

# **2024 ANNUAL WATER QUALITY REPORT**

**FOR THE  
SCILA LANDFILL  
61-SDP-1-78P  
WINTERSET, IOWA**

**by:  
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**January, 2025**



**6022-24A.320**

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# Certification

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# Section 1.0 Background Information

## 1.1 Report Format

Table 1 through Table 18 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.h. of the Permit, dated November 18, 2024 (Doc #111332).

## 1.2 Report Priority

Sampling in accordance with Table 1 and Table 2 is recommended. It is recommended that detection, assessment, and corrective action monitoring continue in accordance with the approved HMSP as approved in Special Provision 4.a. of the Permit, dated November 18, 2024 (Doc #111332). An Alternate Source Demonstration (ASD) related to metals at MW-28 has been completed and was confirmed on May 7, 2024 (Doc # 110008). Based on the ASD, continued assessment monitoring is proposed at MW-28 in lieu of Assessment of Corrective Measures activities.

## 1.3 Period of Report Coverage

Water quality data evaluation is based on a running compilation of data beginning on September 23, 2014. Statistical evaluations herein are based on the most recent water quality data collected January 8, 2024; March 6, 2024; June 3, 2024; September 18, 2024; and December 9, 2024.

## 1.4 Current Site Map

Figure 1 and Figure 2 are attached illustrating the current site and property boundaries. Figure 3 is a Site Plan of the area of interest that features all monitoring well locations, and subsurface gas probe locations in relation to waste boundaries. Figure 4 is a Site Plan of the area of interest that highlights the approximate boundaries of the bedrock outcroppings and surfaces at the site. Phase 1 Cell A and Cell B expansion is constructed on the Ladore Shale surface. A Water contour Map for the Ladore Shale is included as Figure 5.

## 1.5 Site Status and Applicable Rules

### **Site Location**

The SCILA Sanitary Landfill is located in NW1/4 Section 34, T76N, R27W, Madison County, Iowa. The facility is situated on Highway 92 midway between Winterset and Patterson, Iowa. The facility operates under the Iowa Department of Natural Resources (IDNR) Permit Number 61-SDP-1-78P.

### **Landfill Layout**

The site is situated in the uplands above the Middle River valley to the south. Expansion Areas are designated Cell 1 (2007), Cell 2 (2007), Cell 3 (2011), Cell 4 (2016), and Cell 5 (2018) in the western landfilling area. A contiguous closed landfill is situated to the west of the Subtitle D Landfill Cells 1 and 2 and north of Cell 5. Cell 1, Cell 2, Cell 3, Cell 4, and Cell 5 are actively receiving waste from the planning area.

The Cell A and Cell B of the Phase 1 Expansion Area was approved for waste acceptance on December 11, 2023 in Permit Revision 7 (Doc #108426).

### **Applicable Rules**

Iowa Administrative Code (IAC) 567-113 is applicable to the site due to the contiguous nature of the Closed Landfill and the active areas (Cell 1, 2, 3, 4, and 5). IAC 567-113 is also applicable to the applicable Cell A and Cell B of the Phase 1 Expansion Area.

## 1.6 Summary of Hydrologic Monitoring System Plan (HMSP)

The HMSP sampling performed January 8, 2024; March 6, 2024; June 3, 2024; September 18, 2024; and December 9, 2024 conforms to Permit Provisions.

Water monitoring points and the gas monitoring network are illustrated on Figure 1, Figure 2, Figure 3, and Figure 4. Water Contour Maps are included as Figures 5, Figure 6, and Figure 11. Concentration summary maps are included as Figures 7, 8, 9, and 10 (Unconsolidated Formations - System #1) and as Figure 12, 13, and 14 (Exline Formation – System #4). The current HMSP is summarized in Table 1. The HMSP Implementation Schedule for 2025 is itemized in Table 2. A listing of all site monitoring points that currently exist on site is included in Appendix A.

## MONITORING WELL MAINTENANCE PERFORMANCE REEVALUATION

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

### *High & Low Water Levels*

Current year water elevation data is included on Table 4. Historic water elevation data is included in Table 4A. Water Contour Maps (Figures 5, 6 and 11) dated September 2024 are included with this report. The Water Contour Maps illustrates the water surfaces in the formations of interest at this site. Review of the 2024 data does not indicate excessive variability compared to historic water elevation data.

### *Well Depth & Sedimentation*

Well depth measurements were made in September, 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 originally measured horizontal hydraulic conductivity testing results (2016 through 2024) for each site monitoring well is included on Table 4. Horizontal hydraulic conductivities ranged between  $10^{-3}$  cm/sec and  $10^{-7}$  cm/sec.

Field recovery data recorded for March 6 2024 (on Table 4) indicates that the monitoring wells recover to at least 90% recovery within 6 to 24 hours after purging. The exception is at MW-32 and the Exline Formation wells MW-14D, MW-39D, MW-41D, and MW-42D where greater than 24 hours was required for the wells 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)"P", and should be evaluated again in 2026.

Based on the apparent static condition of the water table and the water surfaces across the site, the conclusions of the well recharge evaluation, and the existing water elevation database, it appears that the semi-annual water elevation data is sufficient to adequately monitor the hydrologic condition of the site. Therefore, it appears that the integrity of monitoring wells is intact, that the wells are appropriately located to detect impact from the fill, and that no changes in monitoring system are recommended.

### *MW-4 (aka MW-4A), MW-4B, and MW4C*

The well heads at MW-4, MW-4B, and MW4C were severely damaged on March 5, 2022 by moving debris from a tornado that destroyed most structures on the site near MW-4, MW-4B, and MW4C. MW-4A and

MW-4C were properly plugged on October 25, 2024 (Doc #111164). The well head at MW-4B was successfully repaired on August 7, 2023. MW-4B is retained for water elevation measurements.

#### *GU-1*

GU-1 tile is a monitoring point for the west lagoon as required by IDNR for demonstration that the west lagoon is not leaking. The lagoon is built on unconsolidated fill that was historically placed on top of the underlying bedrock. GU-1 tile is placed within the unconsolidated fill soils. GU-1 has been consistently recorded as dry since installation. The fact that GU-1 is dry is interpreted to be a positive finding and sufficiently demonstrates that the west lagoon liner has not leaked. This information is deemed to be more valuable and more immediately telling than recording water quality trends over time.

#### *Cell A and Cell B, Phase 1 Expansion Area*

Groundwater underdrains constructed in 2023 in the Phase 1 Expansion include GU-2, the underdrain located below the east lagoon, GU-A, the underdrain beneath Cell A, and GU-B, the underdrain beneath Cell B. Water samples were collected from each of the underdrains in November and December, 2023.

Monitoring wells MW-45A (completed in the Ladore Shale) and MW-45D (completed in the Exline Limestone) were constructed December 8, 2023. The five (5) monitoring points (GU-2, GU-A, GU-B, MW-45A, and MW-45D) in the Phase I Expansion Area are incorporated in the HMSP as approved in Special Provision 4.a. of the Permit, dated November 18, 2024 (Doc #111332). Water sampling (baseline) at GU-2, GU-A, and GU-B was initiated in November, 2023 prior to waste acceptance in Cell A or Cell B. Monitoring wells MW-45A and MW-45D were developed on January 8, 2024. Water quality sampling at MW-45A and MW-45D was initiated on March 6, 2024 prior to waste acceptance in Cell A or Cell B.

Construction documentation of the groundwater underdrains is included in the Quality Control and Assurance Report (QC&A Report) for the “Phase 1, Cell A&B Expansion” (Doc #108364). Monitoring Well Construction Documentation for Monitoring Wells MW-45A and MW-45D was submitted January 11, 2024 (Doc # 108772).

## Section 2.0 Reporting Period Monitoring Activities

A summary of the planned 2025 sample collection events at each monitoring point is included on Table 2. A comprehensive summary of all sampling episodes to date are included in the Table 2A. Field sampling data related to the January 8, 2024; March 6, 2024; June 3, 2024; September 18, 2024; and December 9, 2024 sampling episodes are included on the field forms (IDNR Form 542-1322) in Appendix B.

A comprehensive summary of Analytical Data for the episodes between March 25, 2008 and September 18, 2024 is included on Table 9.

Per the Permit dated November 18, 2024 (Doc #111332) the HMSP includes the following:

#### Glacial Till/Fill (System #1)

Background Points *Future MW-4A substitution*, MW-18, and MW-38A.

Downgradient Point of Compliance (POC) Wells MW-1R, MW-6A (Bethany Falls), and MW-45A (Ladore Shale)

Downgradient Attenuation Zone (AZPOC) points MW-21, MW-44, Tile 1 (corrective action system), Tile 2 (corrective action system).

Groundwater Underdrain Points GU-1 (west lagoon), GU-2 (east lagoon), GU-A (Cell A), and GU-B (Cell B).

Exline Limestone Formation (System #4)

Background MW-11C, MW-39D, MW-41D, and MW-42D

Downgradient POC MW-14D, MW-17R, MW-28, and MW-45D (intrawell methods too)

Surface Water Monitoring (System #5)

Background SW-1

Downgradient POC SW-2B

Supplemental Groundwater Monitoring Wells

MW-8B (Unconsolidated). Cobalt SSL – AZPOC is MW-21

MW-9AR (Unconsolidated). Cobalt, cis-1,2-dichloroethylene, and Vinyl Chloride SSLs – AZPOC is Tile 1 & Tile 2

MW-15R (Unconsolidated). Arsenic SSL – AZPOC is MW-44

Passive Engineered Conveyance Structure

SW-102

Corrective Action Monitoring Points

MW-31

MW-32

Leachate Well LW-26

Passive Landfill Gas Vents (Vents) 1-6

It is recognized that GU-2, GU-A, GU-B, and MW-45A are completed in the Ladore Shale and will require consideration as a separate groundwater monitoring system based on the baseline water quality collected from the Ladore Shale sampling points in 2023 and 2024. Intrawell statistical methods are appropriate to GU-2, GU-A, GU-B, and MW-45A since baseline water quality was established prior to acceptance of waste in Cell A and Cell B. Similarly, intrawell statistical methods are also appropriate to the MW-45D (along with interwell methods) since baseline water quality at MW-45D was established prior to acceptance of waste in Cell A and Cell B.

2.1 Current Detection Monitoring Activities/Sampling Requirements

*Till/Bedrock Interface* - Background wells are the *future Substitute point for MW-4A*, MW-18, and MW-38A. Downgradient wells/points are MW-1R (POC), monitoring well MW-21 (AZPOC), monitoring well MW-45A (POC), west lagoon underdrain GU-1 (POC), east lagoon underdrain GU-2 (POC), Cell A underdrain GU-A (POC), and Cell B underdrain GU-B (POC), remain in detection monitoring.

*Exline Bedrock System* - Background wells MW-11C, MW-39D, MW-41D, and MW-42D and downgradient monitoring well MW-45D remain in detection monitoring.

*Surface Water System* - Surface water sampling points SW-1 (background) and downgradient SW-2B remain in detection monitoring.

2.2 Current Assessment Monitoring Activities

*Till/Bedrock Interface* – MW-6A (POC) and MW-44 (AZPOC) are included in the Assessment Monitoring Program.



*Exline Bedrock System* –MW-14D (POC), MW-17R (POC), and MW-28 (POC) are in the Assessment Monitoring Program.

2.3 Current Corrective Action Activities

MW-8B, MW-9AR, and MW-15R are Supplemental wells within the originally defined plumes that are included in the Corrective Action Monitoring System. Tile 1 (AZPOC – Corrective Action System) and Tile 2 (AZPOC – Corrective Action System) are discharges from the corrective action remedy (groundwater cutoff tile).

Additional monitoring points are included in the approved Corrective Action Monitoring System; Tile 1, Tile 2, MW-31, MW-32, LW-26, and Vents 1-6.

2.4 Passive Engineered Conveyance Structure (PECS)

The Passive Engineered Conveyance Structure (PECS) performance is monitored for VOC at SW-102.

## 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 South Central Iowa Landfill, First Semi-Annual Monitoring Event in 2024, dated May, 2024 is included in Appendix C.1. The Groundwater Statistics Report for the South Central Iowa Landfill, Second Semi-Annual Monitoring Event in 2024, dated October, 2024 is included in Appendix C.2.

The Analytical Reports for the laboratory testing of the January 8, 2024; March 6, 2024; June 3, 2024; September 18, 2024; and December 9, 2024 sampling episodes are included in Appendix D.

### QUALITY ASSURANCE/QUALITY CONTROL

A blind duplicate sample was collected at MW-28 during the March 6, 2024 sampling episode. A blind duplicate was collected at MW-41D during the September 18, 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 the 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) A result is non-detected.

The results of the blind duplicate and the monitoring well results (both March 6, 2024 and September 18, 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 # 80699). A TSS and Field Turbidity Evaluation Report was prepared and submitted on January 28, 2015 (Doc# 82349) and was approved by IDNR on May 5, 2015 (Doc #83305). The approved TSS and Field Turbidity Evaluation Report includes a requirement to evaluate and sort data within the background data pool and retain only data that is validated as appropriate.

“No-Purge” sample methods were employed at this site beginning September 23, 2014. The background data for sample collection episodes that occurred prior to September 23, 2014 have been removed in accordance with IDNR requests to do so. A summary table of field measured turbidity is included in Appendix E.

Upgradient Data, Table 1, Attachment B (shallow groundwater); Upgradient Data, Table 1, Attachment D (bedrock groundwater); and Upgradient Data, Table 1, Attachment F (surface water) included in the October 2024 Statistical Evaluation Report (Appendix C.2) includes a summary of the background data. The site prediction limits established in the 2024 Statistical Evaluation Reports (Appendix C.1 and C.2) are based on the validated background. The calculated Site Prediction Limits are in Table 5.

## SITE SPECIFIC GWPS

Table 5 includes the comparison of the site prediction limits to the published IAC 567, Chapter 137 Statewide Standard. The instances where the Prediction Limit exceeds the published IAC 567, Chapter 137 Statewide Standard are highlighted in yellow in Table 5.

Previously approved Site-Specific GWPS include the following:

### ***Shallow System***

<u>Compound</u>	<u>Site-Specific GWPS</u>	<u>IAC 137 GWPS</u>
Arsenic	48.58 ug/L	10.0 ug/L
Cobalt	7.2 ug/L	2.1 ug/L

### ***Exline System***

<u>Compound</u>	<u>Prediction Limit</u>	<u>IAC 137 GWPS</u>
Antimony	10.9 ug/L	6.0 ug/L
Cobalt	5.4 ug/L	2.1 ug/L

The Site-Specific GWPS should not be set lower than the Site Prediction Limit calculated from the site background data. For this report, the values itemized above are utilized as the Site-Specific GWPS for the respective HMSP Systems. For all other compounds the published IAC 567, Chapter 137 Statewide Standard are utilized as the GWPS. Site-Specific GWPS are included on Table 7, 8, and 10.

## SUPPLEMENTAL WELL EVALUATION

Supplemental Wells MW-8B, MW-9AR, and MW-15R are not evaluated statistically. Time series trend analyses are evaluated at MW-8B, MW-9AR, and MW-15R to observe changes in water quality over time.

Time Series plots illustrate the trends in Supplemental Wells MW-8B, MW-9AR, and MW-15R and are included in Attachment F of The Groundwater Statistics Report for the South Central Iowa Landfill, Second Semi-Annual Monitoring Event in 2024, dated October, 2024 (Appendix C.2).

## STATISTICALLY SIGNIFICANT INCREASE (SSI) EVALUATION

The detected concentrations of each compound are compared to the site prediction limit for each respective compound calculated based on the background data set. In detection monitoring wells, a detected concentration for a compound that is in excess of the calculated site prediction limit is recorded as a Statistically Significant Increase (SSI). In 2024 there were no new SSI recorded. MW-14D and MW-44 were previously (2023) moved to the assessment monitoring system. There were no other SSI recorded at the downgradient monitoring wells included in the detection monitoring system.

In assessment monitoring wells, the exceedances are not required to be reported as SSI. A running summary of recorded exceedances of the prediction limit is included in Appendix F.

Table 6 is a summary of all compounds at site monitoring wells that have exceeded a *current* prediction limit in 2024. Table 7 includes brown highlighted values that signify detected concentrations that exceeded the prediction limits (SSI) over time at the assessment monitoring wells.

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

## ASSESSMENT MONITORING SUMMARY

Assessment monitoring is required to be repeated annually per IAC 567-113.10(6)b. However, a five (5) year full Appendix II sampling frequency is approved (in Special Provision 4.f. of the Permit, dated December 11, 2023 (Doc #108426)) where at least two (2) full Appendix II samples have been collected.

Full rounds of Appendix II assessment monitoring have been completed at MW-6A (2 episodes), MW-8B (3 episodes), MW-9A/9AR (4 episodes), MW-15/15R (2 episodes), MW-14D (3 episodes), MW-17R (3 episodes), Tile 1 (2 episodes), Tile 2 (2 episodes), MW-28 (2 episodes), and at MW-44 (1 episode).

Appendix II detections (beyond the Appendix I list) have **not** been detected above laboratory method detection limits, with the following exceptions:

*MW-9A (Supplemental)* - bis(2-ethylhexyl) phthalate (9.0 ug/L) in September, 2010

*MW-15R (Supplemental)* - bis(2-ethylhexyl) phthalate (12.0 ug/L) in March, 2017

*MW-6A (assessment)* - bis(2-ethylhexyl) phthalate (55.0 ug/L) in March, 2019; (7.0 ug/L) at MW-6A in March, 2020

*MW-14D (assessment)* - bis(2-ethylhexyl) phthalate (10.0 ug/L) in March, 2024.

*MW-17R (assessment)* - bis(2-ethylhexyl) phthalate (13.0 ug/L) in March, 2022.

*MW-44(assessment)* - bis(2-ethylhexyl) phthalate (14.0 ug/L) in March, 2024 and (10.0 ug/L) in September, 2024.

Based on the results to date, the detection of bis (2-ethylhexyl) phthalate occurs as isolated events. The request to discontinue bis (2-ethylhexyl) phthalate sampling at assessment and corrective action monitoring points, except during the required full Appendix II sampling events on the five (5) year frequency was approved by IDNR on June 9, 2017 (Doc #89661).

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

## **STATISTICALLY SIGNIFICANT LEVEL (SSL) EVALUATION**

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

The exception to this method is MW-28. An Alternate Source Determination (ASD) has been completed at MW-28 and the inorganic compounds detections at MW-28 are attributed to the reducing conditions documented in the subsurface near MW-28. The ASD was completed in late 2021 (Doc #102120) has been confirmed in the field in 2022 (Doc #104138); in 2023 (Doc # 106469); and in 2024 (Doc #110008) as required.

The SSL Evaluation is based on data for each downgradient monitoring well. 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 95% LCL values at assessment/corrective action monitoring wells are below the applicable Site Specific GWPS or Statewide Standards published in IAC 567, Chapter 137, except where highlighted in yellow in Table 7.

Based on the evaluations to date and review of Table 7, the following exceedances of the 95% LCL are identified (none in the last 3 years):

### Attenuation Zone Point of Compliance (AZPOC) Wells

95% LCL Exceedances in 2024 at MW-21 – None

95% LCL Exceedances in 2024 at Tile 1 – None

95% LCL Exceedances in 2024 at Tile 2 – None (Vinyl Chloride (9/14/2021 only))

95% LCL Exceedances in 2023 at MW-44 – None

### Point of Compliance Wells

There were no new 95% LCL Exceedances at any POC wells.

### Alternate Source Demonstration (ASD) Findings MW-28

Elevated detections of arsenic, barium, cobalt, and nickel are recorded at MW-28, and the cobalt concentrations yield 95% LCL concentrations above the GWPS. However, the elevated inorganic compound detections are attributed to the reducing conditions documented in the subsurface near MW-28. The reducing conditions are characterized by low dissolved oxygen concentrations, and a negative ORP.

Low pH is also documented at MW-28 and facilitates the release of inorganics from the mining spoils present at MW-28. Based on the ASD, the assessment of corrective measures are not warranted at MW-28. Due to the on-going detection of low-level (below the GWPS) concentrations of VOC at MW-28 (cis-1,2-dichloroethylene and vinyl chloride), MW-28 is maintained in the assessment monitoring program at the site.

## **ASSESSMENT OF CORRECTIVE MEASURES**

The initial Assessment of Corrective Measures report related to MW-9A was submitted July 1, 2011. Revision of the ACM for the area near MW-9A and near MW-8B was submitted in March, 2017 (Doc #88918) and a Supplement was submitted September 11, 2019 (Doc #95931) that addressed MW-8B, MW-9AR, and MW-14D. The ACM report was approved by IDNR on October 11, 2019 (Doc #96104).

The arsenic impact at MW-15R was incorporated into the approved ACM on August 14, 2023 (Doc # 107470).

## **CORRECTIVE ACTION MONITORING & EVALUATIONS**

The corrective measure was selected by SCILA on January 15, 2020 and the final Corrective Action Plan (CAP) and Corrective Action Monitoring Plan (CAMP) was submitted January 24, 2020. The CAP/CAMP was approved by IDNR on June 4, 2020 (Doc #97864). The Corrective Action includes Monitored Natural Attenuation coupled with the construction of six (6) passive landfill gas vents along the west edge of the waste mass. The six (6) vents were constructed August 17, 2020 and August 18, 2020. Construction documentation for the six (6) vents was submitted on September 11, 2020 (Doc # 98442) and was approved September 25, 2020 (Doc #98526).

The arsenic impact at MW-15R was assessed and incorporated into the remedy (Monitored Natural Attenuation coupled with the construction of six (6) passive landfill gas vents along the west edge of the waste mass) in 2023. The Corrective Action Plan (CAP)/Corrective Action Monitoring Plan (CAMP) were revised and submitted on August 3, 2023 (Doc #107390) to address the arsenic at MW-15R. The revised CAP/CAMP was approved by IDNR on August 14, 2023 (Doc #107470).

The Confidence Intervals of Attenuation Zone Point of Compliance (AZPOC) Wells are utilized to determine the success of the Corrective Measures (Monitored Natural Attenuation) implemented June 4, 2020 at Supplemental Wells MW-8B, MW-9AR, and MW-15R. As noted previously, Tile 2 recorded a 95% LCL that exceeded the GWPS (SSL) for vinyl chloride on 9/14/2021.

The 95% UCL evaluation for Tile 2 is presented in Table 8. The green highlights in Table 8 indicate the 95% UCL values for vinyl chloride that exceed the GWPS.

Table 10 represents the summary of the recorded SSI and SSL over time at Tile 2. Table 11 includes the evaluation of the corrective action trends over time.

Note that there are no ACM or corrective measures required at Tile 2 based on the SSL. Tile 2 is the collected groundwater discharge from the corrective action for the facility. The discharge from Tile 2 is directed to the Passive Engineered Conveyance System (PECS) and is successfully treated.

### *Evaluation of Cobalt at Supplemental Well MW-8B and AZPOC MW-21*

Based on recorded data, there is no SSI for cobalt at MW-21 (Table 7). The remedy is considered complete as of June, 2023 (three years following selection of the remedy).

*Evaluation of Cobalt, Cis-1,2 DCE, and Vinyl Chloride at Supplemental Well MW-9AR and AZPOC Tile 1 & Tile 2*

The 95% LCL value for cobalt, cis-1,2-dichloroethylene, and vinyl chloride at Tile 1 are below the GWPS. The 95% LCL value for cobalt and cis-1,2-dichloroethylene, at Tile 2 are also below the GWPS. Only the 95% LCL/95% UCL value for vinyl chloride at Tile 2 remains above the GWPS. This indicates that additional time is required until the remedy can be considered complete at MW-9AR.

The detection of VOC at Tile 1 and Tile 2 is expected, as the sample collection points represent the outfall of the cut-off trench and groundwater collection tile installed to truncate the VOC migration route, to release migrating gas, and to actively remedy the release near MW-9AR. The remedy is documented as effective, but not yet complete.

The performance of the Passively Engineered Conveyance System (PECS) to treat the VOC impacts at Tile 1 and Tile 2 is demonstrated to be effective as all VOC at PECS sampling point (SW-102) are undetected and reported as below the MRL (Table 12).

*Evaluation of Arsenic at Supplemental Well MW-15R and AZPOC MW-44*

Based on recorded data, there are no SSI for arsenic at MW-44 (Table 7). If the water quality at MW-44 remains the same, the remedy at MW-15R will be complete in August of 2026 (three years following selection of the remedy).

*Corrective Action Monitoring Plan Findings*

Corrective Action Monitoring has been on-going at MW-31 and MW-32 (Table 13). Corrective Action Monitoring at Leachate Well LW-26 was initiated in 2020 (Table 14). Monitoring of landfill gas at Vents 1-6 was initiated in 2020 (Table 15). The required annual Corrective Action Monitoring of dissolved methane, ethane, ethene and alkalinity and pH at LW-26 and Supplemental Wells (MW-8B, MW-9AR) was initiated in 2020 (Table 16). Corrective Action Monitoring of dissolved methane, ethane, ethene and alkalinity and pH at Supplemental Well MW-15R started in 2023.

At MW-31 and MW-32 (Table 13) the detected VOC compound concentrations in 2020-2024 are below the applicable GWPS (Statewide Standards published in IAC 567, Chapter 137).

CAMP monitoring events at LW-26 (Table 14) indicate that ammonia (as nitrogen) and cobalt are typically detected at concentrations that exceed GWPS. In 2024, the detected concentration of benzene at LW-26 was also above the GWPS. To date there is insufficient data to ascertain any long-term trends in the data.

Monitoring events have been ongoing (quarterly) since 2020 at landfill gas Vents 1-6 (Table 15). Review of the data indicates gas concentrations (%LEL) indicate a slightly increasing trend at all vents, except Vent #1. The data is still considered preliminary and is anticipated to change over time.

Six (6) rounds of monitoring for dissolved methane, ethane, ethene and alkalinity and pH have been completed as part of the CAMP (Table 16), except at MW-15R where only two (2) rounds are complete. Trends are not established, but do not appear to be increasing. It is noted that ethane and ethene are undetected at all monitoring points (LW-26, MW-8B, MW-9AR, MW-14D, and MW-15R).

## Section 4.0 Leachate Collection System Performance Evaluation

Between January 1, 2024, and December 31, 2024, staff reported that approximately 2,800,000 gallons of leachate were recirculated to Cells 1, 2, 3, 4, and 5 in accordance with Special Provision X.5 of the July 12, 2021 SDP Permit. Dates and reported volumes of leachate recirculation are included on the Daily/Weekly Leachate Recirculation Log forms for 2024 in Appendix H.1.

A revised Leachate Recirculation Operation Plan was submitted to IDNR on August 27, 2018 (Doc #93043) and approved in Special Provision X.5 in SDP Permit dated December 11, 2023 (Doc #108426). Note that, in accordance with the Leachate Recirculation Operation Plan, compliant measurements from LW-101 were taken weekly during recirculation in 2024 and leachate thickness at LW-101 was recorded at less than 1' during recirculation activities. The dates of measurement of LW-101 are included on the Daily/Weekly Leachate Recirculation Log forms for 2024 in Appendix H.1 and in Table 17.

The facility also has an Authorization to Discharge leachate at the Des Moines Metropolitan Wastewater Reclamation Authority (WRA); however, no leachate was disposed of at the WRA in 2024.

### *RCRA Subtitle D Cells 1, 2, 3, 4, and 5 LCP*

The leachate collection system in Cell 1 and Cell 2 was completed in July, 2007. Cell 1 and Cell 2 were approved for waste deposition by IDNR on August 3, 2007. The leachate collection system in Cell 3 was completed in October, 2011. Cell 3 was approved for waste deposition by IDNR on October 25, 2011. The leachate collection system in Cell 4 was completed in September, 2016. Cell 4 was approved for waste deposition by IDNR on September 15, 2016. The leachate collection system in Cell 5 was completed in August, 2018. Cell 5 was approved for waste deposition by IDNR on August 20, 2018. A leachate head monitoring point (LPZ-101) is constructed near the lowest point of Cell 1, 2, 3, 4, and 5. LPZ-101 measurements are recorded in Table 17 and demonstrate that less than one (1.0) foot of leachate head was recorded in LPZ-101 during all measurement events in 2024.

### *RCRA Subtitle D Phase 1, Cell A & Cell B*

Leachate head piezometers were constructed in Cell A (LPZ-A) and Cell B (LPZ-B). Measurements were initiated on January 8, 2024. LPZ-A and LPZ-B measurements are recorded in Table 17 and demonstrate that less than one (1.0) foot of leachate head was recorded at these points during all measurement events in 2024.

### *Closed Landfill LCP*

In December, 2010 five (5) leachate wells designated LW-21 through LW-25 were installed in satisfaction of Special Provision 2.b. of the SDP Permit. Leachate well LW-1E existed prior to December, 2010 but was not useable as the extraction pump was stuck in the well. Efforts to remove this pump were unsuccessful, and LW-1E was replaced by LW-26 in October, 2015.

Dedicated leachate extraction pumps have been installed in each LW with leachate conveyance piping also installed to each LW. The leachate conveyance piping conveys leachate from the leachate extraction wells to the leachate storage lagoon. Construction documentation on the leachate conveyance piping and pumping system for LW-21 through LW-25 was submitted to IDNR on September 26, 2013 and approved in Permit Amendment #7 dated December 2, 2013. Construction documentation for LW-26 was submitted to IDNR on November 13, 2015. The documentation for the construction of LW-26 and abandonment of LW-1E

was incorporated into the permit on April 15, 2016. Figure 1 in the body of the report illustrates the location of the leachate head monitoring points.

Prior to 2015, the extraction wells were only operated seasonally due to the exposed leachate discharge piping at each well head. Pitless adaptors were installed at each LW in September and October, 2015 to move the discharge piping below the frost line and allow year round operation of the extraction wells.

PVC piping (1-inch or 2-inch diameter) was installed in LW-21, -22, -23, -24, and -25 in August, 2013 and in LW-26 during construction of LW-26 in 2015. The PVC piping allows measurement of leachate elevations in the wells when the pumps, discharge piping, electrical wire, etc. are installed. The monthly leachate head monitoring point measurements are recorded in Table 17.

In the late fall of 2020 separate electric supply lines were installed from the control panel to LW-21 and LW-22. The separate electric services were installed in order to eliminate the recurring overload (and tripped circuit) experienced on the original service line that supplied both LW-21 and LW-22.

On August 17, 2020 the main supply service line to the control panel for the extraction well pumps (located near LW-24) was severed during construction of Landfill Gas Vent #4. Repair of the main supply line was hindered by the inability to get electric materials and equipment during the pandemic. Repair of the main supply line was completed on December 3, 2020.

New pumps and controls for the leachate wells were ordered in November, 2022 with delivery in March, 2023. The pumps and controls were installed in June, 2023 and began operation. It was discovered on July 12, 2023 that the pumps at LW-21 and LW-26 were not operating. Several months were required to properly diagnose the problem with the controls at LW-21 and LW-26. The equipment supplier and the installation contractor eventually determined that the controls at LW-21 and LW-26 had a corrupted configuration file in the system firmware. On December 14, 2023, the configuration files were replaced and the pumping systems at LW-21 and LW-26 began operation.

The controls at LW-21 stopped operating after January 8, 2024 and were removed and sent in for repair. The control box was replaced prior to May 22, 2024 and the pump in LW-21 resumed operation.

The new pumps and controls have led to a marked decrease in downtime for the pumps in the leachate wells. The LCSPE will again be reevaluated in the 2025 AWQR as required by rule.

### *Leachate Storage System*

Leachate collected at the site is stored in either the east or west leachate storage lagoons. Both the east and the west leachate lagoons are constructed with a Subtitle D composite liner.

The west lagoon has a capacity of approximately 651,000 gallons. The lagoon was constructed in 2013 and use of the lagoon was approved by IDNR in Permit Amendment #7 dated December 2, 2013.

The east lagoon was constructed in 2023 in the Phase 1 Expansion Area and has a capacity of 1,005,700 gallons. The lagoon was approved by IDNR in Permit Revision #7 dated December 11, 2023 (Doc #108426).

### *Leachate Line Cleaning*



The leachate gravity collection and conveyance lines in the Subtitle D composite lined area are illustrated in the Figure in Appendix I. The leachate lines were cleaned in December, 2024. As per IDNR regulations, the lines should be cleaned every 3 years (next cleaning will be scheduled for 2027).

## Section 5.0 Gas Monitoring

A Summary table of gas monitoring is as Table 18.

Explosive gas monitoring per 113.9(2) and the approved GMSP was conducted quarterly during the last reporting period (2024). Recorded gas concentrations are below actionable levels.

Explosive gas concentrations are recorded as percent lower explosive limit (% LEL) and were undetected or below action levels at all points during the monitoring episodes.

## Section 6.0 Recommendations

Sampling in accordance with Table 2 is recommended. It is recommended that detection, assessment, and corrective action monitoring continue in accordance with the approved HMSP.

Based on the Alternate Source Demonstration completed at MW-28 for metals (including cobalt), we recommend continued detection/assessment water quality monitoring at MW-28 for 2025 and beyond. Water Quality at MW-28 should continue to be evaluated, along with the site conditions that justify the Alternate Source of cobalt impact, until the statistical evaluation can be augmented with intrawell statistics (in 2026 when 13 data points are available).

We recommend that MW-9AR remain in the HMSP as a Supplemental Well until the cobalt, cis-1,2-dichloroethylene, and vinyl chloride concentrations diminish. The remedy will be considered complete when vinyl chloride concentrations at Tile 1 and Tile 2 demonstrate compliance with water quality standards for three (3) years (estimated 2030).

We recommend that MW-8B remain in the HMSP as a Supplemental Well, but the remedy be considered complete.

We recommend that MW-15R remain in the HMSP as a Supplemental Well until the arsenic concentrations diminish. The remedy will be considered complete when arsenic concentrations at MW-44 demonstrate compliance with water quality standards for three (3) years (estimated 2026).

Continue to monitor the operation of the leachate extraction equipment in the leachate extraction wells.

## Figures

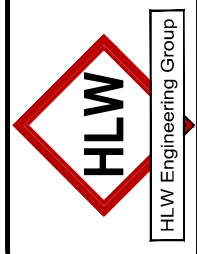


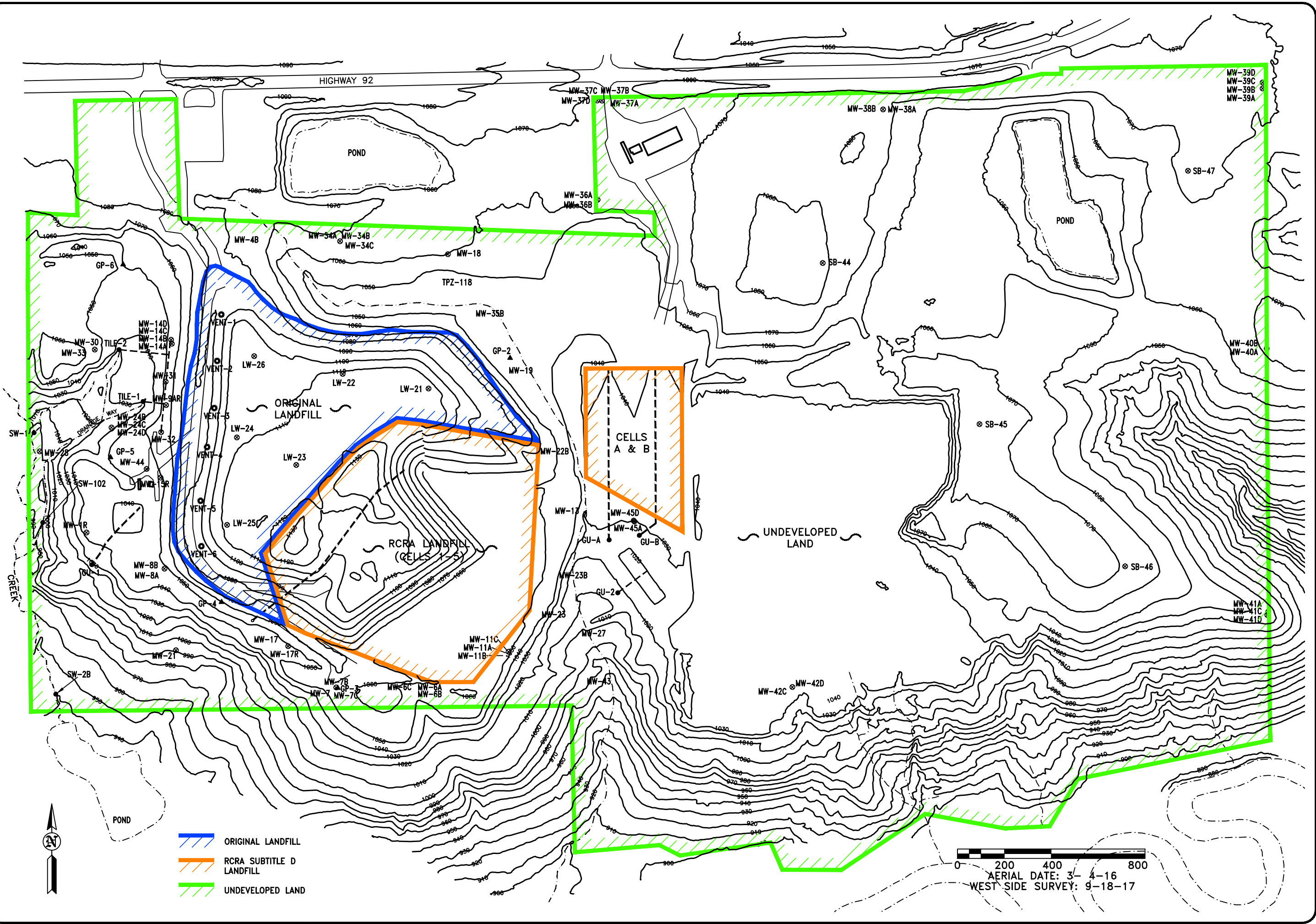
**FIGURE: 1**

REVISION	NO.	DATE
DRAWN	6022	1-16-25
DRA		

**SITE PLAN - AERIAL**  
**SOUTH CENTRAL IOWA SANITARY LANDFILL**  
**WINTERSET, IOWA**

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



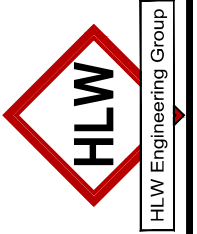


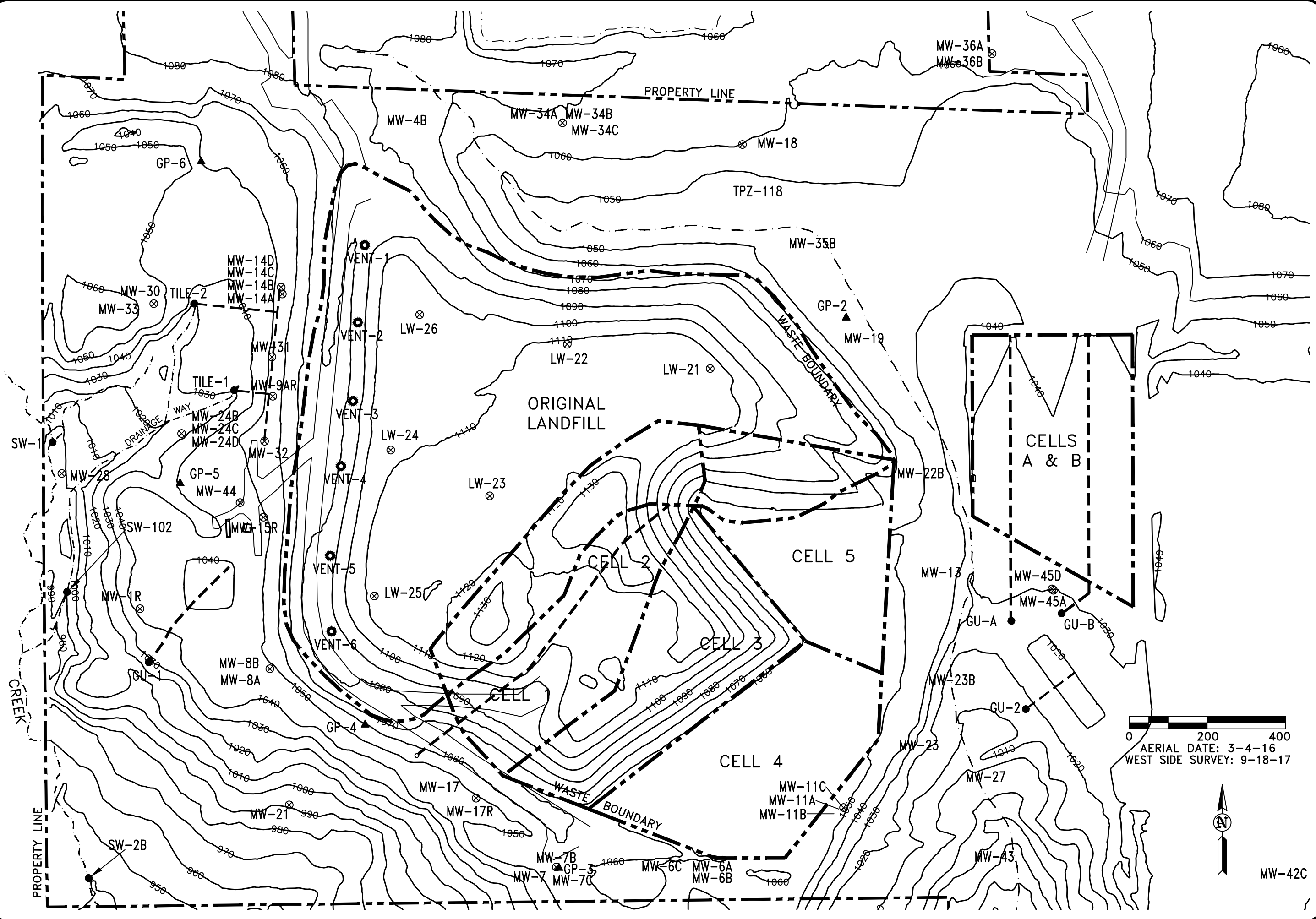
**FIGURE: 2**

REVISION	NO.	DATE
DRAWN	DRA	
PROJECT NO.	6022	DATE
		1-16-25

**SITE PLAN - TOPO**  
**SOUTH CENTRAL IOWA SANITARY LANDFILL**  
**WINTERSET, IOWA**

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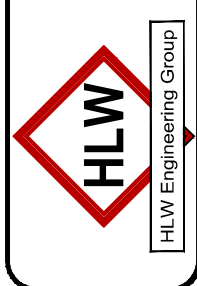


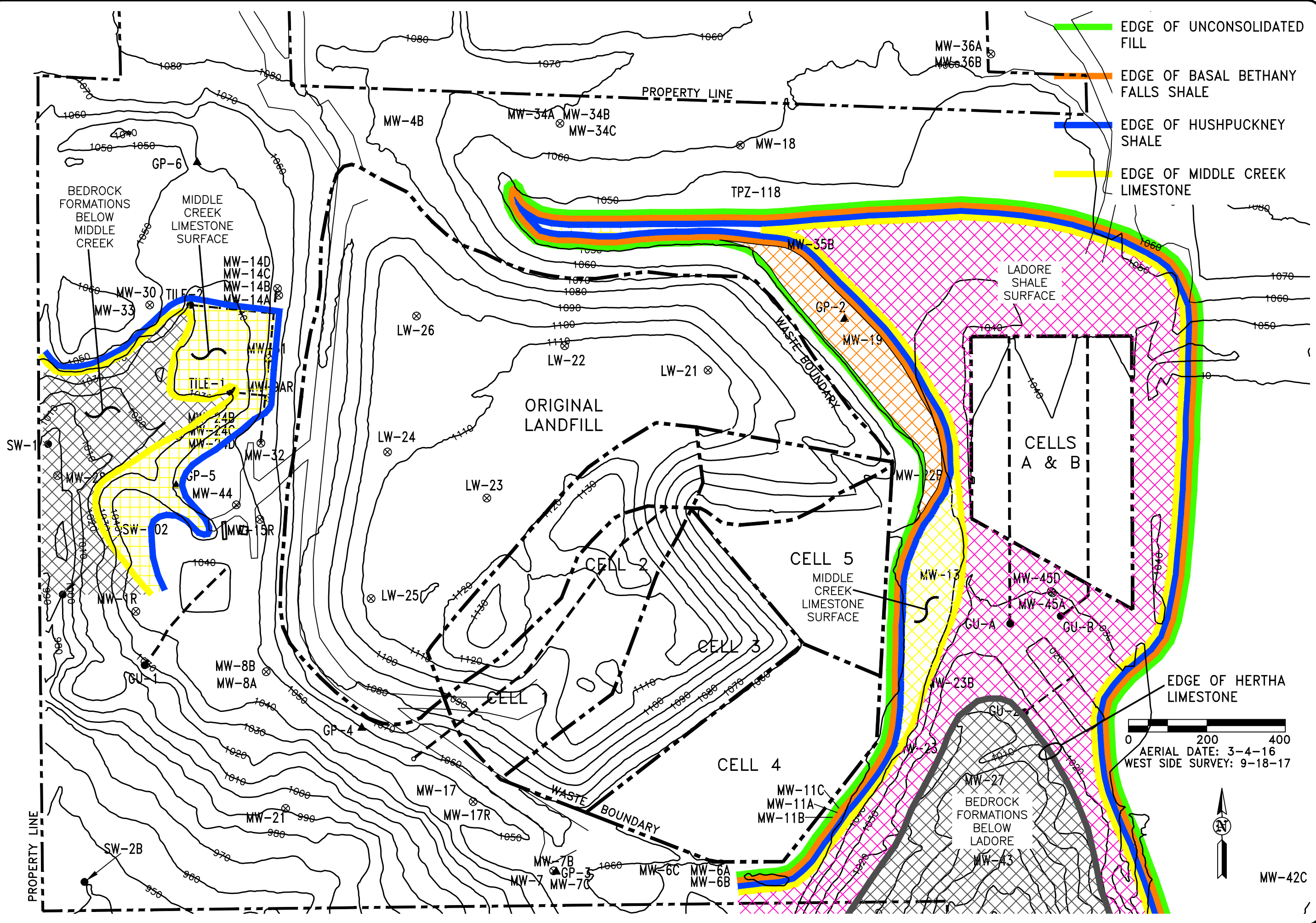
**FIGURE: 3**

REVISION	NO.	DATE
DRAWN	6022	1-16-25
DRA		

**SITE PLAN OF INTEREST**  
**AREA OF INTEREST**  
 SOUTH CENTRAL IOWA SANITARY LANDFILL  
 WINTERSET, IOWA

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 Story City, Iowa 50248  
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 FAX: (515) 733-4146



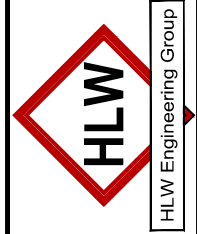


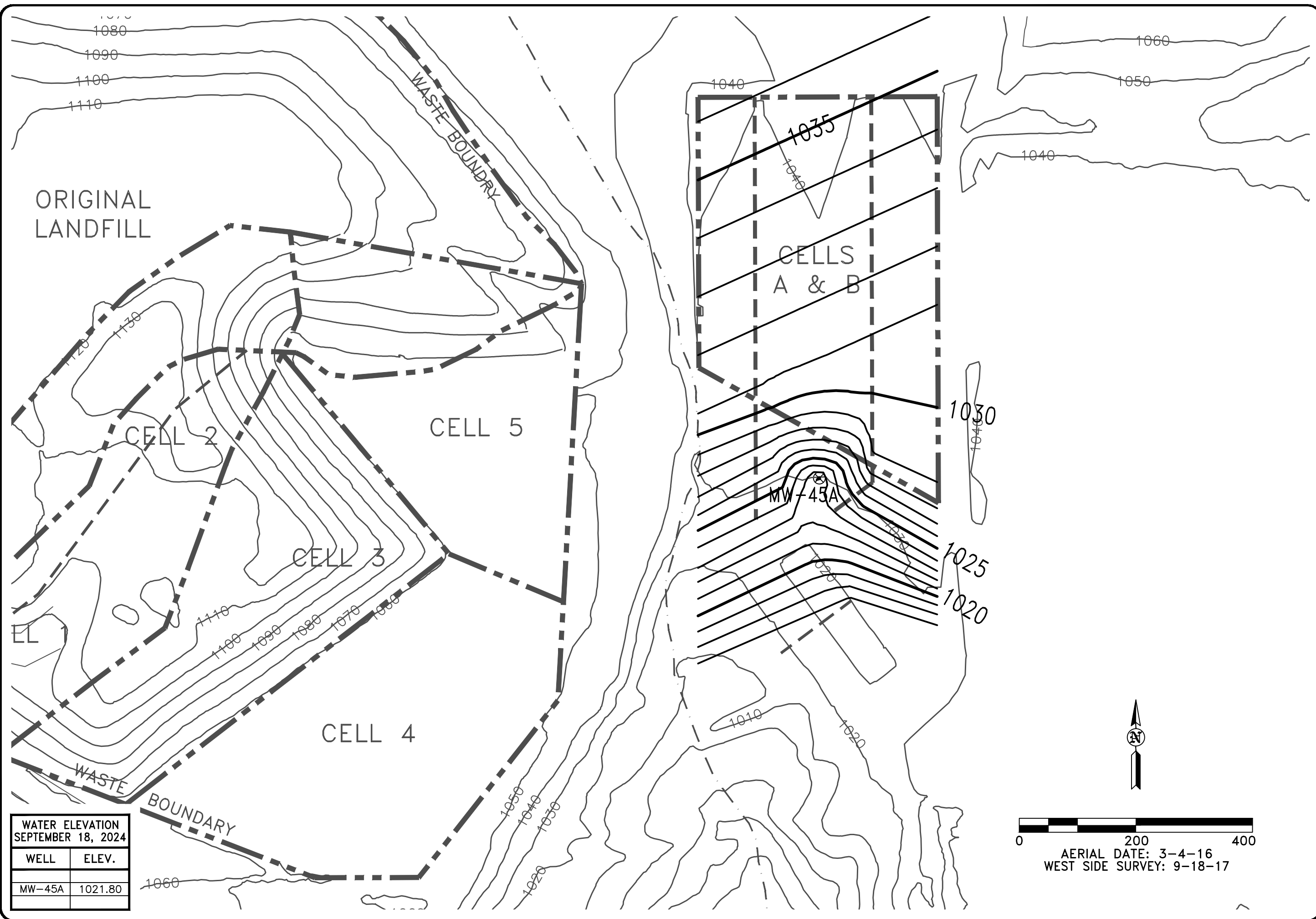
**FIGURE: 4**

REVISION	NO.	DATE
DRAWN	PROJECT NO.	DATE
DRA	6022	1-16-25

**SITE PLAN  
WITH BEDROCK OUTCROPPING  
SOUTH CENTRAL IOWA SANITARY LANDFILL  
WINTERSET, IOWA**

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FAX: (515) 733-4146





ORIGINAL  
LANDFILL

WASTE BOUNDARY

CELLS  
A & B

CELL 2

CELL 5

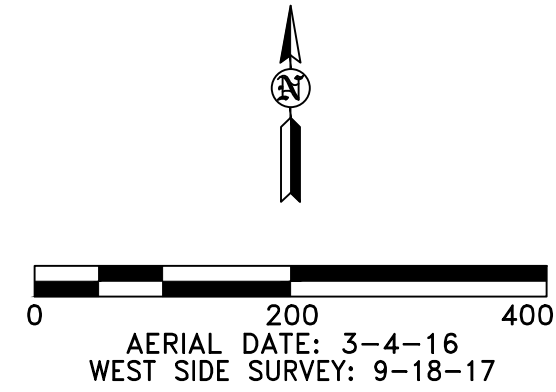
CELL 3

MW-45A

CELL 4

WASTE BOUNDARY

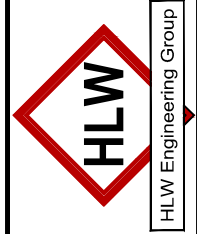
WATER ELEVATION SEPTEMBER 18, 2024	
WELL	ELEV.
MW-45A	1021.80

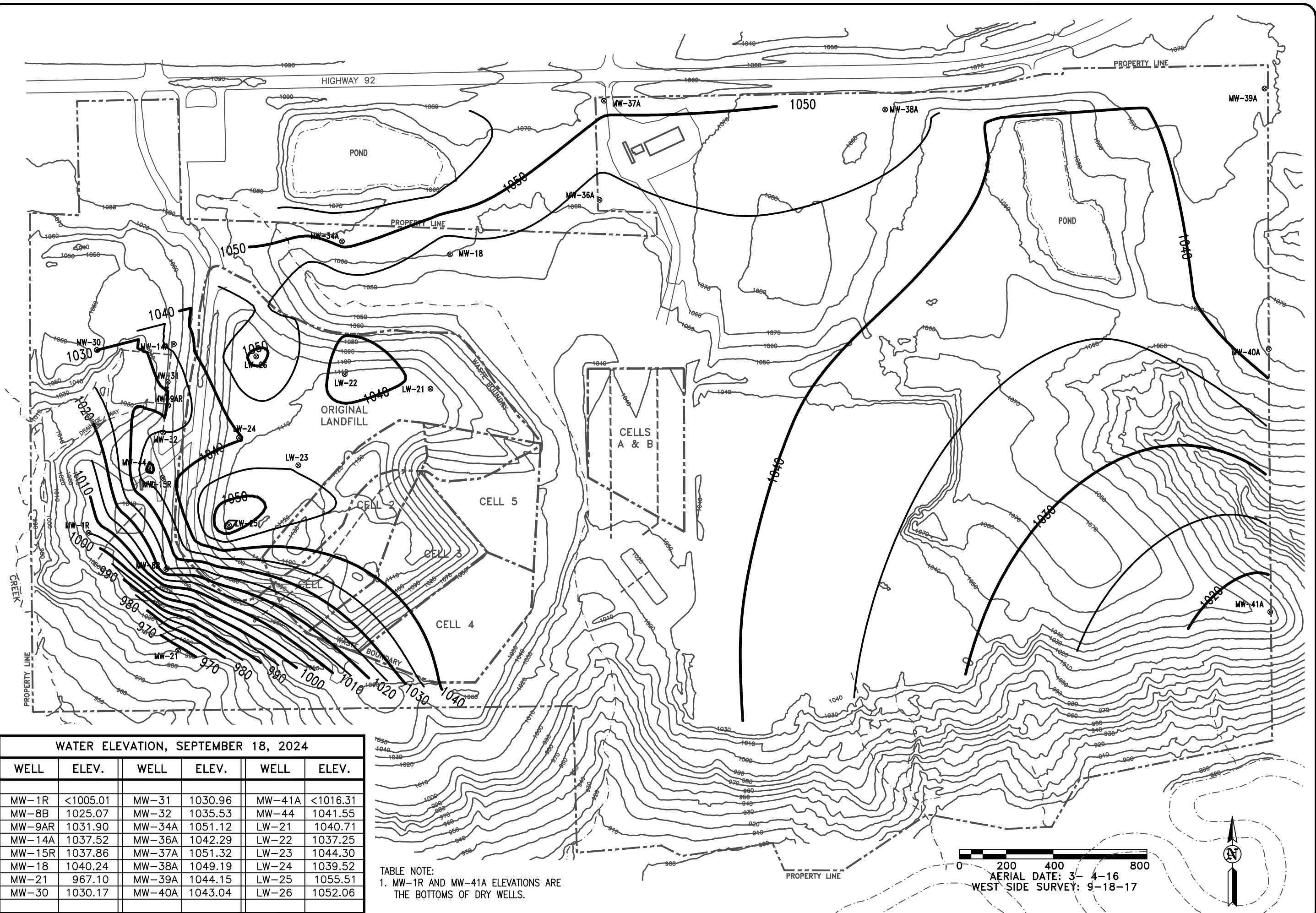


REVISION		NO.	5	DATE	
DRAWN		PROJECT NO.	6022	DATE	1-16-25
DRA					

GROUNDWATER CONTOURS  
GROUNDWATER SYSTEM #6  
LADORE SHALE  
SOUTH CENTRAL IOWA SANITARY LANDFILL  
WINTERSET, IOWA

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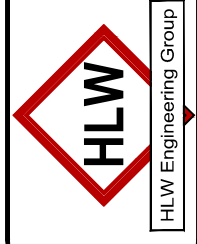
WATER ELEVATION, SEPTEMBER 18, 2024					
WELL	ELEV.	WELL	ELEV.	WELL	ELEV.
MW-1R	<1005.01	MW-31	1030.96	MW-41A	<1016.31
MW-8B	1025.07	MW-32	1035.53	MW-44	1041.55
MW-9AR	1031.90	MW-34A	1051.12	LW-21	1040.71
MW-14A	1037.52	MW-36A	1042.29	LW-22	1037.25
MW-14R	1037.86	MW-37A	1051.32	LW-23	1044.30
MW-18	1040.24	MW-38A	1049.19	LW-24	1039.52
MW-21	967.10	MW-39A	1044.15	LW-25	1055.51
MW-30	1030.17	MW-40A	1043.04	LW-26	1052.06

TABLE NOTE:  
 1. MW-1R AND MW-41A ELEVATIONS ARE THE BOTTOMS OF DRY WELLS.

REVISION		NO.	DATE
DRAWN		PROJECT NO.	DATE
DRA		6022	1-16-25

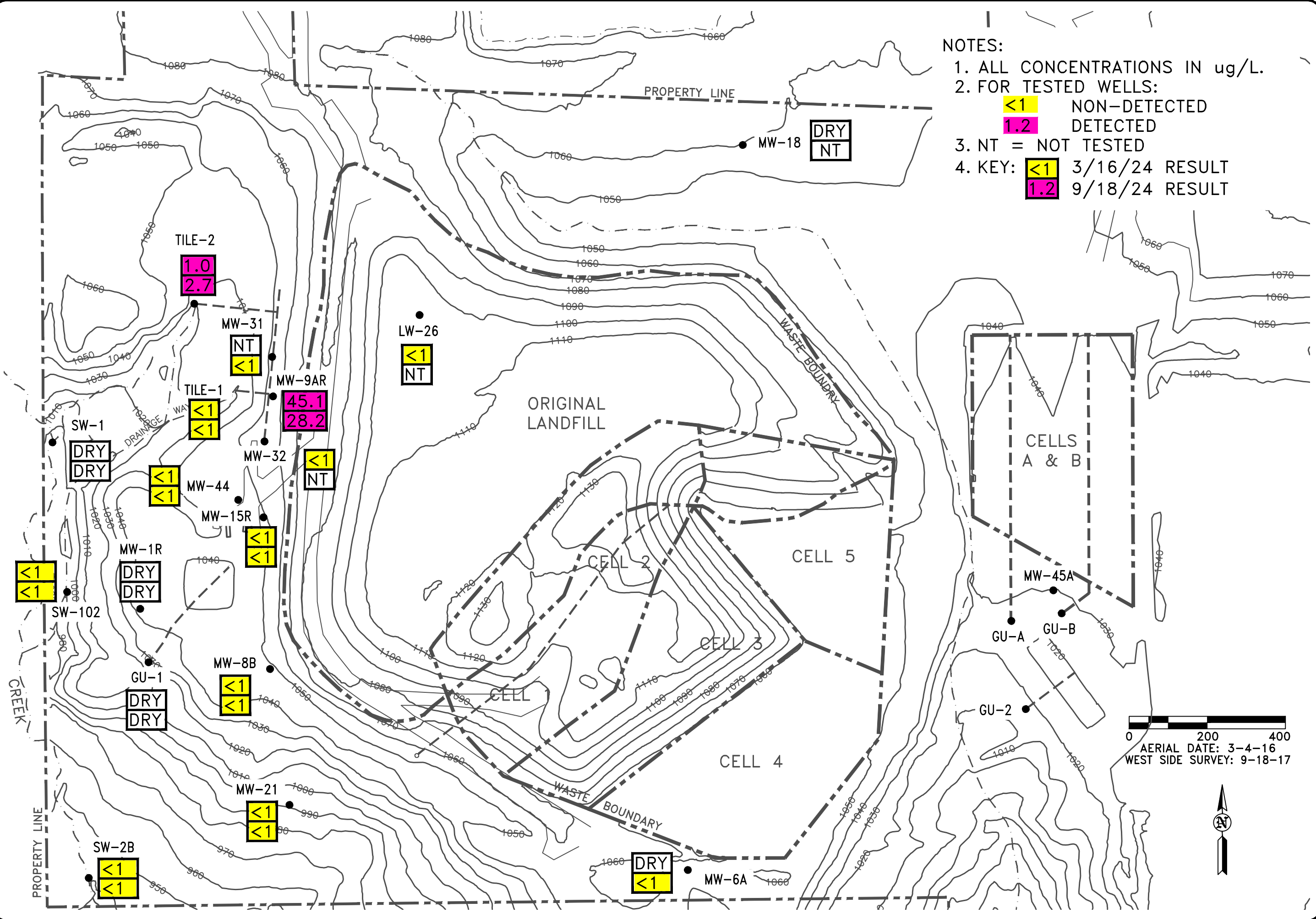
**FIGURE: 6**  
**GROUNDWATER CONTOURS UNCONSOLIDATED SYSTEM #1 TILL/FILL**  
**SOUTH CENTRAL IOWA SANITARY LANDFILL WINTERSET, IOWA**

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 Story City, Iowa 50248  
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 FAX: (515) 733-4146

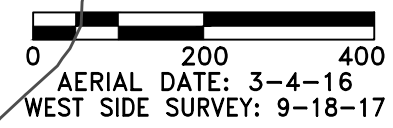


0 200 400 800  
 AERIAL DATE: 3-4-16  
 WEST SIDE SURVEY: 9-18-17





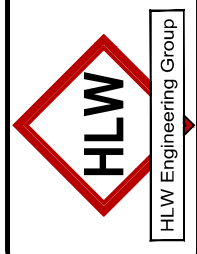
- NOTES:
1. ALL CONCENTRATIONS IN ug/L.
  2. FOR TESTED WELLS:  
<1 NON-DETECTED  
1.2 DETECTED
  3. NT = NOT TESTED
  4. KEY: <1 3/16/24 RESULT  
1.2 9/18/24 RESULT

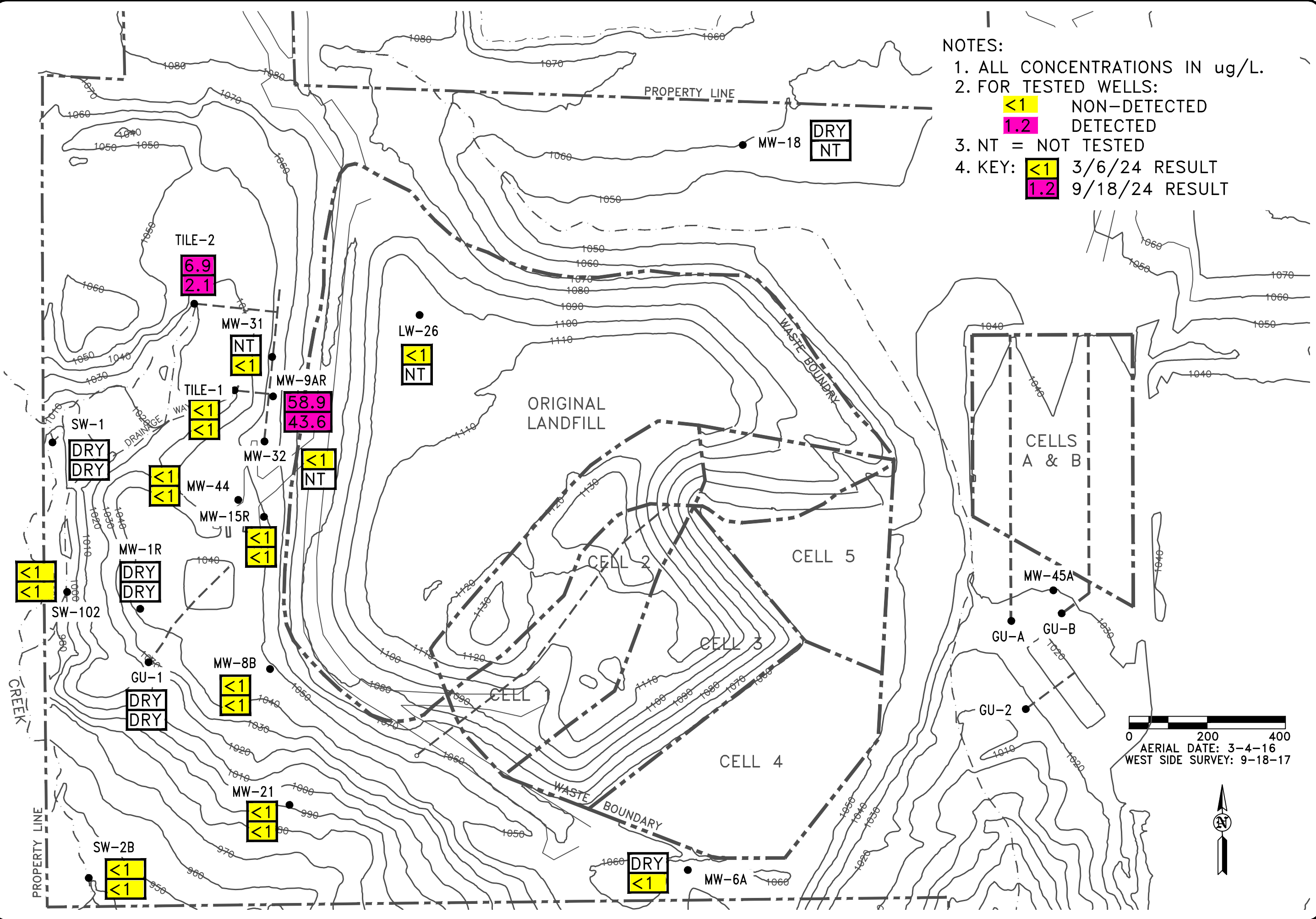


REVISION		NO.	DATE
DRAWN		PROJECT NO.	DATE
DRA		6022	1-16-25

**FIGURE: 7**  
**CONCENTRATION SUMMARY**  
**UNCONSOLIDATED SYSTEM #1**  
**VINYL CHLORIDE**  
**SOUTH CENTRAL IOWA SANITARY LANDFILL**  
**WINTERSET, IOWA**

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 FAX: (515) 733-4146





- NOTES:
1. ALL CONCENTRATIONS IN ug/L.
  2. FOR TESTED WELLS:  
<1 NON-DETECTED  
1.2 DETECTED
  3. NT = NOT TESTED
  4. KEY: <1 3/6/24 RESULT  
1.2 9/18/24 RESULT

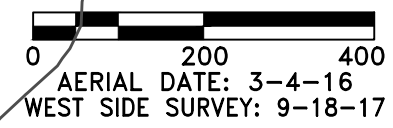
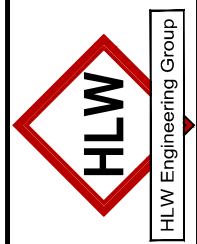
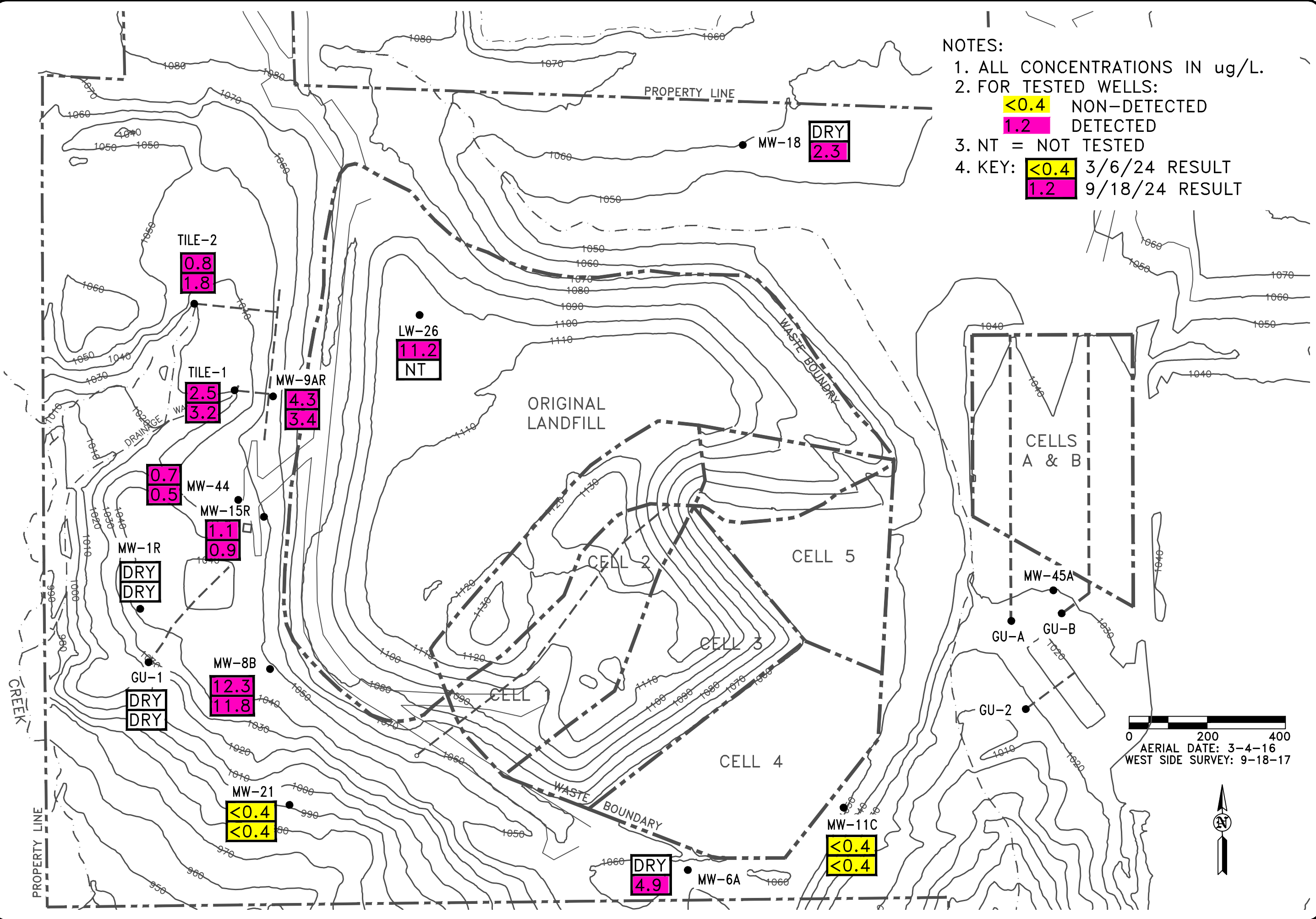


FIGURE: 8		DATE
REVISION	NO.	PROJECT NO.
DRAWN	DRA	6022
		DATE
		1-16-25

**CONCENTRATION SUMMARY**  
**UNCONSOLIDATED SYSTEM #1**  
**CIS-1,2 DICHLOROETHANE**  
 SOUTH CENTRAL IOWA SANITARY LANDFILL  
 WINTERSET, IOWA

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 FAX: (515) 733-4146





- NOTES:
1. ALL CONCENTRATIONS IN ug/L.
  2. FOR TESTED WELLS:  
<0.4 NON-DETECTED  
1.2 DETECTED
  3. NT = NOT TESTED
  4. KEY: <0.4 3/6/24 RESULT  
1.2 9/18/24 RESULT

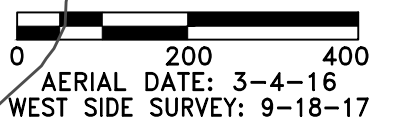


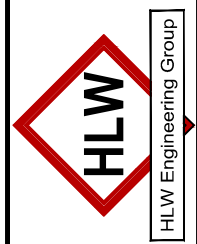
FIGURE: 9

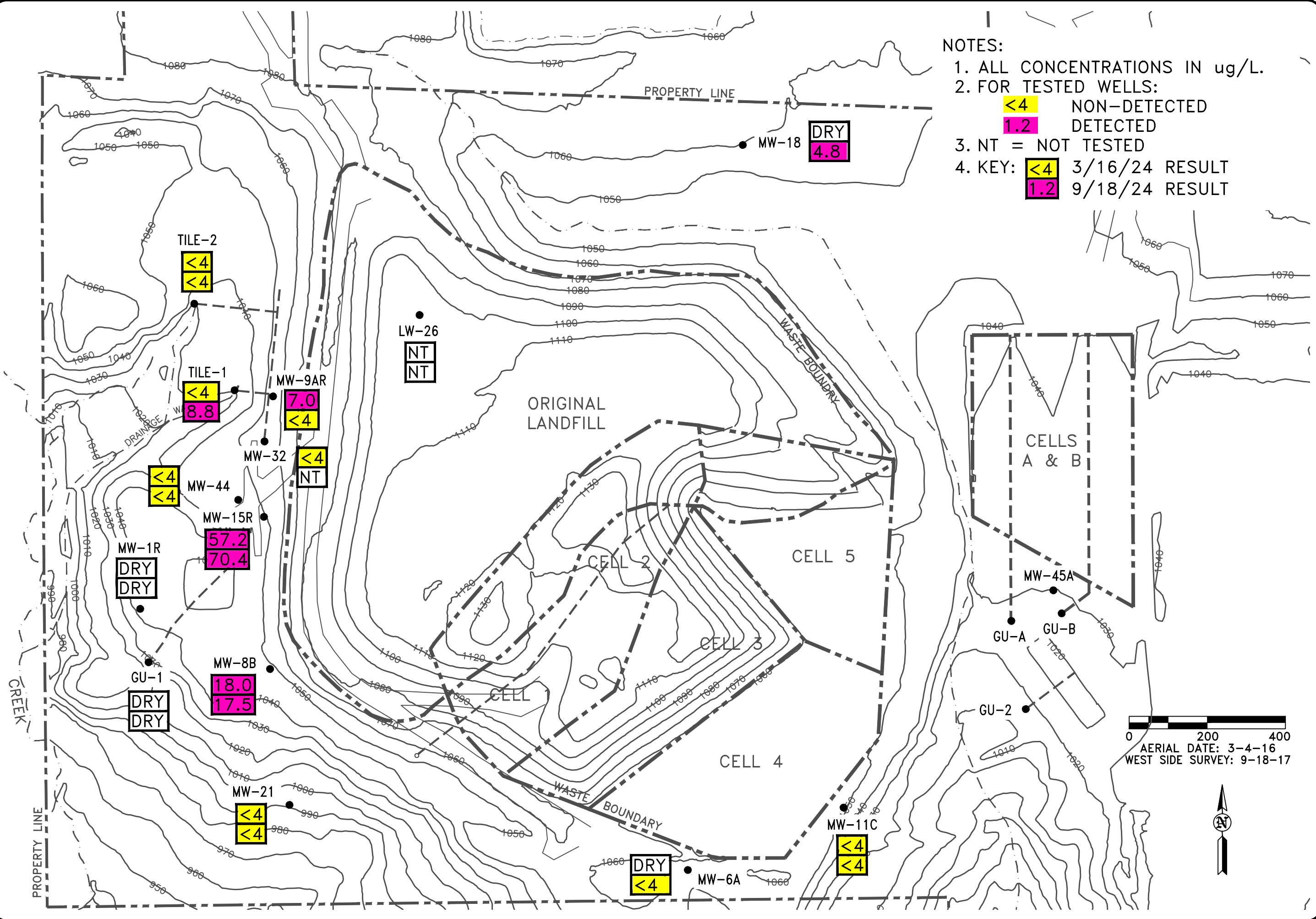
REVISION	NO.	DATE
DRAWN	PROJECT NO.	DATE
DRA	6022	1-16-25

CONCENTRATION SUMMARY  
UNCONSOLIDATED SYSTEM #1  
COBALT

SOUTH CENTRAL IOWA SANITARY LANDFILL  
WINTERSET, IOWA

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 FAX: (515) 733-4146





- NOTES:
1. ALL CONCENTRATIONS IN ug/L.
  2. FOR TESTED WELLS:  
<4 NON-DETECTED  
1.2 DETECTED
  3. NT = NOT TESTED
  4. KEY:  
<4 3/16/24 RESULT  
1.2 9/18/24 RESULT

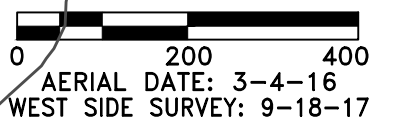
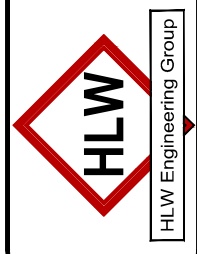


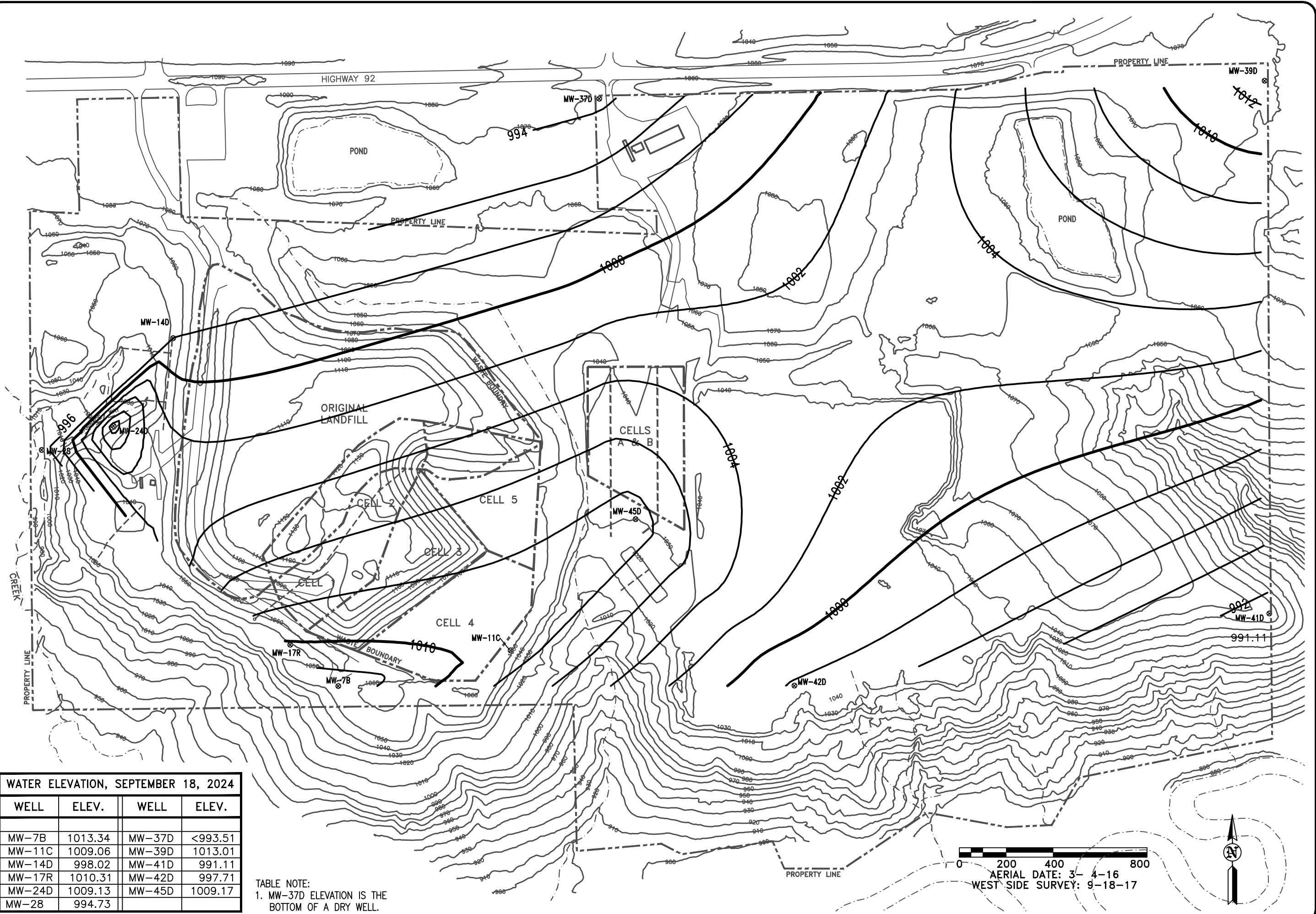
FIGURE: 10

REVISION	NO.	DATE
DRAWN	PROJECT NO. 6022	DATE 1-16-25
DRA		

CONCENTRATION SUMMARY  
UNCONSOLIDATED SYSTEM #1  
ARSENIC  
SOUTH CENTRAL IOWA SANITARY LANDFILL  
WINTERSET, IOWA

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





WATER ELEVATION, SEPTEMBER 18, 2024

WELL	ELEV.	WELL	ELEV.
MW-7B	1013.34	MW-37D	<993.51
MW-11C	1009.06	MW-39D	1013.01
MW-14D	998.02	MW-41D	991.11
MW-17R	1010.31	MW-42D	997.71
MW-24D	1009.13	MW-45D	1009.17
MW-28	994.73		

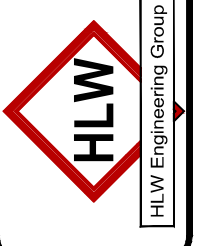
TABLE NOTE:  
1. MW-37D ELEVATION IS THE  
BOTTOM OF A DRY WELL.

FIGURE: 11

REVISION	NO.	DATE
DRAWN	6022	1-16-25

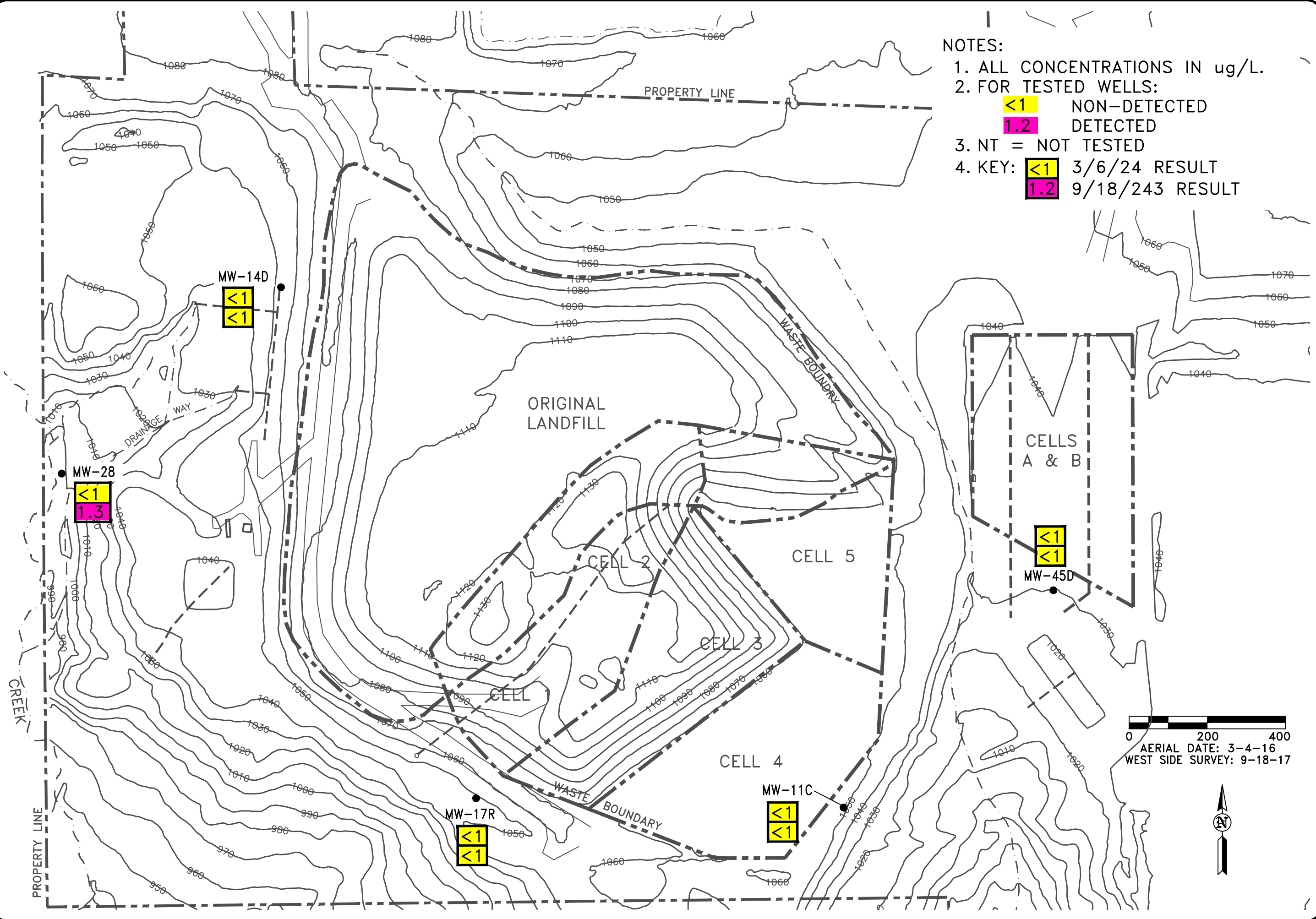
GROUNDWATER CONTOURS  
GROUNDWATER SYSTEM #4  
EXLINE LIMESTONE  
SOUTH CENTRAL IOWA SANITARY LANDFILL  
WINTERSET, IOWA

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



0 200 400 800  
AERIAL DATE: 3- 4-16  
WEST SIDE SURVEY: 9-18-17





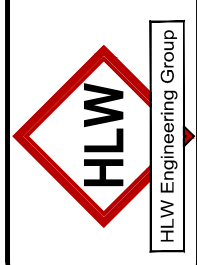
- NOTES:
1. ALL CONCENTRATIONS IN ug/L.
  2. FOR TESTED WELLS:  
<1 NON-DETECTED  
1.2 DETECTED
  3. NT = NOT TESTED
  4. KEY: <1 3/6/24 RESULT  
1.2 9/18/243 RESULT

FIGURE: 12

REVISION	NO.	DATE
DRAWN	6022	1-16-25

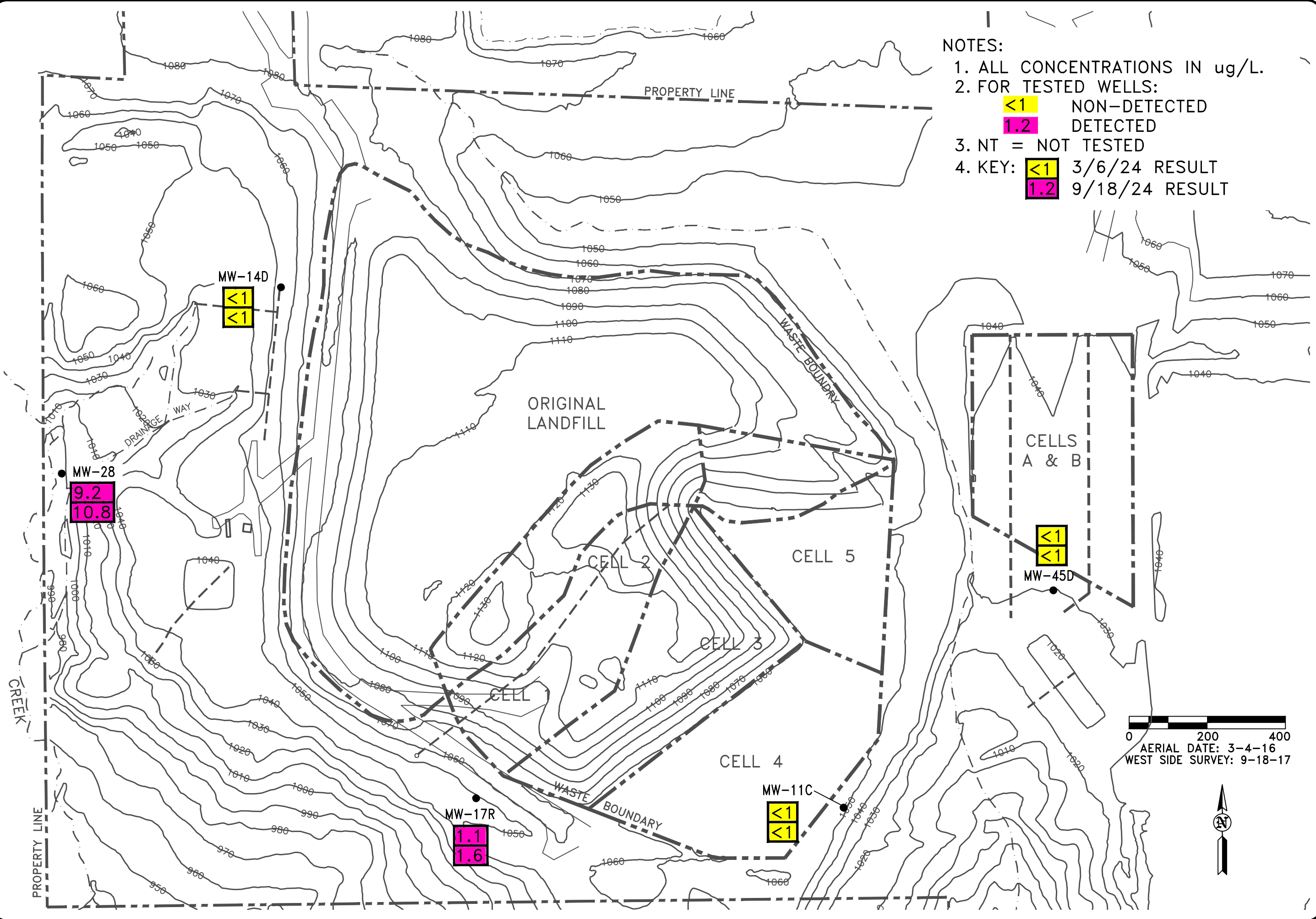
VINYL CHLORIDE IMPACT  
GROUNDWATER SYSTEM #4  
EXLINE LIMESTONE  
SOUTH CENTRAL IOWA SANITARY LANDFILL  
WINTERSET, IOWA

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Story City, Iowa 50248  
Phone: (515) 733-4144  
FAX: (515) 733-4146



0 200 400  
AERIAL DATE: 3-4-16  
WEST SIDE SURVEY: 9-18-17



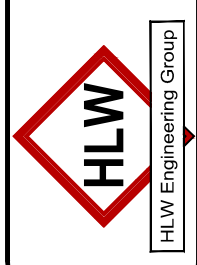


- NOTES:
1. ALL CONCENTRATIONS IN ug/L.
  2. FOR TESTED WELLS:  
<1 NON-DETECTED  
1.2 DETECTED
  3. NT = NOT TESTED
  4. KEY: <1 3/6/24 RESULT  
1.2 9/18/24 RESULT

REVISION		NO.	DATE
DRAWN		PROJECT NO.	DATE
DRA		6022	1-16-25

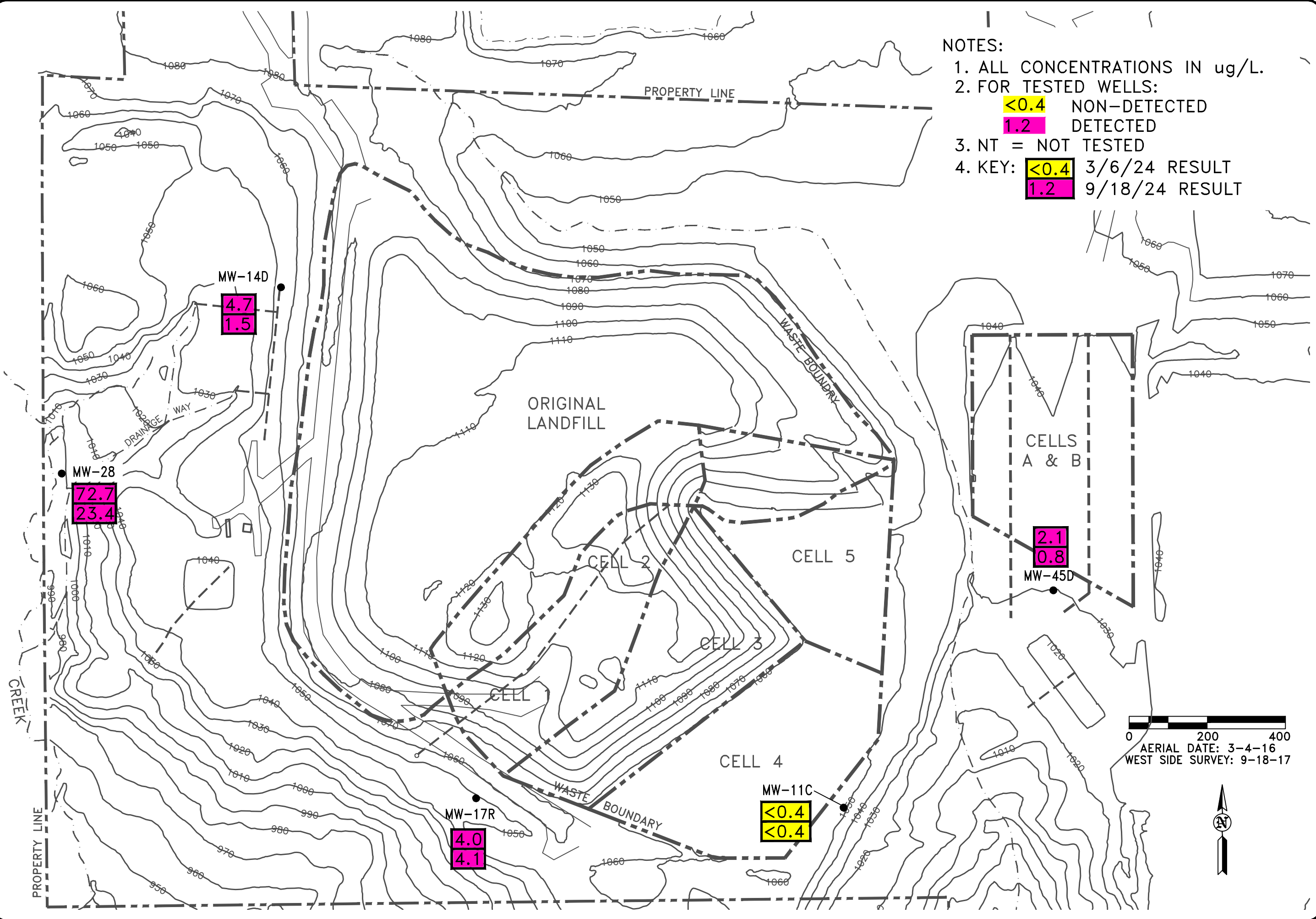
**FIGURE: 13**  
**CIS-1,2 DICHLOROETHANE**  
**GROUNDWATER SYSTEM #4**  
**EXLINE LIMESTONE**  
**SOUTH CENTRAL IOWA SANITARY LANDFILL**  
**WINTERSET, IOWA**

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



0 200 400  
 AERIAL DATE: 3-4-16  
 WEST SIDE SURVEY: 9-18-17





- NOTES:
1. ALL CONCENTRATIONS IN ug/L.
  2. FOR TESTED WELLS:  
<0.4 NON-DETECTED  
1.2 DETECTED
  3. NT = NOT TESTED
  4. KEY: <0.4 3/6/24 RESULT  
1.2 9/18/24 RESULT

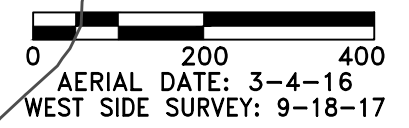
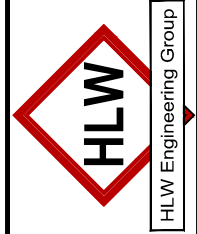


FIGURE: 14

REVISION	NO.	DATE
DRAWN	6022	1-16-25
DRA		

**COBALT IMPACT  
GROUNDWATER SYSTEM #4  
EXLINE LIMESTONE  
SOUTH CENTRAL IOWA SANITARY LANDFILL  
WINTERSET, IOWA**

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# Tables

## (in IDNR Format)

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## Table 1 – Monitoring Program Summary

**Table 1**  
**Monitoring Program Summary**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

Monitoring Well	Formation	Current Monitoring Program	Change for next sampling event	Historically detected Constituents w/ SSI	Current Year Constituents w/ SSI	Current Year Constituents w/ SSL	Total # of Samples in each monitoring program since September 23, 2014		
							Detection	Assessment	Corrective Action
<b>Glacial Till/Mining Spoils</b>									
Future MW-4 Replacement	Glacial Till, Fm. #1	Background	NC	None	None	None	0	0	0
MW-18	Glacial Till/Mining Spoils, Fm. #1	Background	NC	None	None	None	23	0	0
MW-38A	Glacial Till/Mining Spoils, Fm. #1	Background	NC	2025 Evaluation	2025 Evaluation	2025 Evaluation	0	0	0
GU-1	Glacial Till/Mining Spoils, Fm. #1	Detection - West Lagoon	NC	None	None	None	0	0	0
<b>GU-2</b>	Glacial Till/Mining Spoils, Fm. #1	Detection - East Lagoon	NC	2026 Evaluation - intrawell	2026 Evaluation - intrawell	2026 Evaluation - intrawell	6	0	0
<b>GU-A</b>	Glacial Till/Mining Spoils, Fm. #1	Detection - Detection Cell A	NC	2026 Evaluation - intrawell	2026 Evaluation - intrawell	2026 Evaluation - intrawell	5	0	0
<b>GU-B</b>	Glacial Till/Mining Spoils, Fm. #1	Detection - Detection Cell B	NC	2026 Evaluation - intrawell	2026 Evaluation - intrawell	2026 Evaluation - intrawell	6	0	0
MW-1R	Glacial Till/Mining Spoils, Fm. #1	Detection - POC	NC	None	None	None	0	0	0
MW-6A	Bethany Falls - Fm. #1	Assessment - POC	NC	<b>Antimony, Cobalt, Nickel, Selenium</b>	None	None	0	18	0
MW-8B (Supplemental)	Glacial Till/Mining Spoils, Fm. #1	Corrective Action - Supplemental	NC	N/A	N/A	N/A	0	0	20
MW-21 (AZPOC)	Glacial Till/Mining Spoils, Fm. #1	Detection - AZPOC	NC	None	None	None	22	0	0
MW-9AR (Supplemental)	Glacial Till/Mining Spoils, Fm. #1	Corrective Action - Supplemental	NC	N/A	N/A	N/A	0	0	15
Tile 1 (AZPOC)	Glacial Till/Mining Spoils, Fm. #1	Corrective Action - AZPOC	NC	<b>Barium, Cobalt, Nickel, 1,4-dichlorobenzene, benzene, chlorobenzene, cis-1,2-DCE, vinyl chloride</b>	<b>Barium, Nickel, 1,4-dichlorobenzene, benzene, chlorobenzene</b>	None	0	0	18
Tile 2 (AZPOC)	Glacial Till/Mining Spoils, Fm. #1	Corrective Action - AZPOC	NC	<b>Barium, Cobalt, 1,4-dichlorobenzene, chlorobenzene, cis-1,2-DCE, vinyl chloride</b>	<b>barium, chlorobenzene, cis-1,2-DCE, vinyl chloride</b>	vinyl chloride treated in PECS	0	0	13
MW-15R (Supplemental)	Glacial Till/Mining Spoils, Fm. #1	Corrective Action - Supplemental	NC	N/A	N/A	N/A	0	0	11
MW-44 (AZPOC)	Glacial Till/Mining Spoils, Fm. #1	Assessment - AZPOC	NC	<b>Barium, bis(2-ethylhexyl)phthalate</b>	<b>Barium, bis(2-ethylhexyl)phthalate</b>	None	4	0	0
<b>MW-45A</b>	Glacial Till/Mining Spoils, Fm. #1	Detection - POC	NC	2027 Evaluation - intrawell	2027 Evaluation - intrawell	2027 Evaluation - intrawell	3	0	0
<b>Exline</b>									
MW-11C	Exline, Fm. #4	Background	NC	None	None	None	17	0	0
MW-39D	Exline, Fm. #4	Background	NC	None	None	None	10	0	0
MW-41D	Exline, Fm. #4	Background	NC	None	None	None	10	0	0
MW-42D	Exline, Fm. #4	Background	NC	None	None	None	10	0	0
<b>MW-45D</b>	Exline, Fm. #4	Detection - POC	NC	2027 Evaluation - intrawell	2027 Evaluation - intrawell	2027 Evaluation - intrawell	3	0	0
MW-14D	Exline, Fm. #4	Assessment - POC	NC	<b>Antimony, Cobalt, Selenium, cis-1,2-DCE</b>	None	None	0	3	14
MW-17R	Exline, Fm. #4	Assessment - POC	NC	<b>Barium, Cobalt, Nickel, cis-1,2-DCE, trans-1,2-DCE</b>	<b>Barium, Nickel, cis-1,2-DCE</b>	None	0	19	0
MW-28	Exline, Fm. #4	Assessment - AZPOC*	NC	<b>Arsenic, Barium, Cobalt, Nickel, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, vinyl chloride</b>	<b>Arsenic, Barium, Cobalt, Nickel, cis-1,2-dichloroethylene, vinyl chloride</b>	<b>Cobalt*</b>	0	11	0
<b>Surface Water</b>									
SW-1	Surface Water, Fm. #5	Background	NC	None	None	None	16	0	0
SW-2B	Surface Water, Fm. #5	Detection	NC	None	None	None	18	0	0
<b>Corrective Action</b>									
MW-31	Glacial Till/Mining Spoils, Fm. #1	CAMP	NC	N/A	N/A	N/A	0	0	14
MW-32	Glacial Till/Mining Spoils, Fm. #1	CAMP	NC	N/A	N/A	N/A	0	0	14
LW-26	Landfill Leachate	CAMP	NC	N/A	N/A	N/A	0	0	13
Vents 1-6	LEL%	CAMP	NC	N/A	N/A	N/A	0	0	23
<b>Passively Engineered Conveyance Structure</b>									
SW-102	PECS	Performance	NC	N/A	N/A	N/A	0	0	18

\* Alternate Source is determined for for metals SSI & SSL

Red Text = new monitoring point associated with the Phase 1, Cell A and Cell B Expansion Area

Corrective Action System

Table 2 – Monitoring Program Implementation Schedule

**Table 2**  
**Monitoring Program Implementation Schedule**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

Monitoring Well	Recent Sampling Dates & Constituents	Upcoming Sampling Dates and Constituents				Full Appendix II Sample Dates	
		March, 2025	June, 2025	September, 2025	December, 2025	Previously Collected	Next Event
Glacial Till/Mining Spoils							
MW-4 or Replacement		Appendix I		Appendix I			
MW-18		Appendix I		Appendix I			
MW-38A		Appendix I		Appendix I			
GU-1	<b>See following pages</b>	Appendix I		Appendix I			
<b>GU-2</b>		Appendix I		Appendix I			
<b>GU-A</b>		Appendix I		Appendix I			
<b>GU-B</b>		Appendix I		Appendix I			
MW-1R		Appendix I		Appendix I			
MW-6A		<b>Appendix II</b>		Appendix I		3/26/2019, 3/24/2020	2025
MW-8B (Supplemental)		Appendix I + Note 3		Appendix I		1/27/2010, 3/19/2010, 3/4/2016	N/A
MW-21 (AZPOC)		Appendix I		Appendix I			
MW-9AR (Supplemental)		Appendix I + Note 3		Appendix I		6/8/2009, 10/23/2009, 9/14/2010, 3/4/2016	N/A
Tile 1 (AZPOC)		Appendix I		Appendix I		3/8/2021, 3/28/2022	N/A
Tile 2 (AZPOC)		Appendix I		Appendix I		3/8/2021, 3/28/2022	N/A
MW-15R (Supplemental)		Appendix I + Note 3		Appendix I		3/9/2017, 3/13/2018	N/A
MW-44 (AZPOC)		<b>Appendix II</b>		Appendix I + Note 1		3/6/2024	2025
<b>MW-45A</b>		Appendix I		Appendix I			
Exline							
MW-11C		Appendix I		Appendix I			
MW-39D		Appendix I Metals		Appendix I Metals			
MW-41D		Appendix I Metals		Appendix I Metals			
MW-42D		Appendix I Metals		Appendix I Metals			
<b>MW-45D</b>		Appendix I		Appendix I			
MW-14D		Appendix I		Appendix I		9/14/2017, 3/13/2018, 3/6/2024	2029
MW-17R		Appendix I		Appendix I		3/4/2016, 3/9/2017, 3/28/2022	2027
MW-28		Appendix I		Appendix I		3/8/2021, 3/28/2022	2027
Surface Water							
SW-1		Appendix I - VOC		Appendix I - VOC			
SW-2B		Appendix I - VOC		Appendix I - VOC			
Corrective Action							
MW-31 (spoils)		Appendix I - VOC		None		N/A	N/A
MW-32 (spoils)		Appendix I - VOC + arsenic		None		N/A	N/A
LW-26		Appendix I - VOC + Note 2 + Note 3		None		N/A	N/A
Vents 1-6		%LEL	%LEL	%LEL	%LEL	N/A	N/A
Passive Engineered Conveyance Structure (PECS)							
SW-102		Appendix I - VOC		Appendix I - VOC		N/A	N/A
QA/QC							
Blind Duplicate		Appendix I		Appendix I		N/A	N/A

Note 1 = bis(2-ethylhexyl)phthalate  
Note 2 = Arsenic (total), Cobalt (total), ammonia (N), sulfate, chloride, TDS, BOD5  
Note 3 = dissolved methane, ethane, ethene and alkalinity and pH

Key  
**Red Text** = Monitoring Point related to Phase 1, Cell A and Cell B

Table 2A – Summary of Monitoring to Date

**Table 2A -- Itemized Summary of Hydrologic Monitoring (to date)**

WELL	3/24/08	5/30/08	7/17/08	9/11/08	12/20/08
MW-4A(b)	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-18 (b)					
MW-19					
MW-14					
MW-9A	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-15					
MW-8B		Appendix I	Appendix I	Appendix I	Appendix I
MW-16					
MW-17					
SW-1				Appendix I	Appendix I
SW-2A-1	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
SW-2A-2			Appendix I	Appendix I	Appendix I
SW-2B			Appendix I	Appendix I	Appendix I
Duplicate	N/A	N/A	N/A	At MW-9A	At MW-9A

WELL	4/22/09	6/8/09	8/13/09	10/30/09	1/27/10	3/19/10
MW-4A(b)	Appendix I	Appendix I		Appendix I		Appendix I
MW-18 (b)				Appendix I	Appendix I	Appendix I
MW-19				Appendix I	Appendix I	Appendix I
MW-14				Appendix I	<b>Appendix II</b>	<b>Appendix II</b>
MW-9A	Appendix I	<b>Appendix II</b>		<b>Appendix II</b>		Appendix I
MW-15			Appendix I	Appendix I	<b>Appendix II</b>	<b>Appendix II</b>
MW-8B	Appendix I			Appendix I	<b>Appendix II</b>	<b>Appendix II</b>
MW-16				Dry		Dry
MW-17		Appendix I	Appendix I	Appendix I		Appendix I
SW-1	Appendix I	Appendix I	Appendix I	Appendix I		Appendix I
SW-2A-1	Appendix I	<b>Appendix II</b>		<b>Appendix II</b>		Appendix I
SW-2A-2	Appendix I			Appendix I		Appendix I
SW-2B	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
Duplicate	At SW-2A-2	At MW-17	N/A	At MW-4A	N/A	At SW-2A-2

WELL	6/17/10	9/14/10	3/4/11	4/29/11	9/26/11
MW-4A(b)		Appendix I	Appendix I		Appendix I
MW-18 (b)	Appendix I	Appendix I	Appendix I		Appendix I
MW-19	Appendix I	<b>Appendix II</b>	<b>Appendix II</b>	cobalt	Appendix I
MW-14	Appendix I	Appendix I	Appendix I	cobalt	Appendix I
MW-9A		<b>Appendix II</b>	<b>Appendix I+</b>		<b>Appendix I+</b>
MW-15	Appendix I	Appendix I	Appendix I		Appendix I
MW-8B		Appendix I	Dry		Dry
MW-16		Dry	Dry		Dry
MW-17	<b>Appendix II</b>	<b>Appendix II</b>	Appendix I		Appendix I
SW-1		Appendix I	Appendix I		Appendix I
SW-2A-1		<b>Appendix II</b>	Appendix I		Appendix I
SW-2A-2		Appendix I	<b>Appendix II</b>		<b>Appendix II</b>
SW-2B		Appendix I	Appendix I		Appendix I
Duplicate	At MW-15	At MW-1	At SW-2A-2		At MW-14

WELL	3/13/12	6/27/12	9/19/12	3/25/13	5/8/13
MW-4A(b)	Appendix I		Appendix I	Appendix I	
MW-18 (b)	Appendix I		Appendix I	Appendix I	
MW-19	Appendix I		Appendix I	Appendix I	
MW-14	Appendix I		Appendix I	Appendix I	
MW-9A	Appendix I+		Appendix I+	Appendix I+	
MW-15	Appendix I		Appendix I	Appendix I	
MW-8B	Dry		Dry	Dry	
MW-16	Dry		Removed	Removed	
MW-17	Appendix I		Appendix I	Appendix I	
MW-20	Appendix I-		Appendix I-	Appendix I-	Appendix I-
MW-21	N/A		Appendix I++	Appendix I	
SW-1	Appendix I		Appendix I	Appendix I	
SW-2A-2	Appendix I	Selenium	Appendix I	Appendix I	
SW-2A-1	Appendix I	Selenium	Appendix I	Appendix I	
SW-2B	Appendix I		Appendix I	Appendix I	
Duplicate	At MW-14		At MW-4A	At MW-17	

WELL	7/17/13	9/19/13	3/28/14	7/8/14	9/23/14	12/2/14
MW-4A(b)		Appendix I	Appendix I		Appendix I	Appendix I
MW-18 (b)		Appendix I	Appendix I		Appendix I	Appendix I
MW-19		Appendix I	Appendix I		Appendix I	
MW-14		Appendix I	Appendix I		<b>plugged</b>	
MW-9A	VOC	Appendix I+	Appendix I+		Appendix I+	
MW-15		Appendix I	Appendix I		Appendix I	
MW-8B		Appendix I	Appendix I		Appendix I	
MW-17		Appendix I	Appendix I		Appendix I	
MW-20	VOC	Appendix I-	Appendix I-		Appendix I-	
MW-21		Appendix I	Appendix I		Appendix I	
MW-1/1R			Broken		Dry	
GU-1			Dry	Dry	Dry	
SW-1		Dry	Appendix I		Appendix I	
SW-101		Dry	Appendix I	Appendix I	Appendix I	
SW-102		Appendix I	Appendix I		Appendix I	
SW-2B		Dry	Appendix I		Appendix I	
Duplicate		At MW-22	At MW-17		At SW-1	
MW-4B						Appendix I
MW-4C						Appendix I
MW-33						Appendix I
MW-28						VOC
MW-24D						VOC
MW-14D						VOC
SW-103						VOC
Duplicate		At MW-22	At MW-17		At SW-1	

(+) = Appendix I plus bis(2-ethylhexyl)phthalate  
 (++)=Appendix I plus Appendix I metals, dissolved phase  
 (VOC) = Appendix I VOC compounds only



WELL	3/19/15	6/17/15	8/27/15	10/26/15	12/10/15
MW-4A(b)	Appendix I	Appendix I	Appendix I		
MW-18 (b)	Appendix I	Appendix I	Appendix I		
MW-6A	Appendix I		Appendix I		
MW-7B	Appendix I		Appendix I		
MW-8B	Appendix I		Appendix I		
MW-9A	Appendix I+		Appendix I+		
MW-15	Appendix I		Appendix I	Resample-zn	
MW-21	Appendix I		Appendix I		
MW-17R	VOC		VOC		
GU-1	Dry		Dry		
MW-4C (b)	Appendix I	Appendix I	Appendix I		
MW-19 (b)	Appendix I	Appendix I	Appendix I		
MW-22B (b)	Appendix I	Appendix I	Appendix I		
MW-13	Appendix I		Appendix I		
MW-23B	Appendix I		Appendix I		
MW-11B	Dry		Dry		
SW-1 (b)	Appendix I		Appendix I		
SW-2B	Appendix I		Appendix I		
SW-101	Dry		Appendix I	Resample-cd & se	
SW-102	Appendix I		Appendix I		
SW-103	VOC		Appendix I		
MW-14B	NT		NT		
MW-14D	VOC		VOC		
MW-24A	NT		VOC		
MW-24D	VOC		VOC		
TMW-25	NT		NT		
TMW-26	NT		NT		
MW-28	VOC		VOC	VOC	VOC
MW-29	NT		NT		
MW-31	Appendix I		NT		
MW-32	Appendix I		NT		
SW-106	VOC		VOC		
Duplicate	At MW-4A		At MW-13		

(+) = Appendix I plus bis(2-ethylhexyl)phthalate

(VOC) = Appendix I VOC compounds only

WELL	2/11/16	3/4/16	5/10/16	9/20/16	11/9/16
MW-4A(b)		Appendix I		Appendix I	
MW-18 (b)		Appendix I		Appendix I	
MW-6A		Appendix I		Appendix I	
MW-7B		Appendix I		Appendix I	
MW-8B		<b>Appendix II</b>		Appendix I	
MW-9A		<b>Appendix II</b>		Appendix I+	
MW-15		Appendix I	Ba-resample	Appendix I	Zn-resample
MW-21		Appendix I		Appendix I	
MW-17R		<b>Appendix II</b>		Appendix I	
GU-1		Dry		Dry	
MW-1R		Dry		Dry	
MW-4C (b)		Appendix I			
MW-19 (b)		Appendix I			
MW-22B (b)		Appendix I			
MW-13		Appendix I		Appendix I	
MW-23B		<b>Appendix II</b>		Appendix I	
MW-11B		Dry			
SW-1 (b)		Appendix I		Appendix I	
SW-2B		Appendix I		Appendix I	
SW-101		<b>Appendix II</b>		Appendix I	
SW-102		Appendix I	Se – resample	VOC	
SW-103		<b>Appendix II</b>	VOC	VOC	
MW-14B		VOC			
MW-14D		VOC		Appendix I	
MW-24A		VOC			
MW-24D		VOC		VOC	
TMW-26		VOC		VOC	
MW-28	VOC	VOC	VOC	VOC	
SW-109	VOC		VOC	VOC	
Tile 1				VOC	VOC
MW-29		VOC		VOC	
MW-31		VOC		VOC	
MW-32		VOC		VOC	
SW-106		VOC	VOC	VOC	
Duplicate		At MW-28		At MW-9A	

(+) = Appendix I plus bis(2-ethylhexyl)phthalate

(VOC) = Appendix I VOC compounds only

WELL	3/9/17	6/6/17	7/12/17	9/14/17	12/13/17
SW-1	Appendix I			Dry	
SW-2B	Appendix I			Dry	
MW-4A	Appendix I			Appendix I	
MW-18	Appendix I		Arsenic	Appendix I	Arsenic
GU-1	Dry			Dry	
MW-9A/9AR	Appendix I+			<b>Destroyed</b>	Appendix I
MW-15	<b>Appendix II</b>	Resample		Appendix I	Resample
MW-8B	Appendix I			Appendix I	
MW-21	Appendix I			Appendix I	
MW-6A	Appendix I			Appendix I	Resample
MW-1R	Dry				
MW-11C	Appendix I			Appendix I	
MW-7B	Appendix I			Appendix I	
MW-14D	Appendix I			<b>Appendix II</b>	
MW-17R	<b>Appendix II</b>			Appendix I	Resample
MW-13	Appendix I			Appendix I	
MW-23B	Appendix I			Appendix I	
MW-24D	VOC			VOC	
MW-28	VOC			VOC	
SW/Pond-109	VOC			VOC	
Tile 1	VOC			VOC	
MW-31	VOC			VOC	
MW-32	VOC			VOC	
SW-101	<b>Appendix II</b>			VOC	
SW-102	VOC			VOC	
SW-103	VOC			VOC	
Duplicate	At MW-11C			At MW-21	

(+) = Appendix I plus bis(2-ethylhexyl)phthalate

(VOC) = Appendix I VOC compounds only

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WELL	3/13/18	6/6/18	6/11/18	9/10/18	11/14/18
SW-1	Appendix I			Appendix I	
SW-2B	Appendix I			Appendix I	
MW-4A	Appendix I			Appendix I	
MW-18	Appendix I			Appendix I	
GU-1	Dry			Dry	
MW-9A/9AR	Appendix I	Appendix I		Appendix I	
MW-15	<b>Appendix II</b>			<b>Destroyed</b>	
MW-8B	Appendix I			Appendix I	
MW-21	Appendix I			Appendix I	
MW-6A	Appendix I			Appendix I	R – Ni
MW-1R	Dry			Dry	
MW-11C	Appendix I			Appendix I	
MW-7B	Appendix I			Appendix I	
MW-14D	<b>Appendix II</b>		R – Sb, Se	Appendix I	
MW-17R	Appendix I			Appendix I	
MW-13	Appendix I			Appendix I	
MW-23B	Appendix I			Appendix I	
MW-24D	VOC			VOC	
MW-28	VOC			VOC	
SW/Pond-109	VOC			VOC	
Tile 1	VOC			VOC	
Tile 2	DNE			VOC	
MW-31	VOC			VOC	
MW-32	VOC			VOC	
SW-101	VOC			VOC	
SW-102	VOC			VOC	
SW-103	VOC			Now Tile 2	
Duplicate	At MW-6A			At MW-21	

DNE = Did Not Exist

(R) = Resample

(VOC) = Appendix I VOC compounds only

WELL	3/26/19	6/5/19	9/16/19	11/20/2019	12/2/2019
SW-1	Appendix I		Appendix I	(R) cis-1,2-DCE	
SW-2B	Appendix I	(R) Se	Appendix I		
MW-4A	Appendix I		Appendix I		
MW-18	Appendix I		Appendix I		
MW-8B	Appendix I		Appendix I		
MW-9AR	Appendix I		Appendix I		
MW-15R	---	Appendix I	Appendix I		(R) Ba
MW-21	Appendix I		Appendix I		
MW-6A	<b>Appendix II</b>	(R) Bis(2EH)P	Appendix I		
GU-1	Dry		Dry		
MW-11C	Appendix I		Appendix I		
MW-14D	Appendix I		Appendix I		
MW-17R	Appendix I		Appendix I		
MW-28	VOC		VOC+Se		
MW-31	VOC		VOC+Co		
MW-32	VOC		VOC+Co		
Tile 1	VOC	Appendix I	Appendix I		
Tile 2	VOC	Appendix I	Appendix I		
SW-102	VOC		VOC		
Duplicate	At MW-6A		A MW-8B		

(R) = Resample

(VOC) = Appendix I VOC compounds only

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WELL	3/24/20	4/14/20	6/3/20	7/20/20	9/2/20	12/28/20
Glacial Till/Mining Spoil POC						
MW-4A	Appendix I	---	---	---	Appendix I	---
MW-18	Appendix I	---	---	---	Appendix I	---
GU-1	Dry	---	---	---	Dry	---
MW-1R	Dry	---	---	---	Dry	---
MW-15R	Appendix I	---	---	---	Appendix I	---
MW-6A	<b>Appendix II</b>	---	---	---	Appendix I	---
MW-21	Appendix I	---	---	---	Appendix I	---
Tile 1	Appendix I	---	---	---	Appendix I	---
Tile 2	Appendix I	---	---	---	Appendix I	---
Exline Formation POC						
MW-11C	Appendix I	---	---	---	Appendix I	---
MW-39D	---	---	---	---	metals	---
MW-41D	---	---	---	---	metals	---
MW-42D	---	---	---	---	metals	---
MW-17R	Appendix I	---	---	---	Appendix I	---
MW-28	Appendix I	---	---	---	Appendix I	---
Supplemental Wells						
MW-8B	Appendix I + Note 3	---	---	---	Appendix I + Note 3	---
MW-9AR	Appendix I + Note 3	---	---	---	Appendix I + Note 3	---
MW-14D	Appendix I + Note 3	---	---	Se	Appendix I + Note 3	---
Surface Water						
SW-1	Appendix I	---	---	---	Appendix I	---
SW-2B	Appendix I	---	Se	---	Appendix I	---
Corrective Action						
MW-31	Dry	---	---	---	VOC	---
MW-32	VOC	---	---	---	VOC	---
LW-26	---	Note 2	---	---	VOC+Note2+Note3	---
Vents 1-6	---	---	---	---	%LEL	%LEL
Passive Engineered Conveyance Structure						
SW-102	VOC	---	---	---	VOC	---
QA/QC						
Duplicate	At MW-32	---	---	---	At MW-8B	---

Note 1 – bis(2-ethylhexyl)phthalate

Note 2 – cobalt (T), ammonia (N), sulfate, chloride, TDS, BOD5

Note 3 – dissolved methane, ethane, ethene and alkalinity and pH

(R) = Resample

(VOC) = Appendix I VOC compounds only

(metals) = Appendix I metal compounds only

(%LEL) = % Lower Explosive Limit

WELL	3/8/2021	6/4/2021	9/14/2021	12/1/2021
Glacial Till/Mining Spoil POC				
MW-4A	Appendix I	---	Appendix I	---
MW-18	Appendix I	---	Appendix I	---
GU-1	Dry	---	Dry	---
MW-1R	Dry	---	Dry	---
MW-15R	Appendix I	---	Appendix I	---
MW-6A	Appendix I + Note 1	---	Appendix I + Note 1	---
MW-21	Appendix I	---	Appendix I	---
Tile 1	<b>Appendix II</b>	---	Appendix I	---
Tile 2	<b>Appendix II</b>	---	Appendix I	---
Exline Formation POC				
MW-11C	Appendix I	---	Appendix I	---
MW-39D	metals	---	metals	---
MW-41D	metals	---	metals	---
MW-42D	metals	---	metals	---
MW-17R	Appendix I	---	Appendix I	---
MW-28	<b>Appendix II</b>	---	Appendix I	---
Supplemental Wells				
MW-8B	Appendix I + Note 3	---	Appendix I	---
MW-9AR	Appendix I + Note 3	---	Appendix I	---
MW-14D	Appendix I + Note 3	---	Appendix I	---
Surface Water				
SW-1	Appendix I	---	Appendix I	---
SW-2B	Appendix I	---	Appendix I	---
Corrective Action				
MW-31	VOC	---	---	---
MW-32	VOC	---	---	---
LW-26	VOC+Note2+Note3	---	---	---
Vents 1-6	%LEL	%LEL	%LEL	%LEL
Passive Engineered Conveyance Structure				
SW-102	VOC	---	VOC	---
QA/QC				
Duplicate	At MW-4A	---	At MW-15R	---

Note 1 – bis(2-ethylhexyl)phthalate

Note 2 – cobalt (T), ammonia (N), sulfate, chloride, TDS, BOD5

Note 3 – dissolved methane, ethane, ethene and alkalinity and pH

(R) = Resample

(VOC) = Appendix I VOC compounds only

(metals) = Appendix I metal compounds only

(%LEL) = % Lower Explosive Limit

WELL	3/28/2022	6/20/2022	9/13/2022	12/1/2022
Glacial Till/Mining Spoil POC				
MW-4A	Broken	---	Broken	---
MW-18	Appendix I	---	Appendix I	---
GU-1	Dry	---	Dry	---
MW-1R	Dry	---	Dry	---
MW-15R	Appendix I	---	Appendix I	R-As
MW-6A	Appendix I + Note 1	---	Appendix I	---
MW-21	Appendix I	---	Appendix I	---
Tile 1	<b>Appendix II</b>	---	Appendix I	---
Tile 2	<b>Appendix II</b>	---	Appendix I	---
Exline Formation POC				
MW-11C	Appendix I	---	Appendix I	---
MW-39D	metals	---	metals	---
MW-41D	metals	---	metals	---
MW-42D	metals	---	metals	---
MW-17R	<b>Appendix II</b>	---	Appendix I + Note 1	---
MW-28	<b>Appendix II</b>	---	Appendix I	---
Supplemental Wells				
MW-8B	Appendix I + Note 3	---	Appendix I	---
MW-9AR	Appendix I + Note 3	---	Appendix I	---
MW-14D	Appendix I + Note 3	---	Appendix I	---
Surface Water				
SW-1	Appendix I	---	Dry	---
SW-2B	Appendix I	---	VOC	---
Corrective Action				
MW-31	VOC	---	---	As
MW-32	VOC	---	---	---
LW-26	VOC+Note2+Note3	---	---	---
Vents 1-6	%LEL	%LEL	%LEL	%LEL
Passive Engineered Conveyance Structure				
SW-102	VOC	---	VOC	---
QA/QC				
Duplicate	At MW-41D	---	At MW-15R	---

Note 1 – bis(2-ethylhexyl)phthalate

Note 2 – cobalt (T), ammonia (N), sulfate, chloride, TDS, BOD5

Note 3 – dissolved methane, ethane, ethene and alkalinity and pH

(R) = Resample

(VOC) = Appendix I VOC compounds only

(metals) = Appendix I metal compounds only

(%LEL) = % Lower Explosive Limit



WELL	3/23/23	5/9/23	7/12/23	9/5/23	11/13/23	11/28/23	12/6/23
Glacial Till/Mining Spoil POC							
MW-4A	Broken	---	---	Broken	---	---	---
MW-18	Appendix I	---	---	Appendix I	---	---	---
MW-38	---	---	---	Dry	---	---	---
GU-1	Dry	---	---	Dry	---	---	---
MW-1R	Dry	---	---	Dry	---	---	---
MW-6A	Appendix I	---	---	Appendix I	---	---	---
MW-21	Appendix I	---	---	Appendix I	---	---	---
MW-44	DNE		Appendix I	Appendix I	---	R- Ba +toluene	---
Tile 1	Appendix I	---	---	Appendix I	---	---	---
Tile 2	Appendix I	---	---	Appendix I	---	---	---
GU-2	DNE	DNE	DNE	DNE	metals	---	metals
GU-A	DNE	DNE	DNE	DNE	Dry	---	metals
GU-B	DNE	DNE	DNE	DNE	metals	---	metals
MW-45A	DNE	DNE	DNE	DNE	DNE	DNE	DNE
Exline Formation POC							
MW-11C	Appendix I	---	---	Appendix I	---	---	---
MW-39D	metals	---	---	metals	---	---	---
MW-41D	metals	---	---	metals	---	---	---
MW-42D	metals	---	---	Appendix I	---	---	---
MW-14D	Appendix I + Note 3	---	---	Appendix I	---	R-Co	---
MW-17R	Appendix I	---	---	Appendix I	---	---	---
MW-45D	DNE	DNE	DNE	DNE	DNE	DNE	DNE
MW-28	Appendix I	---	---	Appendix I	---	---	---
Supplemental Wells							
MW-8B	Appendix I + Note 3	R-acetone	---	Appendix I + Note 4	---	---	---
MW-9AR	Appendix I + Note 3	---	---	Appendix I + Note 4	---	---	---
MW-15R	Appendix I + Note 3	---	---	Appendix I + Note 4	---	---	---
Surface Water							
SW-1	Appendix I	---	---	Dry	---	---	---
SW-2B	Appendix I	---	---	Dry	---	---	---
Corrective Action							
MW-31	VOC	---	---	---	---	---	---
MW-32	VOC	---	As	---	---	---	---
LW-26	VOC+Note2+Note3	---	---	---	---	---	---
Vents 1-6	%LEL	%LEL	---	%LEL	---	---	%LEL
Passive Engineered Conveyance Structure							
SW-102	VOC	---	---	Dry	---	---	---
QA/QC							
Duplicate	At MW-39D	---	---	At MW-44	---	---	---

Note 1 – bis(2-ethylhexyl)phthalate

Note 2 – arsenic (T), cobalt (T), ammonia (N), sulfate, chloride, TDS, BOD5

Note 3 – dissolved methane, ethane, ethene and alkalinity and pH

Note 4 - alkalinity and pH

(R) = Resample

(VOC) = Appendix I VOC compounds only

(metals) = Appendix I metal compounds only

(%LEL) = % Lower Explosive Limit

WELL	1/8/24	3/6/24	6/3/2024	9/18/2024	12/9/2024
Glacial Till/Mining Spoil POC					
MW-4A		Broken	---	Broken	Plugged 10-25-24
MW-18		Dry	---	Appendix I	---
MW-38		Dry	---	Dry	---
GU-1		Dry	---	Dry	---
MW-1R		Dry	---	Dry	---
MW-6A		Dry	---	Appendix I	---
MW-21		Appendix I	---	Appendix I	---
MW-44		<b>Appendix II</b>	---	Appendix I+Note1	---
Tile 1		Appendix I	---	Appendix I	---
Tile 2		Appendix I	---	Appendix I	---
GU-2	metals	Appendix I	Appendix I	Appendix I	---
GU-A	metals	Appendix I	Appendix I	Appendix I	---
GU-B	metals	Appendix I	Appendix I	Appendix I	---
MW-45A		Appendix I	Appendix I	Appendix I	---
Exline Formation POC					
MW-11C		Appendix I	---	Appendix I	---
MW-39D		metals	---	metals	---
MW-41D		metals	---	metals	---
MW-42D		metals	---	Appendix I	---
MW-14D		<b>Appendix II</b>	---	Appendix I+Note1	---
MW-17R		Appendix I	---	Appendix I	---
MW-45D		Appendix I	Appendix I	Appendix I	R-acetone+As
MW-28		Appendix I	---	Appendix I	---
Supplemental Wells					
MW-8B		Appendix I + Note 4	---	Appendix I + Note 3	---
MW-9AR		Appendix I + Note 4	---	Appendix I + Note 3	---
MW-15R		Appendix I + Note 4	---	Appendix I + Note 3	---
Surface Water					
SW-1		Dry	---	Dry	---
SW-2B		VOC	---	VOC	---
Corrective Action					
MW-31		Dry	---	VOC	---
MW-32		VOC + As	---	---	---
LW-26		VOC+Note2+Note3	---	---	---
Vents 1-6		%LEL	%LEL	%LEL	%LEL
Passive Engineered Conveyance Structure					
SW-102	---	VOC	---	VOC	---
QA/QC					
Duplicate	---	At MW-28	---	At MW-41D	---

Note 1 – bis(2-ethylhexyl)phthalate

Note 2 – arsenic (T), cobalt (T), ammonia (N), sulfate, chloride, TDS, BOD5

Note 3 – dissolved methane, ethane, ethene and alkalinity and pH

Note 4 - alkalinity and pH

(R) = Resample

(VOC) = Appendix I VOC compounds only

(metals) = Appendix I metal compounds only

(%LEL) = % Lower Explosive Limit

Table 3 – Monitoring Well Maintenance Performance Reevaluation Schedule

**Table 3**  
**Monitoring Well Maintenance and Performance Reevaluation Schedule**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

Compliance with:	Monitoring Calendar Years									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
567 IAC 113.10(2)"f"(1) high and low water levels (biennial)	X	X	X	X	X	X	X	X	X	X
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths (historic = 1 per 5 years; current = biennial)		X		X		X		X		X
567 IAC 113.10(2)"f"(3) well depths (annual)	X	X	X	X	X	X	X	X	X	X
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)	X	X	X		X	X		X		X
Waste separation from ground water 113.6(2)"l"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Compliance with:	Monitoring Calendar Years									
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
567 IAC 113.10(2)"f"(1) high and low water levels (biennial)	X	X	X	X	X	X	P	P	P	P
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths (historic = 1 per 5 years; current = biennial)		X		X		X		P		P
567 IAC 113.10(2)"f"(3) well depths (annual)	X	X	X	X	X	X	P	P	P	P
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)		X		X		X		P		P
Waste separation from ground water 113.6(2)"l"	N/A	N/A	N/A	N/A	N/A	X*	N/A	N/A	N/A	N/A

X = completed  
P = Planned

X\* - Phase A and Phase B have groundwater piezometers in-place for use in documenting separation in Phase A & B.

Table 4 – Monitoring Well Maintenance Performance Reevaluation Summary

**Table 4**  
**Monitoring Well Maintenance and Performance Summary**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

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		
				3/6/2024	9/18/2024			3/6/2024	Change	
MW-4A	1082.35	1057.65	29.7	Groundwater Level (ft)			29.7	0.000356 March, 2016	Broken	Broken
				Groundwater Elevation (Ft MSL)	1082.35	1082.35			Plugged 10-25-24	
				Measured Well Depth (ft)						
				Submerged (+) or Exposed screen (-)	24.7	24.7				
MW-18	1062.45	1048.62	23.83	Groundwater Level (ft)	22.16	22.21	0.23	0.00022 March, 2016	Full recovery in 3 hour	None perceived
				Groundwater Elevation (Ft MSL)	1040.29	1040.24				
				Measured Well Depth (ft)	23.6	23.6				
				Submerged (+) or Exposed screen (-)	-8.33	-8.38				
MW-9AR	1057.54	1038.59	28.95	Groundwater Level (ft)	25.7	25.64	0	0.0000417 March, 2016	Full recovery in 8 hour	None perceived
				Groundwater Elevation (Ft MSL)	1031.84	1031.9				
				Measured Well Depth (ft)	28.95	28.95				
				Submerged (+) or Exposed screen (-)	-6.75	-6.69				
MW-15R	1051.77	1035.67	21.6	Groundwater Level (ft)	14.83	13.91	0	0.000495 March, 2016	Full recovery in 2 hour	None perceived
				Groundwater Elevation (Ft MSL)	1036.94	1037.86				
				Measured Well Depth (ft)	21.6	21.6				
				Submerged (+) or Exposed screen (-)	1.27	2.19				
MW-8B	1049.46	1029.86	28.65	Groundwater Level (ft)	24.94	24.39	-0.05	0.0000207 March, 2016	Full recovery in 6 hour	None perceived
				Groundwater Elevation (Ft MSL)	1024.52	1025.07				
				Measured Well Depth (ft)	28.7	28.7				
				Submerged (+) or Exposed screen (-)	-5.34	-4.79				
MW-21	993.9	961.8	42.1	Groundwater Level (ft)	34.92	26.8	0.4	0.00573 March, 2016	Full recovery in 5 hour	None perceived
				Groundwater Elevation (Ft MSL)	958.98	967.1				
				Measured Well Depth (ft)	41.7	41.7				
				Submerged (+) or Exposed screen (-)	-2.82	5.3				
MW-6A	1055.48	1043.05	15.43	Groundwater Level (ft)	13.95	11.65	-0.32	0.0000196 March, 2016	Too Dry	None perceived
				Groundwater Elevation (Ft MSL)	1041.53	1043.83				
				Measured Well Depth (ft)	15.75	15.75				
				Submerged (+) or Exposed screen (-)	-1.52	0.78				
MW-38A	1075.92	1053.67	27.25	Groundwater Level (ft)	26.6	26.73	0	pending 2025 too dry	Too Dry	None perceived
				Groundwater Elevation (Ft MSL)	1049.32	1049.19				
				Measured Well Depth (ft)	27.25	27.25				
				Submerged (+) or Exposed screen (-)	-4.35	-4.48				
MW-44	1051.33	1037.71	18.62	Groundwater Level (ft)	11.8	9.78	0.02	high March, 2024	No Drawdown	None perceived
				Groundwater Elevation (Ft MSL)	1039.53	1041.55				
				Measured Well Depth (ft)	18.62	18.6				
				Submerged (+) or Exposed screen (-)	1.82	3.84				
MW-45A	1033.1	1022.5	13.6	Groundwater Level (ft)	10.45	11.3	0	0.00000791 April, 2024	Full recovery in 6 hour	None perceived
				Groundwater Elevation (Ft MSL)	1022.65	1021.8				
				Measured Well Depth (ft)	13.6	13.6				
				Submerged (+) or Exposed screen (-)	0.15	-0.7				
MW-45D	1033.44	997.49	38.45	Groundwater Level (ft)	25.94	24.27	0	0.0000159 April, 2024	Full recovery in 12 hour	None perceived
				Groundwater Elevation (Ft MSL)	1007.5	1009.17				
				Measured Well Depth (ft)	38.45	38.45				
				Submerged (+) or Exposed screen (-)	10.01	11.68				
MW-31	1054.34	1034.34	25	Groundwater Level (ft)	23.35	23.18	0	0.0000116 March, 2016	Too Dry	None perceived
				Groundwater Elevation (Ft MSL)	1030.99	1031.16				
				Measured Well Depth (ft)	25	25				
				Submerged (+) or Exposed screen (-)	-3.35	-3.18				
MW-32	1056.82	1034.02	27.8	Groundwater Level (ft)	21.98	21.29	0	0.00000057 March, 2016	Full recovery >24 hour	None perceived
				Groundwater Elevation (Ft MSL)	1034.84	1035.53				
				Measured Well Depth (ft)	27.8	27.8				
				Submerged (+) or Exposed screen (-)	0.82	1.51				
MW-28	1002.67	992.87	14.8	Groundwater Level (ft)	7.68	7.94	-0.2	0.000212 March, 2016	Full recovery in 1 hour	None perceived
				Groundwater Elevation (Ft MSL)	994.99	994.73				
				Measured Well Depth (ft)	15	15				
				Submerged (+) or Exposed screen (-)	2.12	1.86				
MW-11C	1054.11	1003.56	51.55	Groundwater Level (ft)	45.55	45.05	0	0.00647 March, 2016	Full recovery in 7 hour	None perceived
				Groundwater Elevation (Ft MSL)	1008.56	1009.06				
				Measured Well Depth (ft)	51.55	51.55				
				Submerged (+) or Exposed screen (-)	5	5.5				
MW-14D	1057.28	997.28	65	Groundwater Level (ft)	52.02	59.26	0	0.000000107 June, 2010	Full recovery >24 hour	None perceived
				Groundwater Elevation (Ft MSL)	1005.26	998.02				
				Measured Well Depth (ft)	65	65				
				Submerged (+) or Exposed screen (-)	7.98	0.74				
MW-17R	1058.27	1008.97	52.3	Groundwater Level (ft)	48.45	47.96	0	0.0001 March, 2016	Full recovery in 5 hour	None perceived
				Groundwater Elevation (Ft MSL)	1009.82	1010.31				
				Measured Well Depth (ft)	52.3	52.3				
				Submerged (+) or Exposed screen (-)	0.85	1.34				
MW-39D	1076.19	988.69	90.5	Groundwater Level (ft)	59.94	63.18	0.3	0.0000098 May, 2020	Full recovery >24 hour	None perceived
				Groundwater Elevation (Ft MSL)	1016.25	1013.01				
				Measured Well Depth (ft)	90.2	90.2				
				Submerged (+) or Exposed screen (-)	27.56	24.32				
MW-41D	1039.09	988.89	53.2	Groundwater Level (ft)	48.6	47.9	0.2	0.00000188 May, 2020	Full recovery >24 hour	None perceived
				Groundwater Elevation (Ft MSL)	990.49	991.19				
				Measured Well Depth (ft)	53	53				
				Submerged (+) or Exposed screen (-)	1.6	2.3				
MW-42D	1035.79	994.36	43.43	Groundwater Level (ft)	37.97	38.08	0.03	0.00000583 May, 2020	Full recovery >24 hour	None perceived
				Groundwater Elevation (Ft MSL)	997.82	997.71				
				Measured Well Depth (ft)	43.4	43.4				
				Submerged (+) or Exposed screen (-)	3.46	3.35				

**Groundwater Underdrain Piezometer**

Well	Date of Measurements		
	3/6/2024	9/18/2024	
GUH - A	Top PVC (MSL)	1042.52	1042.52
	Depth to liquid (ft)	12.45	12.45
	Depth to bottom (ft)	12.45	12.45
	bottom of waste (feet MSL)	1036.53	1036.53
	Bottom Screen of GPZ (feet MSL)	1030.07	1030.07
	Thickness Water in GPZ (ft)	0	0
	Elevation water in GPZ (feet MSL)	1030.07	1030.07
	Minimum Separation (ft)	6.46	6.46

Well	Date of Measurements		
	3/6/2024	9/18/2024	
GUH - B	Top PVC (MSL)	1040.9	1040.9
	Depth to liquid (ft)	11.9	11.9
	Depth to bottom (ft)	11.9	11.9
	bottom of waste (feet MSL)	1034.63	1034.63
	Bottom Screen of GPZ (feet MSL)	1029	1029
	Thickness Water in GPZ (ft)	0	0
	Elevation water in GPZ (feet MSL)	1029	1029
	Minimum Separation (ft)	5.63	5.63

Table 4A – Summary of Water Elevations Over Time

















Table 4A  
 Water Elevation Data  
 Annual Water Quality Report  
 South Central Iowa Landfill  
 61-SDP-1-76P

Well/TOC	MW-34A 1072.82 1072.74		MW-34B 1072.82		MW-34C 1072.75		MW-35B 1051.00		MW-36A 1063.83		MW-36B 1064.15		MW-37A 1072.27		MW-37B 1073.59	
	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation
09/02/20	18.98	1053.84	19.05	1053.77	30.30	1042.45	11.63	1039.37	21.05	1042.78	22.89	1041.26	20.91	1051.36	36.57	1037.02
03/08/21	19.25	1053.57	19.25	1053.57	29.57	1043.18	11.01	1039.99								
09/14/21	20.02	1052.80	19.75	1053.07	30.04	1042.71	11.60	1039.40	21.39	1042.44	22.90	1041.25	20.95	1051.32	30.86	1042.73
03/28/22	20.35	1052.47	20.41	1052.41	29.73	1043.02	10.90	1040.10	22.30	1041.53	23.05	1041.10	20.95	1051.32	29.78	1043.81
09/13/22	20.82	1052.00	20.67	1052.15	30.34	1042.41	12.25	DRY	21.76	1042.07	23.30	1040.85	21.10	DRY	29.18	1044.41
03/23/23	20.81	1051.93	21.17	1051.65	30.03	1042.72	11.60	1039.40	21.53	1042.30	22.25	1041.90	20.98	1051.29	29.03	1044.56
09/05/23	21.98	1050.76	21.65	1051.17	31.00	1041.75	12.25	DRY	21.74	1042.09	23.63	1040.52	21.10	DRY	28.90	1044.69
03/06/24	22.55	1050.19	22.52	1050.30	30.58	1042.17	11.97	1039.03	23.26	1040.57	24.75	1039.40	20.96	1051.31	28.95	1044.64
09/18/24	21.62	1051.12	21.86	1050.96	30.55	1042.20	12.10	DRY	21.54	1042.29	23.15	1041.00	20.95	1051.32	28.62	1044.97

Table 4A  
 Water Elevation Data  
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Well/TOC	MW-37C 1073.40		MW-37D 1073.31		MW-38A 1075.92		MW-38B 1076.18		MW-39A 1075.05		MW-39B 1075.29		MW-39C 1075.33		MW-39D 1076.19	
	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation
10/06/93																
09/02/20	41.96	1031.44	79.80	DRY	23.00	1052.92	46.15	1030.03	28.12	1046.93	46.82	1028.47	45.36	1029.97	85.00	991.19
03/08/21															82.83	993.36
09/14/21	41.05	1032.35	79.80	DRY	24.81	1051.11	42.06	1034.12	29.63	1045.42	43.04	1032.25	46.25	1029.08	80.90	995.29
03/28/22	39.74	1033.66	79.80	DRY	25.48	1050.44	41.42	1034.76	30.20	1044.85	43.35	1031.94	46.61	1028.72	73.80	1002.39
09/13/22	40.63	1032.77	79.80	DRY	25.88	1050.04	40.72	1035.46	30.05	1045.00	42.91	1032.38	46.23	1029.10	63.30	1012.89
03/23/23	39.69	1033.71	79.80	DRY	26.26	1049.66	40.60	1035.58	30.62	1044.43	42.89	1032.40	46.34	1028.99	61.34	1014.85
09/05/23	40.78	1032.62	79.80	DRY	26.51	1049.41	40.44	1035.74	30.59	1044.46	42.36	1032.93	45.88	1029.45	59.44	1016.75
03/06/24	39.69	1033.71	79.80	DRY	26.60	1049.32	40.85	1035.33	30.90	1044.15	43.26	1032.03	46.67	1028.66	59.94	1016.25
09/18/24	39.54	1033.86	79.80	DRY	26.73	1049.19	40.44	1035.74	30.90	1044.15	41.50	1033.79	46.27	1029.06	63.18	1013.01



Table 4A  
 Water Elevation Data  
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Well/TOC	MW-40A 1074.44		MW-40B 1074.48		MW-41A 1037.51		MW-41C 1038.66		MW-41D 1039.01		MW-42C 1036.56		MW-42D 1035.79		MW-43 989.02	
	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation
10/06/93																
09/02/20	30.17	1044.27	46.95	1027.53	21.20	DRY	27.57	1011.09	47.82	991.19	20.60	1015.96	36.32	999.47	21.50	DRY
03/08/21									47.85	991.16			33.91	1001.88	21.50	DRY
09/14/21	31.28	1043.16	44.40	1030.08	21.20	DRY	27.65	1011.01	47.84	991.17	19.97	1016.59	34.90	1000.89	21.50	DRY
03/28/22	31.31	1043.13	43.89	1030.59	21.20	DRY	27.65	1011.01	47.83	991.18	18.30	1016.26	35.81	999.98	21.50	DRY
09/13/22	31.30	1043.14	44.17	1030.31	21.20	DRY	27.75	DRY	47.80	991.21	20.25	1016.31	39.21	996.58	21.50	DRY
03/23/23	31.50	1042.94	43.60	1030.88	21.20	DRY	27.61	1011.05	47.48	991.53	18.52	1018.04	33.85	1001.94	21.50	DRY
09/05/23	31.40	1043.04	45.04	1029.44	21.20	DRY	27.60	1011.06	48.02	990.99	20.27	1016.29	38.80	996.99	21.50	DRY
03/06/24	31.55	DRY	45.65	1028.83	21.20	DRY	27.65	1011.01	48.60	990.41	19.73	1016.83	37.97	997.82	NR	NR
09/18/24	31.40	1043.04	44.15	1030.33	21.10	DRY	27.59	1011.07	47.90	991.11	19.77	1016.79	38.08	997.71	NR	NR

Table 4A  
 Water Elevation Data  
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Well/TOC	MW-44 1051.33		MW-45A 1033.10		MW-45D 1033.44			
	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation
10/06/93								
07/12/23	9.87	1041.46						
09/05/23	11.26	1040.07						
01/08/24	13.38	1037.95	10.54	1022.56	25.95	1007.49		
03/06/24	11.80	1039.53	10.45	1022.65	25.94	1007.50		
09/18/24	9.78	1041.55	11.30	1021.80	24.27	1009.17		

Table 5 – Background and GWPS Summary

**Table 5**  
**Background and GWPS Summary**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
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**Interwell Background Wells (Till/Fill System - MW-4A and MW-18)**

<b>Inorganics - Appendix I</b>										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
Antimony (Sb)	µg/l	nonparametric	39	5			5.5000	0.99	6	SS
Arsenic (As)	µg/l	normal	39	22	12.4846	14.436	47.9881		48.5787	PL
Barium (Ba)	µg/l	normal	39	39	398.4359	91.8347	624.2924		2000	SS
Beryllium (Be)	µg/l	nonparametric	39	0			4.0000	0.99	4	SS
Cadmium (Cd)	µg/l	nonparametric	37	4			1.8000	0.99	5	SS
Chromium (Cr)	µg/l	nonparametric	39	1			10.4000	0.99	100	SS
Cobalt (Co)	µg/l	lognormal	39	20	0.2382	0.4892	4.2267		7.2	PL
Copper (Cu)	µg/l	nonparametric	38	7			12.0000	0.99	1300	SS
Lead (Pb)	µg/l	nonparametric	39	0			4.0000	0.99	15	SS
Nickel (Ni)	µg/l	nonparametric	39	18			23.8000	0.99	100	SS
Selenium (Se)	µg/l	nonparametric	39	6			16.2000	0.99	50	SS
Silver (Ag)	µg/l	nonparametric	39	0			4.0000	0.99	100	SS
Thallium (Tl)	µg/l	nonparametric	39	0			2.0000	0.99	2	SS
Vanadium (V)	µg/l	nonparametric	39	1			30.7000	0.99	35	SS
Zinc (Zn)	µg/l	nonparametric	39	16			53.3000	0.99	2000	SS

<b>VOC - Appendix I</b>										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
All	µg/l	DQR	39	0	<1	<1	<1	<1	various	SS

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

**Interwell Background Wells (Bedrock System MW-11C and MW-39D, MW-41D, MW-42D)**

<b>Inorganics - Appendix I</b>										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
Antimony (Sb)	µg/l	nonparametric	45	9			10.9000	0.99	10.9	PL
Arsenic (As)	µg/l	nonparametric	45	8			5.8000	0.99	10	SS
Barium (Ba)	µg/l	normal	45	45	53.3822	21.6836	106.3060		2000	SS
Beryllium (Be)	µg/l	nonparametric	45	0			4.0000	0.99	4	SS
Cadmium (Cd)	µg/l	nonparametric	45	0			0.8000	0.99	5	SS
Chromium (Cr)	µg/l	nonparametric	45	1			13.2000	0.99	100	SS
Cobalt (Co)	µg/l	nonparametric	45	12			5.4000	0.99	5.4	PL
Copper (Cu)	µg/l	nonparametric	45	2			6.5000	0.99	1300	SS
Lead (Pb)	µg/l	nonparametric	45	0			4.0000	0.99	15	SS
Nickel (Ni)	µg/l	nonparametric	45	13			11.8000	0.99	100	SS
Selenium (Se)	µg/l	nonparametric	45	0			4.0000	0.99	50	SS
Silver (Ag)	µg/l	nonparametric	45	0			4.0000	0.99	100	SS
Thallium (Tl)	µg/l	nonparametric	45	0			2.0000	0.99	2	SS
Vanadium (V)	µg/l	nonparametric	45	1			20.0000	0.99	35	SS
Zinc (Zn)	µg/l	nonparametric	45	7			34.5000	0.99	2000	SS

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

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

**Interwell Background Points (Surface Water System SW-1)**

<b>VOC - Appendix I</b>										
Constituent	Units	Model Type	Samples - N	Detections	Mean	SD	Prediction Limit	Confidence	GWPS	Source
All	µg/l	DQR	28	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**  
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Well	Compound	Date	Result (ug/L)	Prediction Limit (ug/L)	Monitoring Program
MW-44	barium	3/6/2024	795.0	623.33	AZPOC
MW-44	bis(2-ethylhexyl)phthalate	3/6/2024	14.0	6.00	AZPOC
MW-44	barium	9/18/2024	662.0	624.29	AZPOC
MW-44	bis(2-ethylhexyl)phthalate	9/18/2024	10.0	6.00	AZPOC
Tile 1	Barium	3/6/2024	2250	623.33	AZPOC
Tile 1	Barium	9/18/2024	2340	624.29	AZPOC
Tile 1	Nickel	3/6/2024	43.5	23.8	AZPOC
Tile 1	Nickel	9/18/2024	43.5	33.6	AZPOC
Tile 1	1,4-dichlorobenzene	3/6/2024	1.8	1.0	AZPOC
Tile 1	1,4-dichlorobenzene	9/18/2024	3.3	1.0	AZPOC
Tile 1	benzene	9/18/2024	1.8	1.0	AZPOC
Tile 1	chlorobenzene	3/6/2024	1.8	1.0	AZPOC
Tile 1	chlorobenzene	9/18/2024	4.3	1.0	AZPOC
Tile2	Barium	9/18/2024	638.0	624.3	AZPOC
Tile2	chlorobenzene	9/18/2024	1.1	1.0	AZPOC
Tile2	cis-1,2-DCE	3/6/2024	6.9	1.0	AZPOC
Tile2	cis-1,2-DCE	9/18/2024	2.1	1.0	AZPOC
Tile2	Vinyl Chloride	3/6/2024	1.0	1.0	AZPOC
Tile2	Vinyl Chloride	9/18/2024	2.7	1.0	AZPOC
MW-14D	bis(2-ethylhexyl)phthalate	3/6/2024	10.0	6.0	Assessment Monitoring
MW-17R	barium	3/6/2024	432.0	124.06	Assessment Monitoring
MW-17R	barium	9/18/2024	435.0	106.31	Assessment Monitoring
MW-17R	nickel	3/6/2024	18.9	11.8	Assessment Monitoring
MW-17R	nickel	9/18/2024	24.2	11.8	Assessment Monitoring
MW-17R	Cis-1,2-DCE	3/6/2024	1.1	1.0	Assessment Monitoring
MW-17R	Cis-1,2-DCE	9/18/2024	1.6	1.0	Assessment Monitoring
MW-28*	arsenic	3/6/2024	59.7	5.8	Assessment Monitoring
MW-28*	barium	3/6/2024	1390	124.06	Assessment Monitoring
MW-28*	barium	9/18/2024	652.0	106.31	Assessment Monitoring
MW-28*	cobalt	3/6/2024	72.7	5.4	Assessment Monitoring
MW-28*	cobalt	9/18/2024	23.4	5.4	Assessment Monitoring
MW-28*	nickel	3/6/2024	26.9	11.8	Assessment Monitoring
MW-28*	nickel	9/18/2024	15.2	11.8	Assessment Monitoring
MW-28	cis-1,2-DCE	3/6/2024	9.2	1.0	Assessment Monitoring
MW-28	cis-1,2-DCE	9/18/2024	10.8	1.0	Assessment Monitoring
MW-28	Vinyl Chloride	9/18/2024	1.3	1.0	Assessment Monitoring

\* an Alternate Source Demonstration applies to MW-28 inorganic compounds.

**Note - MW-45A, GU-A, GU-B, and GU-2 are not included, as they are evaluated by Intrawell methods and sufficient background is not available to evaluate control limit exceedances.**

Table 7 – Summary of Ongoing and Newly Identified SSI

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI	Resamples Due	5th Background Sample
							Initial Exceedance		
MW-6A	antimony	3/4/2016	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/20/2016	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	3/9/2017	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/14/2017	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	12/13/2017	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	3/12/2018	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/10/2018	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	3/26/2019	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/16/2019	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	3/24/2020	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/2/2020	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	3/8/2021	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/14/2021	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	2/28/2022	<2.0	2.6	---	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/13/2022	3.0	2.6	0.324	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	3/23/2023	<2.0	2.6	0.324	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/5/2023	Dry	5.5	0.324	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	3/6/2024	Dry	5.5	0.324	6.0	9/13/2022	NA	8/27/2015
MW-6A	antimony	9/18/2024	<2.0	5.5	0.324	6.0	9/13/2022	NA	8/27/2015



**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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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-6A	cobalt	3/4/2016	<0.8	3.5	---	3.5	NA	NA	8/27/2015
MW-6A	cobalt	9/20/2016	1.2	3.5	---	3.5	NA	NA	8/27/2015
MW-6A	cobalt	3/9/2017	<0.8	3.5	---	3.5	NA	NA	8/27/2015
MW-6A	cobalt	9/14/2017	5.4	3.5	---	3.5	NA	NA	8/27/2015
MW-6A	cobalt	12/13/2017	1.4	3.5	---	3.5	NA	NA	8/27/2015
MW-6A	cobalt	3/12/2018	<2.0	3.5	---	3.5	NA	NA	8/27/2015
MW-6A	cobalt	9/10/2018	2.2	3.5	0.000	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	3/26/2019	<0.8	3.5	0.075	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	9/16/2019	1.3	3.5	0.061	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	3/24/2020	<0.8	3.5	0.061	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	9/2/2020	0.7	3.5	0.201	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	3/8/2021	17.5	3.5	0.000	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	9/14/2021	1.9	3.5	0.000	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	2/28/2022	2.8	3.5	0.000	3.5	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	9/13/2022	0.4	7.2	0.000	7.2	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	3/23/2023	<0.4	7.2	0.000	7.2	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	9/5/2023	Dry	4.226	0.000	7.2	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	3/6/2024	Dry	4.226	0.000	7.2	9/14/2017	12/13/2017	8/27/2015
MW-6A	cobalt	9/18/2024	4.9	4.226	0.000	7.2	9/14/2017	12/13/2017	8/27/2015

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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-6A	nickel	3/4/2016	4.10	16.1	---	100	NA	NA	8/27/2015
MW-6A	nickel	9/20/2016	5.50	16.1	---	100	NA	NA	8/27/2015
MW-6A	nickel	3/9/2017	<4.0	16.1	---	100	NA	NA	8/27/2015
MW-6A	nickel	9/14/2017	13.20	16.1	---	100	NA	NA	8/27/2015
MW-6A	nickel	3/12/2018	5.20	16.1	---	100	NA	NA	8/27/2015
MW-6A	nickel	9/10/2018	22.80	16.1	0.000	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	11/14/2018	35.20	16.1	0.000	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	3/26/2019	4.60	16.1	0.000	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	9/16/2019	11.80	16.1	2.885	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	3/24/2020	5.50	16.1	0.000	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	9/2/2020	5.10	16.1	2.766	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	3/8/2021	28.10	16.1	0.000	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	9/14/2021	5.70	16.1	0.000	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	3/28/2022	25.90	16.1	9.154	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	9/13/2022	28.30	16.1	1.313	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	3/23/2023	18.0	23.8	7.497	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	9/5/2023	Dry	23.8	7.497	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	3/6/2024	Dry	23.8	7.497	100	9/10/2018	12/10/2018	8/27/2015
MW-6A	nickel	9/18/2024	22.6	23.8	18.453	100	9/10/2018	12/10/2018	8/27/2015

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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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-6A	selenium	3/4/2016	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/20/2016	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/9/2017	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/14/2017	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	12/13/2017	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/12/2018	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/10/2018	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/26/2019	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/16/2019	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/24/2020	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/2/2020	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/8/2021	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/14/2021	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/28/2022	<4.0	5.1	---	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/13/2022	<b>84.70</b>	5.1	0.000	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/23/2023	<4.0	16.2	0.000	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/5/2023	Dry	16.2	0.000	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	3/6/2024	Dry	16.2	0.000	50	9/13/2022	NA	8/27/2015
MW-6A	selenium	9/18/2024	<4.0	16.2	0.000	50	9/13/2022	NA	8/27/2015

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



**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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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-14D	antimony	3/4/2016	---	2.00	---	6	NA	NA	3/12/2018
MW-14D	antimony	9/20/2016	<2	2.00	---	6	NA	NA	3/12/2018
MW-14D	antimony	3/9/2017	<2	2.00	---	6	NA	NA	3/12/2018
MW-14D	antimony	9/14/2017	<2	2.00	---	6	NA	NA	3/12/2018
MW-14D	antimony	3/12/2018	2.80	2.00	0.391	6	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	6/11/2018	2.60	2.00	0.391	6	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	9/10/2018	2.20	2.00	1.291	6	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	3/26/2019	2.70	2.00	2.295	6	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	9/16/2019	3.10	2.00	2.215	6	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	3/24/2020	3.00	2.00	2.275	6	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	9/2/2020	2.80	10.90	2.742	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	3/8/2021	2.30	10.90	2.492	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	9/14/2021	2.30	10.90	2.292	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	3/28/2022	3.10	10.90	2.283	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	9/13/2022	<2	10.90	1.422	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	3/23/2023	2.10	10.90	1.422	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	9/5/2023	2.30	10.90	1.422	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	3/6/2024	2.20	10.90	1.355	10.9	3/12/2018	6/12/2018	3/12/2018
MW-14D	antimony	9/18/2024	<2.0	10.90	0.999	10.9	3/12/2018	6/12/2018	3/12/2018

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*Note: The absence of shading indicates that the condition does not exist.*

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI		Resamples Due	5th Background Sample
							Initial Exceedance			
MW-14D	cobalt	9/20/2016	<0.8	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/9/2017	<0.8	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/14/2017	<0.8	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/12/2018	3.10	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/10/2018	2.70	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/26/2019	4.20	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/16/2019	3.90	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/24/2020	3.80	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/2/2020	2.30	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/8/2021	3.00	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/14/2021	4.60	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/28/2022	0.90	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/13/2022	8.50	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/23/2023	1.50	5.40	---	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/5/2023	5.90	5.40	0.000	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	11/28/2023	6.10	5.40	0.000	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	3/6/2024	4.70	5.40	2.050	5.4	11/28/2023	NA	9/10/2018	
MW-14D	cobalt	9/18/2024	1.50	5.40	2.050	5.4	11/28/2023	NA	9/10/2018	

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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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-14D	selenium	3/4/2016	---	4.00	---	50	NA	NA	3/12/2018
MW-14D	selenium	9/20/2016	<4	4.00	---	50	NA	NA	3/12/2018
MW-14D	selenium	3/9/2017	<4	4.00	---	50	NA	NA	3/12/2018
MW-14D	selenium	9/14/2017	<4	4.00	---	50	NA	NA	3/12/2018
MW-14D	selenium	3/12/2018	58.90	4.00	0.000	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	6/11/2018	74.50	4.00	1.533	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	9/10/2018	93.30	4.00	23.071	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	3/26/2019	58.70	4.00	57.148	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	7/17/2019	44.50	4.00	49.578	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	9/16/2019	34.50	4.00	35.497	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	3/24/2020	20.40	4.00	25.530	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	7/20/2020	14.00	4.00	16.436	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	9/2/2020	14.00	4.00	12.354	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	3/8/2021	6.90	4.00	9.049	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	9/14/2021	<4.00	4.00	4.145	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	3/28/2022	<4.00	4.00	1.311	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	9/13/2022	<4.00	4.00	1.103	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	3/23/2023	<4.00	4.00	2.000	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	9/5/2023	<4.00	4.00	2.000	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	3/6/2024	<4.00	4.00	2.000	50	3/12/2018	6/12/2018	3/12/2018
MW-14D	selenium	9/18/2024	<4.00	4.00	2.000	50	3/12/2018	6/12/2018	3/12/2018

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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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-14D	Cis-1,2-DCE	3/4/2016	1.40	1.00	0.000	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/20/2016	<1.0	1.00	0.196	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/9/2017	<1.0	1.00	0.196	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/14/2017	<1.0	1.00	0.196	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/12/2018	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/10/2018	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/26/2019	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/16/2019	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/24/2020	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/2/2020	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/8/2021	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/14/2021	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/28/2022	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/13/2022	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/23/2023	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/5/2023	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	3/6/2024	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016
MW-14D	Cis-1,2-DCE	9/18/2024	<1.0	1.00	0.500	70	3/4/2016	6/4/2016	9/21/2016

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

selenium = completed Corrective Action





**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
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**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

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-17R	barium	3/4/2016	378.00	200.63	---	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/20/2016	369.00	200.63	---	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/9/2017	369.00	200.63	347.792	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/14/2017	411.00	200.63	358.276	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/12/2018	408.00	200.63	361.708	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/10/2018	406.00	182.14	375.24	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/26/2019	430.00	130.00	400.78	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/16/2019	533.00	130.00	373.488	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/24/2020	429.00	130.00	382.734	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/2/2020	398.00	158.84	378.212	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/8/2021	416.00	125.50	372.623	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/14/2021	442.00	119.96	399.152	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/28/2022	446.00	114.79	398.858	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/13/2022	587.00	111.96	381.800	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/23/2023	446.00	109.31	396.508	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/5/2023	422.00	107.48	386.612	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	3/6/2024	432.00	124.06	380.633	2000	3/4/2016	6/4/2016	12/1/2015
MW-17R	barium	9/18/2024	435.00	106.31	422.130	2000	3/4/2016	6/4/2016	12/1/2015

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
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**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-17R	cobalt	3/4/2016	1.20	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/20/2016	1.50	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/9/2017	1.10	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/14/2017	<0.8	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/12/2018	<2.0	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/10/2018	0.80	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/26/2019	0.90	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/16/2019	<0.8	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/24/2020	1.10	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/2/2020	1.10	8.2	---	8.2	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/8/2021	0.90	5.1	---	5.1	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/14/2021	1.50	5.1	---	5.1	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/28/2022	2.10	5.4	---	5.4	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/13/2022	5.60	5.4	0.046	5.4	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/23/2023	1.60	5.4	0.405	5.4	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/5/2023	1.80	5.4	0.547	5.4	9/13/2022	NA	3/12/2018
MW-17R	cobalt	3/6/2024	4.00	5.4	1.007	5.4	9/13/2022	NA	3/12/2018
MW-17R	cobalt	9/18/2024	4.10	5.4	1.275	5.4	9/13/2022	NA	3/12/2018

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-17R	nickel	3/4/2016	16.30	20.00	---	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/20/2016	15.20	20.00	---	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/9/2017	16.60	20.00	---	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/14/2017	20.10	20.00	14.556	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	12/13/2017	17.20	20.00	14.556	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/12/2018	17.60	20.00	16.064	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/10/2018	18.10	20.00	16.736	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/26/2019	20.30	20.00	16.673	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/16/2019	21.40	20.00	17.232	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/24/2020	19.20	20.00	18.080	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/2/2020	19.00	20.00	18.671	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/8/2021	20.80	11.80	18.708	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/14/2021	21.80	11.80	18.628	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/28/2022	22.30	11.80	19.261	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/13/2022	28.90	11.80	19.114	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/23/2023	22.20	11.80	19.793	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/5/2023	21.40	11.80	19.595	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	3/6/2024	18.90	11.80	17.826	100	3/26/2019	6/26/2019	12/1/2015
MW-17R	nickel	9/18/2024	24.20	11.80	19.095	100	3/26/2019	6/26/2019	12/1/2015

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-17R	Cis-1,2-DCE	3/4/2016	3.70	1.00	1.794	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/20/2016	2.60	1.00	2.253	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/9/2017	6.00	1.00	2.283	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/14/2017	2.70	1.00	1.891	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/12/2018	3.50	1.00	1.835	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/10/2018	2.70	1.00	1.887	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/26/2019	3.40	1.00	2.563	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/16/2019	4.90	1.00	2.541	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/24/2020	4.30	1.00	2.683	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/2/2020	3.10	1.00	2.953	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/8/2021	3.30	1.00	2.902	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/14/2021	4.00	1.00	3.007	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/28/2022	4.10	1.00	3.038	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/13/2022	3.40	1.00	3.220	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/23/2023	2.20	1.00	2.398	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/5/2023	3.70	1.00	2.387	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	3/6/2024	1.10	1.00	1.198	70	3/4/2016	6/4/2016	12/1/2015
MW-17R	Cis-1,2-DCE	9/18/2024	1.60	1.00	0.824	70	3/4/2016	6/4/2016	12/1/2015

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-17R	Trans-1,2-DCE	3/4/2016	<1.0	1.00	0.500	100	NA	NA	12/1/2015
MW-17R	Trans-1,2-DCE	9/20/2016	<1.0	1.00	0.500	100	NA	NA	12/1/2015
MW-17R	Trans-1,2-DCE	3/9/2017	<1.0	1.00	0.500	100	NA	NA	12/1/2015
MW-17R	Trans-1,2-DCE	9/14/2017	<1.0	1.00	0.500	100	NA	NA	12/1/2015
MW-17R	Trans-1,2-DCE	3/12/2018	<b>3.30</b>	1.00	0.000	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	9/10/2018	<1.0	1.00	0.000	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	3/26/2019	<1.0	1.00	0.000	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	9/16/2019	<1.0	1.00	0.000	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	3/24/2020	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	9/2/2020	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	3/8/2021	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	9/14/2021	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	3/28/2022	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	9/13/2022	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	3/23/2023	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	9/5/2023	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	3/6/2024	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015
MW-17R	Trans-1,2-DCE	9/18/2024	<1.0	1.00	0.500	100	3/12/2018	6/12/2018	12/1/2015

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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)	95% UCL (ug/L)	GWPS Limit (ug/L)	SSI Initial Exceedance	Resamples Due	5th Background Sample
MW-21	cobalt	3/4/2016	<0.8	3.92	0.400	0.400	<b>3.92</b>	NA	NA	8/27/2015
MW-21	cobalt	9/20/2016	<0.8	3.92	0.400	0.400	<b>3.92</b>	NA	NA	8/27/2015
MW-21	cobalt	3/9/2017	<0.8	3.92	0.400	0.400	<b>3.92</b>	NA	NA	8/27/2015
MW-21	cobalt	9/14/2017	<0.8	3.92	0.400	0.400	<b>3.92</b>	NA	NA	8/27/2015
MW-21	cobalt	3/12/2018	<2.0	3.92	0.290	0.810	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	9/10/2018	0.80	3.50	0.390	0.910	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	3/26/2019	<0.8	3.50	0.390	0.910	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	9/16/2019	<0.8	3.50	0.390	0.910	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	3/24/2020	<0.8	3.50	0.327	0.673	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	9/2/2020	<0.4	3.50	0.263	0.437	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	9/14/2021	0.70	3.50	0.246	0.603	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	3/28/2022	0.40	3.50	0.246	0.603	<b>3.5</b>	NA	NA	8/27/2015
MW-21	cobalt	9/13/2022	5.10	7.20	0.000	3.629	<b>7.2</b>	NA	NA	8/27/2015
MW-21	cobalt	3/23/2023	<0.4	7.20	0.000	3.629	<b>7.2</b>	NA	NA	8/27/2015
MW-21	cobalt	9/5/2023	<0.4	4.14	0.000	3.570	<b>7.2</b>	NA	NA	8/27/2015
MW-21	cobalt	3/6/2024	<0.4	4.14	0.000	3.570	<b>7.2</b>	NA	NA	8/27/2015
MW-21	cobalt	9/18/2024	<0.4	4.23	0.200	0.200	<b>7.2</b>	NA	NA	8/27/2015

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-28	arsenic	3/24/2020	72.8	21.9	---	<b>21.9</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	9/2/2020	<4.0	21.9	---	<b>21.9</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	3/8/2021	13.8	5.8	---	<b>10</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	10/15/2021	4.3	5.8	0.000	<b>10</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	3/28/2022	38.7	5.8	0.000	<b>10</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	9/13/2022	8.2	5.8	0.000	<b>10</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	3/23/2023	100	5.8	0.000	<b>10</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	9/5/2023	8.8	5.8	0.000	<b>10</b>	3/24/2020	NA	3/28/2022
MW-28	arsenic	3/6/2024	59.7	5.8	0.000	<b>10</b>	3/24/2020	NA	3/28/2022

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-28	arsenic	9/18/2024	4.0	5.8	0.000	<b>10</b>	3/24/2020	NA	3/28/2022
MW-28	barium	3/24/2020	1030	130.000	---	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	9/2/2020	655	130.000	---	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	3/8/2021	735	125.503	---	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	10/15/2021	679	119.960	570.739	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	3/28/2022	1080	114.793	554.316	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	9/13/2022	865	111.959	630.240	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	3/23/2023	1570	109.310	596.403	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	9/5/2023	647	107.479	576.115	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	3/6/2024	1390	124.064	607.911	<b>2000</b>	3/24/2020	NA	3/28/2022
MW-28	barium	9/18/2024	652	106.306	494.142	<b>2000</b>	3/24/2020	NA	3/28/2022

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-28	cobalt	3/24/2020	38.2	8.2	---	<b>8.2</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	9/2/2020	41.9	8.2	---	<b>8.2</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	3/8/2021	47.3	5.1	---	<b>5.1</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	10/15/2021	40.7	5.1	37.509	<b>5.1</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	3/28/2022	79.3	5.4	30.859	<b>5.4</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	9/13/2022	54.2	5.4	35.525	<b>5.4</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	3/23/2023	82.1	5.4	40.543	<b>5.4</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	9/5/2023	28.6	5.4	31.634	<b>5.4</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	3/6/2024	72.7	5.4	31.665	<b>5.4</b>	3/24/2020	NA	3/28/2022
MW-28	cobalt	9/18/2024	23.4	5.4	16.414	<b>5.4</b>	3/24/2020	NA	3/28/2022

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-28	nickel	3/24/2020	20.2	20.0	---	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	9/2/2020	21.5	20.0	---	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	3/8/2021	23.7	11.8	---	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	10/15/2021	18.8	11.8	18.600	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	3/28/2022	29.0	11.8	18.162	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	9/13/2022	22.0	11.8	18.358	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	3/23/2023	29.8	11.8	18.586	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	9/5/2023	19.1	11.8	18.794	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	3/6/2024	26.9	11.8	18.799	<b>100</b>	3/24/2020	NA	3/28/2022
MW-28	nickel	9/18/2024	15.2	11.8	14.794	<b>100</b>	3/24/2020	NA	3/28/2022

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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-28	selenium	7/17/2019	<4	4.0	---	50	NA	NA	NA
MW-28	selenium	9/16/2019	<4	4.0	---	50	NA	NA	NA
MW-28	selenium	3/24/2020	<4	4.0	---	50	NA	NA	NA
MW-28	selenium	9/2/2020	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	3/8/2021	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	10/15/2021	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	3/28/2022	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	9/13/2022	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	3/23/2023	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	9/5/2023	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	3/6/2024	<4	4.0	2.000	50	NA	NA	NA
MW-28	selenium	9/18/2024	<4	4.0	2.000	50	NA	NA	NA

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-28	1,1-dichloroethane	9/20/2016	<1.0	1.0	---	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/9/2017	<1.0	1.0	---	140	NA	NA	NA
MW-28	1,1-dichloroethane	9/14/2017	<1.0	1.0	---	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/12/2018	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	9/10/2018	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/26/2019	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	9/16/2019	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/24/2020	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	9/2/2020	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/8/2021	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	10/15/2021	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/28/2022	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	9/13/2022	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/23/2023	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	9/5/2023	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	3/6/2024	<1.0	1.0	0.500	140	NA	NA	NA
MW-28	1,1-dichloroethane	9/18/2024	<1.0	1.0	0.500	140	NA	NA	NA

**Table 7**  
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**SCILA Sanitary Landfill**  
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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-28	1,2-dichloropropane	9/20/2016	<1.0	1.0	---	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/9/2017	<1.0	1.0	---	5	NA	NA	NA
MW-28	1,2-dichloropropane	9/14/2017	<1.0	1.0	---	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/12/2018	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	9/10/2018	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/26/2019	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	9/16/2019	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/24/2020	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	9/2/2020	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/8/2021	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	10/15/2021	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/28/2022	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	9/13/2022	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/23/2023	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	9/5/2023	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	3/6/2024	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	1,2-dichloropropane	9/18/2024	<1.0	1.0	0.500	5	NA	NA	NA



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							Initial Exceedance	Resamples Due	
MW-28	1,4-dichlorobenzene	9/20/2016	<1.0	1.0	---	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/9/2017	<1.0	1.0	---	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	9/14/2017	<1.0	1.0	---	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/12/2018	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	9/10/2018	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/26/2019	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	9/16/2019	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/24/2020	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	9/2/2020	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/8/2021	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	10/15/2021	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/28/2022	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	9/13/2022	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/23/2023	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	9/5/2023	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	3/6/2024	<1.0	1.0	0.500	75	NA	NA	NA
MW-28	1,4-dichlorobenzene	9/18/2024	<1.0	1.0	0.500	75	NA	NA	NA

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
MW-28	benzene	9/20/2016	<1.0	1.0	---	5	NA	NA	NA
MW-28	benzene	3/9/2017	<1.0	1.0	---	5	NA	NA	NA
MW-28	benzene	9/14/2017	<1.0	1.0	---	5	NA	NA	NA
MW-28	benzene	3/12/2018	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	9/10/2018	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	3/26/2019	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	9/16/2019	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	3/24/2020	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	9/2/2020	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	3/8/2021	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	10/15/2021	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	3/28/2022	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	9/13/2022	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	3/23/2023	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	9/5/2023	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	3/6/2024	<1.0	1.0	0.500	5	NA	NA	NA
MW-28	benzene	9/18/2024	<1.0	1.0	0.500	5	NA	NA	NA

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							Initial Exceedance	Resamples Due	5th Background Sample
MW-28	chlorobenzene	9/20/2016	<1.0	1.0	---	100	NA	NA	NA
MW-28	chlorobenzene	3/9/2017	<1.0	1.0	---	100	NA	NA	NA
MW-28	chlorobenzene	9/14/2017	<1.0	1.0	---	100	NA	NA	NA
MW-28	chlorobenzene	3/12/2018	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	9/10/2018	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	3/26/2019	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	9/16/2019	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	3/24/2020	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	9/2/2020	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	3/8/2021	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	10/15/2021	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	3/28/2022	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	9/13/2022	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	3/23/2023	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	9/5/2023	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	3/6/2024	<1.0	1.0	0.500	100	NA	NA	NA
MW-28	chlorobenzene	9/18/2024	<1.0	1.0	0.500	100	NA	NA	NA

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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-28	cis-1,2-DCE	9/20/2016	<b>5.00</b>	1.0	---	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/9/2017	<b>15.30</b>	1.0	---	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	9/14/2017	<b>15.20</b>	1.0	---	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/12/2018	<b>21.60</b>	1.0	6.194	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	9/10/2018	<b>12.20</b>	1.0	11.424	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/26/2019	<b>17.70</b>	1.0	11.994	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	9/16/2019	<b>13.40</b>	1.0	11.177	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/24/2020	<b>15.60</b>	1.0	11.864	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	9/2/2020	<b>17.10</b>	1.0	13.697	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/8/2021	<b>10.30</b>	1.0	10.625	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	10/15/2021	<b>21.00</b>	1.0	10.790	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/28/2022	<b>15.70</b>	1.0	10.818	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	9/13/2022	<b>14.10</b>	1.0	10.055	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/23/2023	<b>10.00</b>	1.0	9.846	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	9/5/2023	<b>12.20</b>	1.0	10.108	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	3/6/2024	<b>10.80</b>	1.0	8.769	70	9/20/2016	NA	9/10/2018
MW-28	cis-1,2-DCE	9/18/2024	<b>20.20</b>	1.0	9.045	70	9/20/2016	NA	9/10/2018

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							Initial Exceedance	Resamples Due	
MW-28	trans-1,2-DCE	9/20/2016	<1.0	1.0	---	100	NA	NA	NA
MW-28	trans-1,2-DCE	3/9/2017	<1.0	1.0	---	100	NA	NA	NA
MW-28	trans-1,2-DCE	9/14/2017	<1.0	1.0	---	100	NA	NA	NA
MW-28	trans-1,2-DCE	3/12/2018	<b>20.20</b>	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	9/10/2018	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	3/26/2019	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	9/16/2019	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	3/24/2020	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	9/2/2020	<b>1.10</b>	1.0	0.297	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	3/8/2021	<1.0	1.0	0.297	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	10/15/2021	<1.0	1.0	0.297	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	3/28/2022	<1.0	1.0	0.297	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	9/13/2022	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	3/23/2023	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	9/5/2023	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	3/6/2024	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018
MW-28	trans-1,2-DCE	9/18/2024	<1.0	1.0	0.500	100	3/12/2018	NA	9/10/2018

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							Initial Exceedance	Resamples Due	
MW-28	TCE	9/20/2016	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/9/2017	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	9/14/2017	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/12/2018	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	9/10/2018	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/26/2019	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	9/16/2019	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/24/2020	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	9/2/2020	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/8/2021	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	10/15/2021	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/28/2022	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	9/13/2022	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/23/2023	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	9/5/2023	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	3/6/2024	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018
MW-28	TCE	9/18/2024	<1.0	1.0	---	5	3/12/2018	NA	9/10/2018

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							Initial Exceedance	Resamples Due	
MW-28	Vinyl Chloride	9/20/2016	<1.0	1.0	---	2	NA	NA	NA
MW-28	Vinyl Chloride	3/9/2017	<b>1.80</b>	1.0	---	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	9/14/2017	<b>1.10</b>	1.0	---	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	3/12/2018	<b>2.00</b>	1.0	0.544	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	9/10/2018	<1.0	1.0	0.544	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	3/26/2019	<b>1.40</b>	1.0	0.515	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	9/16/2019	<1.0	1.0	0.236	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	3/24/2020	<1.0	1.0	0.196	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	9/2/2020	<b>1.50</b>	1.0	0.328	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	3/8/2021	<1.0	1.0	0.162	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	10/15/2021	<b>1.60</b>	1.0	0.310	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	3/28/2022	<b>1.50</b>	1.0	0.665	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	9/13/2022	<1.0	1.0	0.310	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	3/23/2023	<b>1.20</b>	1.0	0.616	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	9/5/2023	<1.0	1.0	0.330	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	3/6/2024	<1.0	1.0	0.263	2	3/9/2017	NA	9/10/2018
MW-28	Vinyl Chloride	9/18/2024	<b>1.30</b>	1.0	0.363	2	3/9/2017	NA	9/10/2018





**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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-44	arsenic	7/12/2023	<4.0	48.2800	---	<b>48.28</b>	NA	NA	pending
MW-44	arsenic	9/5/2023	<4.0	48.5800	---	<b>48.58</b>	NA	NA	pending
MW-44	arsenic	3/6/2024	<4.0	47.9881	---	<b>48.58</b>	NA	NA	pending
MW-44	arsenic	9/18/2024	<4.0	47.9881	2.000	<b>48.58</b>	NA	NA	pending
MW-44	barium	7/12/2023	624.00	618.9496	---	2000	7/12/2023	9/5/2023	9/18/2024
MW-44	barium	9/5/2023	708.00	623.3256	---	2000	7/12/2023	9/5/2023	9/18/2024
MW-44	barium	11/28/2023	803.00	623.3256	---	2000	7/12/2023	9/5/2023	9/18/2024
MW-44	barium	3/6/2024	795.00	623.3256	633.503	2000	7/12/2023	9/5/2023	9/18/2024
MW-44	barium	9/18/2024	662.00	624.2924	661.398	2000	7/12/2023	9/5/2023	9/18/2024

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



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							Initial Exceedance		
Tile 1	Barium	6/5/2019	1010	564.26	---	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	9/16/2019	1350	564.26	---	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	3/24/2020	754	561.21	---	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	9/2/2020	2210	563.15	765.539	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	3/8/2021	1060	563.97	606.167	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	9/14/2021	1940	568.12	673.926	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	3/28/2022	774	586.70	687.204	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	9/13/2022	2660	572.52	598.264	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	3/23/2023	953	618.95	543.157	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	9/5/2023	2510	623.33	549.760	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	3/6/2024	2250	623.33	1177.147	2000	6/5/2019	NA	Sep-20
Tile 1	Barium	9/18/2024	2340	624.29	1172.195	2000	6/5/2019	NA	Sep-20

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							Initial Exceedance	Resamples Due	5th Background Sample
Tile 1	Cobalt	6/5/2019	1.8	3.5	---	3.5	9/16/2019	NA	Sep-20
Tile 1	Cobalt	9/16/2019	3.6	3.5	---	3.5	9/16/2019	NA	Sep-20
Tile 1	Cobalt	3/24/2020	1.8	3.5	---	3.5	9/16/2019	NA	Sep-20
Tile 1	Cobalt	9/2/2020	3.1	3.5	1.495	3.5	9/16/2019	NA	Sep-20
Tile 1	Cobalt	3/8/2021	2.9	3.5	1.957	3.5	9/16/2019	NA	Sep-20
Tile 1	Cobalt	9/14/2021	2.8	3.5	1.967	3.5	9/16/2019	NA	Sep-20
Tile 1	Cobalt	3/28/2022	2.2	3.5	2.294	3.5	9/16/2019	NA	Sep-20
Tile 1	Cobalt	9/13/2022	7.6	7.2	0.931	7.2	9/16/2019	NA	Sep-20
Tile 1	Cobalt	3/23/2023	2.4	7.2	0.717	7.2	9/16/2019	NA	Sep-20
Tile 1	Cobalt	9/5/2023	3.3	4.14	0.900	7.2	9/16/2019	NA	Sep-20
Tile 1	Cobalt	3/6/2024	2.5	4.14	1.049	7.2	9/16/2019	NA	Sep-20
Tile 1	Cobalt	9/18/2024	3.2	4.23	2.302	7.2	9/16/2019	NA	Sep-20

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							Initial Exceedance			
Tile 1	Nickel	6/5/2019	13.4	16.1	---	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	9/16/2019	21.2	16.1	---	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	3/24/2020	9.8	16.1	---	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	9/2/2020	35.8	16.1	6.490	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	3/8/2021	20.8	16.1	9.353	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	9/14/2021	37.1	16.1	10.558	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	3/28/2022	14	16.1	13.567	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	9/13/2022	46.1	16.1	12.195	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	3/23/2023	13.4	28.3	8.213	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	9/5/2023	43.6	28.3	8.084	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	3/6/2024	43.5	23.8	18.363	100	9/16/2019	NA	Sep-20	
Tile 1	Nickel	9/18/2024	43.5	23.8	18.277	100	9/16/2019	NA	Sep-20	

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							Initial Exceedance		
Tile 1	1,1-dichloroethane	9/20/2016	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	11/9/2016	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/9/2017	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/14/2017	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/12/2018	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/10/2018	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/26/2019	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	6/5/2019	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/16/2019	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/24/2020	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/2/2020	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/8/2021	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/14/2021	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/28/2022	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/13/2022	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/23/2023	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/5/2023	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	3/6/2024	<1.0	1.0	0.500	140	NA	NA	9/14/2017
Tile 1	1,1-dichloroethane	9/18/2024	<1.0	1.0	0.500	140	NA	NA	9/14/2017

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							Initial Exceedance		
Tile 1	1,2-dichloropropane	9/20/2016	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	11/9/2016	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/9/2017	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/14/2017	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/12/2018	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/10/2018	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/26/2019	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	6/5/2019	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/16/2019	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/24/2020	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/2/2020	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/8/2021	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/14/2021	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/28/2022	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/13/2022	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/23/2023	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/5/2023	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	3/6/2024	<1.0	1.0	0.500	5	NA	NA	9/14/2017
Tile 1	1,2-dichloropropane	9/18/2024	<1.0	1.0	0.500	5	NA	NA	9/14/2017

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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		Resamples Due	5th Background Sample
							Initial Exceedance			
Tile 1	1,4-dichlorobenzene	9/20/2016	1.30	1.0	---	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	11/9/2016	1.80	1.0	---	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/9/2017	2.60	1.0	---	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/14/2017	4.50	1.0	0.896	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/12/2018	5.60	1.0	1.582	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/10/2018	1.70	1.0	1.516	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/26/2019	1.80	1.0	1.097	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	6/5/2019	<1.0	1.0	1.097	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/16/2019	<1.0	1.0	0.275	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/24/2020	1.80	1.0	0.267	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/2/2020	3.70	1.0	0.000	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/8/2021	1.60	1.0	0.337	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/14/2021	2.50	1.0	1.284	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/28/2022	1.40	1.0	1.066	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/13/2022	2.30	1.0	1.324	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/23/2023	1.60	1.0	1.324	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/5/2023	4.50	1.0	0.780	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	3/6/2024	1.80	1.0	0.982	75	9/20/2016	NA	9/14/2017	
Tile 1	1,4-dichlorobenzene	9/18/2024	3.30	1.0	1.196	75	9/20/2016	NA	9/14/2017	



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							Initial Exceedance			
Tile 1	benzene	9/20/2016	<1.0	1.0	---	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	11/9/2016	1.60	1.0	---	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/9/2017	2.20	1.0	---	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/14/2017	2.70	1.0	0.636	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/12/2018	3.70	1.0	1.504	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/10/2018	<1.0	1.0	0.702	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/26/2019	<1.0	1.0	0.000	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	6/5/2019	<1.0	1.0	0.000	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/16/2019	<1.0	1.0	0.500	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/24/2020	<1.0	1.0	0.500	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/2/2020	1.90	1.0	0.027	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/8/2021	<1.0	1.0	0.027	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/14/2021	1.10	1.0	0.220	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/28/2022	<1.0	1.0	0.220	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/13/2022	2.10	1.0	0.162	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/23/2023	<1.0	1.0	0.162	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/5/2023	3.00	1.0	0.067	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	3/6/2024	<1.0	1.0	0.067	5	11/9/2016		NA	9/14/2017
Tile 1	benzene	9/18/2024	1.80	1.0	0.037	5	11/9/2016		NA	9/14/2017

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							Initial Exceedance			
Tile 1	chlorobenzene	9/20/2016	3.40	1.0	---	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	11/9/2016	3.60	1.0	---	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/9/2017	7.90	1.0	---	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/14/2017	5.80	1.0	2.685	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/12/2018	7.20	1.0	3.894	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/10/2018	4.30	1.0	4.425	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/26/2019	3.00	1.0	2.933	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	6/5/2019	4.90	1.0	2.933	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/16/2019	4.10	1.0	3.142	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/24/2020	3.90	1.0	3.057	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/2/2020	4.40	1.0	3.813	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/8/2021	2.70	1.0	2.898	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/14/2021	2.70	1.0	2.411	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/28/2022	2.90	1.0	2.208	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/13/2022	3.00	1.0	2.649	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/23/2023	2.90	1.0	2.727	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/5/2023	5.60	1.0	2.031	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	3/6/2024	1.80	1.0	1.430	100	9/20/2016	NA	9/14/2017	
Tile 1	chlorobenzene	9/18/2024	4.30	1.0	1.704	100	9/20/2016	NA	9/14/2017	

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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		5th Background Sample
							Initial Exceedance	Resamples Due	
Tile 1	chloroform	9/20/2016	<1.0	1.0	---	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	11/9/2016	<1.0	1.0	---	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/9/2017	<1.0	1.0	---	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/14/2017	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/12/2018	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/10/2018	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/26/2019	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	6/5/2019	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/16/2019	1.40	1.0	0.196	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/24/2020	<1.0	1.0	0.196	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/2/2020	<1.0	1.0	0.196	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/8/2021	<1.0	1.0	0.196	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/14/2021	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/28/2022	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/13/2022	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/23/2023	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/5/2023	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	3/6/2024	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017
Tile 1	chloroform	9/18/2024	<1.0	1.0	0.500	80	9/16/2019	NA	9/14/2017

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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		Resamples Due	5th Background Sample
							Initial Exceedance			
Tile 1	cis-1,2-DCE	9/20/2016	7.00	1.0	---	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	11/9/2016	2.80	1.0	---	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/9/2017	3.90	1.0	---	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/14/2017	<1.0	1.0	0.373	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/12/2018	1.00	1.0	0.191	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/10/2018	<1.0	1.0	0.000	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/26/2019	3.60	1.0	0.000	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	6/5/2019	5.70	1.0	0.000	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/16/2019	3.90	1.0	0.885	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/24/2020	3.20	1.0	2.801	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/2/2020	1.70	1.0	1.672	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/8/2021	<1.0	1.0	0.532	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/14/2021	1.00	1.0	0.218	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/28/2022	<1.0	1.0	0.257	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/13/2022	<1.0	1.0	0.331	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/23/2023	<1.0	1.0	0.331	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/5/2023	<1.0	1.0	0.500	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	3/6/2024	<1.0	1.0	0.500	70	9/20/2016	NA	9/14/2017	
Tile 1	cis-1,2-DCE	9/18/2024	<1.0	1.0	0.500	70	9/20/2016	NA	9/14/2017	

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							Initial Exceedance			
Tile 1	trans-1,2-DCE	9/20/2016	<1.0	1.0	---	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	11/9/2016	<1.0	1.0	---	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/9/2017	<1.0	1.0	---	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/14/2017	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/12/2018	1.10	1.0	0.297	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/10/2018	<1.0	1.0	0.297	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/26/2019	<1.0	1.0	0.297	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	6/5/2019	<1.0	1.0	0.297	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/16/2019	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/24/2020	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/2/2020	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/8/2021	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/14/2021	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/28/2022	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/13/2022	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/23/2023	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/5/2023	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	3/6/2024	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	
Tile 1	trans-1,2-DCE	9/18/2024	<1.0	1.0	0.500	100	3/12/2018	NA	9/14/2017	

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Tile 1	TCE	9/20/2016	<1.0	1.0	---	5		NA	9/14/2017
Tile 1	TCE	11/9/2016	<1.0	1.0	---	5		NA	9/14/2017
Tile 1	TCE	3/9/2017	<1.0	1.0	---	5		NA	9/14/2017
Tile 1	TCE	9/14/2017	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	3/12/2018	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	9/10/2018	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	3/26/2019	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	6/5/2019	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	9/16/2019	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	3/24/2020	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	9/2/2020	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	3/8/2021	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	9/14/2021	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	3/28/2022	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	9/13/2022	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	3/23/2023	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	9/5/2023	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	3/6/2024	<1.0	1.0	0.500	5		NA	9/14/2017
Tile 1	TCE	9/18/2024	<1.0	1.0	0.500	5		NA	9/14/2017

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							Initial Exceedance			
Tile 1	Vinyl Chloride	9/20/2016	<b>3.00</b>	1.0	---	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	11/9/2016	<b>3.60</b>	1.0	---	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/9/2017	<b>4.00</b>	1.0	---	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/14/2017	<1.0	1.0	0.927	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/12/2018	<1.0	1.0	0.000	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/10/2018	<1.0	1.0	0.000	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/26/2019	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	6/5/2019	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/16/2019	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/24/2020	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/2/2020	<b>1.20</b>	1.0	0.263	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/8/2021	<1.0	1.0	0.263	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/14/2021	<1.0	1.0	0.263	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/28/2022	<1.0	1.0	0.263	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/13/2022	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/23/2023	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/5/2023	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	3/6/2024	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	
Tile 1	Vinyl Chloride	9/18/2024	<1.0	1.0	0.500	2	9/20/2016	NA	9/14/2017	

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





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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	Resamples Due	5th Background Sample
							Initial Exceedance		
Tile2	Barium	6/5/2019	504	564.26	---	2000	9/16/2019	NA	NA
Tile2	Barium	9/16/2019	618	564.26	---	2000	9/16/2019	NA	NA
Tile2	Barium	3/24/2020	459	561.21	---	2000	9/16/2019	NA	NA
Tile2	Barium	9/2/2020	1060	563.15	337.038	2000	9/16/2019	NA	NA
Tile2	Barium	3/8/2021	500	563.97	335.138	2000	9/16/2019	NA	NA
Tile2	Barium	9/14/2021	568	568.12	318.397	2000	9/16/2019	NA	NA
Tile2	Barium	3/28/2022	504	586.70	340.632	2000	9/16/2019	NA	NA
Tile2	Barium	9/13/2022	860	572.52	407.014	2000	9/16/2019	NA	NA
Tile2	Barium	3/23/2023	481	618.95	397.306	2000	9/16/2019	NA	NA
Tile2	Barium	9/5/2023	590	623.33	404.140	2000	9/16/2019	NA	NA
Tile2	Barium	3/6/2024	528	623.33	415.388	2000	9/16/2019	NA	NA
Tile2	Barium	9/18/2024	638	624.29	478.189	2000	9/16/2019	NA	NA

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							Initial Exceedance	Resamples Due	5th Background Sample
Tile2	cobalt	6/5/2019	1.8	3.50	---	3.5	NA	NA	NA
Tile2	cobalt	9/16/2019	2.9	3.50	---	3.5	NA	NA	NA
Tile2	cobalt	3/24/2020	1.1	3.50	---	3.5	NA	NA	NA
Tile2	cobalt	9/2/2020	3.9	3.50	0.977	3.5	NA	NA	NA
Tile2	cobalt	3/8/2021	1.0	3.50	0.558	3.5	NA	NA	NA
Tile2	cobalt	9/14/2021	2.3	3.50	0.484	3.5	NA	NA	NA
Tile2	cobalt	3/28/2022	1.2	3.50	0.537	3.5	NA	NA	NA
Tile2	cobalt	9/13/2022	6.1	7.20	0.000	7.2	NA	NA	NA
Tile2	cobalt	3/23/2023	0.6	7.20	0.000	7.2	NA	NA	NA
Tile2	cobalt	9/5/2023	1.5	4.14	0.000	7.2	NA	NA	NA
Tile2	cobalt	3/6/2024	0.8	4.14	0.000	7.2	NA	NA	NA
Tile2	cobalt	9/18/2024	1.8	4.23	0.507	7.2	NA	NA	NA

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							Initial Exceedance	Resamples Due	5th Background Sample
Tile2	1,1-dichloroethane	9/10/2018	<1.0	1.0	---	140	NA	NA	NA
Tile2	1,1-dichloroethane	3/26/2019	<1.0	1.0	---	140	NA	NA	NA
Tile2	1,1-dichloroethane	6/5/2019	<1.0	1.0	---	140	NA	NA	NA
Tile2	1,1-dichloroethane	9/16/2019	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	3/24/2020	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	9/2/2020	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	3/8/2021	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	9/14/2021	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	3/28/2022	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	9/13/2022	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	3/23/2023	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	9/5/2023	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	3/6/2024	<1.0	1.0	0.500	140	NA	NA	NA
Tile2	1,1-dichloroethane	9/18/2024	<1.0	1.0	0.500	140	NA	NA	NA

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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
Tile2	1,2-dichloropropane	9/10/2018	<1.0	1.0	---	5	NA	NA	NA
Tile2	1,2-dichloropropane	3/26/2019	<1.0	1.0	---	5	NA	NA	NA
Tile2	1,2-dichloropropane	6/5/2019	<1.0	1.0	---	5	NA	NA	NA
Tile2	1,2-dichloropropane	9/16/2019	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	3/24/2020	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	9/2/2020	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	3/8/2021	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	9/14/2021	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	3/28/2022	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	9/13/2022	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	3/23/2023	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	9/5/2023	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	3/6/2024	<1.0	1.0	0.500	5	NA	NA	NA
Tile2	1,2-dichloropropane	9/18/2024	<1.0	1.0	0.500	5	NA	NA	NA

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							Initial Exceedance		
Tile2	1,4-dichlorobenzene	9/10/2018	<1.0	1.0	---	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	3/26/2019	1.00	1.0	---	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	6/5/2019	<1.0	1.0	---	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	9/16/2019	<1.0	1.0	0.331	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	3/24/2020	<1.0	1.0	0.331	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	9/2/2020	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	3/8/2021	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	9/14/2021	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	3/28/2022	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	9/13/2022	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	3/23/2023	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	9/5/2023	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	3/6/2024	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20
Tile2	1,4-dichlorobenzene	9/18/2024	<1.0	1.0	0.500	75	3/26/2019	NA	Mar-20

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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		5th Background Sample
							Initial Exceedance	Resamples Due	
Tile2	benzene	9/10/2018	<1.0	1.0	---	5	NA	NA	Mar-20
Tile2	benzene	3/26/2019	<1.0	1.0	---	5	NA	NA	Mar-20
Tile2	benzene	6/5/2019	<1.0	1.0	---	5	NA	NA	Mar-20
Tile2	benzene	9/16/2019	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	3/24/2020	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	9/2/2020	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	3/8/2021	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	9/14/2021	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	3/28/2022	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	9/13/2022	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	3/23/2023	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	9/5/2023	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	3/6/2024	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	benzene	9/18/2024	<1.0	1.0	0.500	5	NA	NA	Mar-20

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*Note: The absence of shading indicates that the condition does not exist.*

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI	Resamples Due	5th Background Sample
							Initial Exceedance		
Tile2	chlorobenzene	9/10/2018	<1.0	1.0	---	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	3/26/2019	2.00	1.0	---	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	6/5/2019	1.20	1.0	---	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	9/16/2019	2.20	1.0	0.557	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	3/24/2020	1.00	1.0	0.907	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	9/2/2020	1.10	1.0	0.721	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	3/8/2021	<1.0	1.0	0.357	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	9/14/2021	<1.0	1.0	0.398	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	3/28/2022	<1.0	1.0	0.398	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	9/13/2022	<1.0	1.0	0.500	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	3/23/2023	<1.0	1.0	0.500	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	9/5/2023	<1.0	1.0	0.500	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	3/6/2024	<1.0	1.0	0.500	100	3/26/2019	NA	Mar-20
Tile2	chlorobenzene	9/18/2024	1.10	1.0	0.297	100	3/26/2019	NA	Mar-20

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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		5th Background Sample
							Initial Exceedance	Resamples Due	
Tile2	cis-1,2-DCE	9/10/2018	6.60	1.0	---	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	3/26/2019	19.90	1.0	---	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	6/5/2019	18.20	1.0	---	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	9/16/2019	5.60	1.0	3.729	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	3/24/2020	10.60	1.0	5.718	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	9/2/2020	1.30	1.0	0.388	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	3/8/2021	8.10	1.0	1.735	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	9/14/2021	3.80	1.0	1.030	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	3/28/2022	2.70	1.0	0.524	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	9/13/2022	4.10	1.0	1.897	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	3/23/2023	6.20	1.0	2.479	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	9/5/2023	2.30	1.0	1.753	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	3/6/2024	6.90	1.0	2.418	70	9/10/2018	NA	Mar-20
Tile2	cis-1,2-DCE	9/18/2024	2.10	1.0	1.400	70	9/10/2018	NA	Mar-20



**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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		5th Background Sample
							Initial Exceedance	Resamples Due	
Tile2	trans-1,2-DCE	9/10/2018	<1.0	1.0	---	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	3/26/2019	<1.0	1.0	---	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	6/5/2019	<1.0	1.0	---	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	9/16/2019	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	3/24/2020	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	9/2/2020	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	3/8/2021	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	9/14/2021	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	3/28/2022	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	9/13/2022	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	3/23/2023	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	9/5/2023	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	3/6/2024	<1.0	1.0	0.500	100	NA	NA	Mar-20
Tile2	trans-1,2-DCE	9/18/2024	<1.0	1.0	0.500	100	NA	NA	Mar-20

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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*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		5th Background Sample
							Initial Exceedance	Resamples Due	
Tile2	TCE	9/10/2018	<1.0	1.0	---	5	NA	NA	Mar-20
Tile2	TCE	3/26/2019	<1.0	1.0	---	5	NA	NA	Mar-20
Tile2	TCE	6/5/2019	<1.0	1.0	---	5	NA	NA	Mar-20
Tile2	TCE	9/16/2019	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	3/24/2020	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	9/2/2020	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	3/8/2021	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	9/14/2021	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	3/28/2022	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	9/13/2022	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	3/23/2023	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	9/5/2023	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	3/6/2024	<1.0	1.0	0.500	5	NA	NA	Mar-20
Tile2	TCE	9/18/2024	<1.0	1.0	0.500	5	NA	NA	Mar-20

**Table 7**  
**Summary of Ongoing & Newly Identified SSI**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS
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Note: The absence of shading indicates that the condition does not exist.

Monitoring Well	Compound	Sample Date	Each Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	GWPS Limit (ug/L)	SSI	Resamples Due	5th Background Sample
							Initial Exceedance		
Tile2	Vinyl Chloride	9/10/2018	<1.0	1.0	---	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	3/26/2019	<b>6.20</b>	1.0	---	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	6/5/2019	<1.0	1.0	---	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	9/16/2019	<b>8.30</b>	1.0	0.000	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	3/24/2020	<b>3.50</b>	1.0	0.649	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	9/2/2020	<b>4.70</b>	1.0	0.455	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	3/8/2021	<b>2.40</b>	1.0	1.712	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	9/14/2021	<b>3.30</b>	1.0	<b>2.362</b>	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	3/28/2022	<b>1.30</b>	1.0	1.233	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	9/13/2022	<b>1.60</b>	1.0	1.096	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	3/23/2023	<b>1.90</b>	1.0	0.984	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	9/5/2023	<b>1.60</b>	1.0	1.312	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	3/6/2024	<b>1.00</b>	1.0	1.081	2	3/26/2019	NA	Mar-20
Tile2	Vinyl Chloride	9/18/2024	<b>2.70</b>	1.0	0.968	2	3/26/2019	NA	Mar-20

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

Table 8 - Summary of Ongoing and Newly Identified SSL

**Table 8**  
**Summary of Ongoing & Newly Identified SSL**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS	SSL UCL>GWPS
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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)
Tile2	Vinyl Chloride	9/10/2018	<1.0	---	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	3/26/2019	<b>6.20</b>	---	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	6/5/2019	<1.0	---	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	9/16/2019	<b>8.30</b>	8.569	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	3/24/2020	<b>3.50</b>	8.601	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	9/2/2020	<b>4.70</b>	8.045	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	3/8/2021	<b>2.40</b>	7.738	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	9/14/2021	<b>3.30</b>	4.588	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	3/28/2022	<b>1.30</b>	4.617	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	9/13/2022	<b>1.60</b>	3.204	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	3/23/2023	<b>1.90</b>	3.066	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	9/5/2023	<b>1.60</b>	1.888	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	3/6/2024	<b>1.00</b>	1.969	2	NA	NA	NA	NA
Tile2	Vinyl Chloride	9/18/2024	<b>2.70</b>	2.632	2	NA	NA	NA	NA

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

Table 9 – Analytical Data Summary

Table 9

Analytical Data Summary for GU-2

Constituents	Units	11/13/2023	11/28/2023 12/5/2023	1/8/2024	3/6/2024	6/3/2024	9/18/2024 9/19/2024
1,1,1,2-tetrachloroethane	ug/L				<1		<1
1,1,1-trichloroethane	ug/L				<1		<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	4.7	2.9	2.0	2.0	2.6	<2.0
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	182	186	219	183	174	230
Benzene	ug/L				<1		<1
Beryllium, total	ug/L	<4	<4	<4	<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	<.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	<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	2.5	1.9	.8	1.0	<4
Copper, total	ug/L	<4	<4	<4	<4	<4	4
Dibromochloromethane	ug/L				<1		<1
Dibromomethane	ug/L				<1		<1
Ethylbenzene	ug/L				<1		<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L				<1		<1
Methylene chloride	ug/L				<5		<5
Nickel, total	ug/L	35.0	34.4	30.8	18.9	22.2	20.6
Selenium, total	ug/L	<4	<4	<4	168	320	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4
Styrene	ug/L				<1		<1
Tetrachloroethylene	ug/L				<1		<1
Thallium, total	ug/L	<2	<2	<2	<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	<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	<20	666	725	691	238	320

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

Table 9

Analytical Data Summary for GU-A

Constituents	Units	11/28/2023 12/5/2023	1/8/2024	3/6/2024	6/3/2024	9/18/2024 9/19/2024
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	10.0	8.3	5.6	3.2	2.7
Arsenic, total	ug/L	<4	<4	<4	<4	<4
Barium, total	ug/L	34.0	31.2	25.8	224.0	44.8
Benzene	ug/L			<1		<1
Beryllium, total	ug/L	<4	<4	<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	1.5	<.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	<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	1.6	3.5
Copper, total	ug/L	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L			<1		<1
Dibromomethane	ug/L			<1		<1
Ethylbenzene	ug/L			<1		<1
Lead, total	ug/L	<4	<4	<4	<4	<4
Methyl iodide	ug/L			<1		<1
Methylene chloride	ug/L			<5		<5
Nickel, total	ug/L	27.5	46.8	36.9	27.5	77.5
Selenium, total	ug/L	25.3	25.2	19.6	23.2	<4.0
Silver, total	ug/L	<4	<4	<4	<4	<4
Styrene	ug/L			<1		<1
Tetrachloroethylene	ug/L			<1		<1
Thallium, total	ug/L	<2	<2	<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	<20	<20
Vinyl acetate	ug/L			<5		<5
Vinyl chloride	ug/L			<1		<1
Xylenes, total	ug/L			<2		<2
Zinc, total	ug/L	1350	323	877	160	739

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



Table 9

Analytical Data Summary for GU-B

Constituents	Units	11/13/2023	11/28/2023 12/5/2023	1/8/2024	3/6/2024	6/3/2024	9/18/2024 9/19/2024
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	7.8	6.9	5.7	7.8	3.8	<2.0
Arsenic, total	ug/L	4.4	<4.0	<4.0	<4.0	<4.0	<4.0
Barium, total	ug/L	68.4	55.3	55.3	77.8	36.4	277.0
Benzene	ug/L				<1		<1
Beryllium, total	ug/L	<4	<4	<4	<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	<.8	<.8	1.2
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	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L				<1		<1
Cis-1,3-dichloropropene	ug/L				<1		<1
Cobalt, total	ug/L	1.0	.7	.6	1.7	<4	10.2
Copper, total	ug/L	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L				<1		<1
Dibromomethane	ug/L				<1		<1
Ethylbenzene	ug/L				<1		<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L				<1		<1
Methylene chloride	ug/L				<5		<5
Nickel, total	ug/L	20.7	15.0	17.6	41.0	55.9	33.3
Selenium, total	ug/L	8.8	6.9	6.9	28.4	15.3	8.3
Silver, total	ug/L	<4	<4	<4	<4	<4	<4
Styrene	ug/L				<1		<1
Tetrachloroethylene	ug/L				<1		<1
Thallium, total	ug/L	<2	<2	<2	<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	<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	<20.0	513.0	167.0	93.2	783.0	65.2

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

Table 9

Analytical Data Summary for L-26

Constituents	Units	9/2/2020	3/8/2021
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	14.0	8.2
2-butanone (mek)	ug/L	9.4	<5.0
2-hexanone (mbk)	ug/L	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5
Acetone	ug/L	<10.0	13.1
Acrylonitrile	ug/L	<5	<5
Benzene	ug/L	4.1	3.3
Bicarbonate, as caco3	mg/L	1890	1160
Bod (5 day)	mg/L	46	31
Bromochloromethane	ug/L	<1	<1
Bromodichloromethane	ug/L	<1	<1
Bromoform	ug/L	<1	<1
Bromomethane	ug/L	<1	<1
Carbon disulfide	ug/L	<1	<1
Carbon tetrachloride	ug/L	<1	<1
Chloride	mg/L	1040	678
Chlorobenzene	ug/L	23.9	13.3
Chloroethane	ug/L	<1	<1
Chloroform	ug/L	<1	<1
Chloromethane	ug/L	<1	<1
Cis-1,2-dichloroethylene	ug/L	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Cobalt, dissolved	ug/L	14.6	
Cobalt, total	ug/L		15
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethane	mg/L	<.01	<.01
Ethene	mg/L	<.01	<.01
Ethylbenzene	ug/L	1	<1
Methane	mg/L	6.96	5.04
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Nitrogen, ammonia	mg/L	235	123
pH	pH	7.0	6.9
Solids, total dissolved	mg/L	3080	1990
Styrene	ug/L	<1	<1
Sulfate	mg/L	140.0	67.4
Tetrachloroethylene	ug/L	<1	<1
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	3.7	2.6

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

Table 9

Analytical Data Summary for LW26

Constituents	Units	4/14/2020	3/28/2022	3/23/2023	4/1/2024
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		7.1	5.6	3.7
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
Benzene	ug/L		2.3	2.4	9.7
Bicarbonate, as cacO3	mg/L	1410	240	473	1520
Bod (5 day)	mg/L	23	8	24	56
Bromochloromethane	ug/L		<1	<1	<1
Bromodichloromethane	ug/L		<1	<1	<1
Bromoform	ug/L		<1	<1	<1
Bromomethane	ug/L		<1	<1	<1
Carbon disulfide	ug/L		<1	<1	<1
Carbon tetrachloride	ug/L		<1	<1	<1
Chemical oxygen demand	mg/L				833
Chloride	mg/L	867.0	75.4	259.0	
Chlorobenzene	ug/L		11.5	9.2	8.2
Chloroethane	ug/L		<1	<1	<1
Chloroform	ug/L		<1	<1	<1
Chloromethane	ug/L		<1	<1	<1
Cis-1,2-dichloroethylene	ug/L		<1	<1	<1
Cis-1,3-dichloropropene	ug/L		<1	<1	<1
Cobalt, total	ug/L		1.0	5.6	11.2
Dibromochloromethane	ug/L		<1	<1	<1
Dibromomethane	ug/L		<1	<1	<1
Ethylbenzene	ug/L		<1	<1	<1
Methyl iodide	ug/L		<1	<1	<1
Methylene chloride	ug/L		<5	<5	<5
Nitrogen, ammonia	mg/L	164.0	11.4	38.2	252.0
pH	pH	7.0	6.3	6.7	7.0
Solids, total dissolved	mg/L	2300	350	732	2350
Solids, total suspended	mg/L				4680
Styrene	ug/L		<1	<1	<1
Sulfate	mg/L	147.0	34.8	4.0	16.2
Tetrachloroethylene	ug/L		<1	<1	<1
Toluene	ug/L		<1.0	1.5	<1.0
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
Vinyl acetate	ug/L		<5	<5	<5
Vinyl chloride	ug/L		<1	<1	<1
Xylenes, total	ug/L		<2.0	2.8	<2.0

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

Table 9

Analytical Data Summary for MW-11C

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	9/16/2019
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	14.2	<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	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	130.0	83.7	83.7	91.5	75.9	71.5	69.9	70.5	68.6
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	1.3	<8	<8	<8	<8	<2.0	<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	9.5	4.9	4.9	5.9	<4.0	<4.0	<4.0	<4.0	<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	<4
Solids, total suspended	mg/L	1260	3							
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	<2	<2
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	20.7	11.9	11.9	15.8	<8.0	<8.0	<8.0	<8.0	<20.0

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

Table 9

Analytical Data Summary for MW-11C

Constituents	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
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	<5	<5	<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	<10	<10	<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
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	67.8	58.8	53.7	62.3	53.4	78.3	69.2	72.3	75.4	88.4
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	<.4	<.4	<.4	<.4	3.6	<.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	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
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	<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.

Table 9

Analytical Data Summary for MW-13

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
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	44.8	38.4	39.3	38.3	46.2	39.3	39.1	41.2	41.9
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	<4.0	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<2.0
Copper, total	ug/L	<4.0	<4.0	<4.0	4.5	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
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	4.7	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<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	<4
Solids, total suspended	mg/L		1490	10						
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	215	<16	<8	<8	<8	<8	<8	<8	<8

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

Table 9

Analytical Data Summary for MW-13

Constituents	9/10/2018	3/26/2019
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	<1	<1
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)	<5	<5
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	40.8	40.9
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	<.8	<.8
Copper, total	<4.0	<4.0
Dibromochloromethane	<1	<1
Dibromomethane	<1	<1
Ethylbenzene	<1	<1
Lead, total	<4	<4
Methyl iodide	<1	<1
Methylene chloride	<5	<5
Nickel, total	<4.0	<4.0
Selenium, total	<4	<4
Silver, total	<4	<4
Solids, total suspended		
Styrene	<1	<1
Tetrachloroethylene	<1	<1
Thallium, total	<4	<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	<8	<8

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

Table 9

## Analytical Data Summary for MW-14

Constituents	Units	3/28/2014
1,1,1,2-tetrachloroethane	ug/L	<1
1,1,1-trichloroethane	ug/L	<1
1,1,2,2-tetrachloroethane	ug/L	<1
1,1,2-trichloroethane	ug/L	<1
1,1-dichloroethane	ug/L	<1
1,1-dichloroethylene	ug/L	<1
1,2,3-trichloropropane	ug/L	<1
1,2-dibromo-3-chloropropane	ug/L	<1
1,2-dibromoethane	ug/L	<1
1,2-dichlorobenzene	ug/L	<1
1,2-dichloroethane	ug/L	<1
1,2-dichloropropane	ug/L	<1
1,4-dichlorobenzene	ug/L	<1
2-butanone (mek)	ug/L	<5
2-hexanone (mbk)	ug/L	<5
4-methyl-2-pentanone (mibk)	ug/L	<5
Acetone	ug/L	<10
Acrylonitrile	ug/L	<5
Antimony, total	ug/L	<2
Arsenic, total	ug/L	7.9
Barium, total	ug/L	238
Benzene	ug/L	<1
Beryllium, total	ug/L	<4
Bromochloromethane	ug/L	<1
Bromodichloromethane	ug/L	<1
Bromoform	ug/L	<1
Bromomethane	ug/L	<1
Cadmium, total	ug/L	<.8
Carbon disulfide	ug/L	<1
Carbon tetrachloride	ug/L	<1
Chlorobenzene	ug/L	1
Chloroethane	ug/L	<1
Chloroform	ug/L	<1
Chloromethane	ug/L	<1
Chromium, total	ug/L	<8
Cis-1,2-dichloroethylene	ug/L	1.8
Cis-1,3-dichloropropene	ug/L	<1
Cobalt, total	ug/L	<4
Copper, total	ug/L	<4
Dibromochloromethane	ug/L	<1
Dibromomethane	ug/L	<1
Ethylbenzene	ug/L	<1
Lead, total	ug/L	<4
Methyl iodide	ug/L	<1
Methylene chloride	ug/L	<5
Nickel, total	ug/L	21.3
Selenium, total	ug/L	<4
Silver, total	ug/L	<4
Styrene	ug/L	<1
Tetrachloroethylene	ug/L	<1
Thallium, total	ug/L	<4
Toluene	ug/L	<1
Trans-1,2-dichloroethylene	ug/L	<1
Trans-1,3-dichloropropene	ug/L	<1
Trans-1,4-dichloro-2-butene	ug/L	<5
Trichloroethylene	ug/L	<1
Trichlorofluoromethane	ug/L	<1
Vanadium, total	ug/L	<20
Vinyl acetate	ug/L	<5
Vinyl chloride	ug/L	<1
Xylenes, total	ug/L	<2
Zinc, total	ug/L	<20

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



Table 9

Analytical Data Summary for MW-14B

Constituents	Units	9/23/2014	3/3/2016
		9/24/2014	3/4/2016
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	<1	<1
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	<5	<5
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	116	
Arsenic, total	ug/L	144	
Barium, total	ug/L	129	
Benzene	ug/L	<1	<1
Beryllium, total	ug/L	<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	
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	
Cis-1,2-dichloroethylene	ug/L	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Cobalt, total	ug/L	2.1	
Copper, total	ug/L	<4	
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Lead, total	ug/L	<4	
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Nickel, total	ug/L	26.4	
Selenium, total	ug/L	5.2	
Silver, total	ug/L	<4	
Solids, total suspended	mg/L	240	
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
Thallium, total	ug/L	<4	
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	
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	<2	<2
Zinc, total	ug/L	145	

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

Table 9

Analytical Data Summary for MW-14C

Constituents	Units	9/23/2014	3/18/2015
		9/24/2014	3/19/2015
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	<1	<1
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	<5	<5
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
Arsenic, total	ug/L		<4
Barium, total	ug/L		456
Benzene	ug/L	<1	<1
Beryllium, total	ug/L		<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
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
Cis-1,2-dichloroethylene	ug/L	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Cobalt, total	ug/L		<.8
Copper, total	ug/L		<4
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Lead, total	ug/L		<4
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Nickel, total	ug/L		<4
Selenium, total	ug/L		<4
Silver, total	ug/L		<4
Solids, total suspended	mg/L		6
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
Thallium, total	ug/L		<4
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	<2	<2
Zinc, total	ug/L		<8

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

Table 9

Analytical Data Summary for MW-14D

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
(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	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L									<10
Acetophenone	ug/L									<8
Acrolein	ug/L									<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L									<.05
Allyl chloride	ug/L									<1
Alpha-bhc	ug/L									<.05

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

Table 9

Analytical Data Summary for MW-14D

Constituents	6/6/2018 6/11/2018	9/10/2018	3/26/2019	7/17/2019	9/16/2019	3/23/2020 3/24/2020	7/20/2020	9/2/2020	3/8/2021
(3,4)-methylphenol									
1,1,1,2-tetrachloroethane		<1	<5		<1	<1		<1	<1
1,1,1-trichloroethane		<1	<5		<1	<1		<1	<1
1,1,2,2-tetrachloroethane		<1	<5		<1	<1		<1	<1
1,1,2-trichloroethane		<1	<5		<1	<1		<1	<1
1,1-dichloroethane		<1	<5		<1	<1		<1	<1
1,1-dichloroethylene		<1	<5		<1	<1		<1	<1
1,1-dichloropropene									
1,2,3-trichloropropane		<1	<5		<1	<1		<1	<1
1,2,4,5-tetrachlorobenzene									
1,2,4-trichlorobenzene									
1,2-dibromo-3-chloropropane		<1	<5		<1	<5		<5	<5
1,2-dibromoethane		<1	<5		<1	<1		<1	<1
1,2-dichlorobenzene		<1	<5		<1	<1		<1	<1
1,2-dichloroethane		<1	<5		<1	<1		<1	<1
1,2-dichloropropane		<1	<5		<1	<1		<1	<1
1,2-dinitrobenzene									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene		<1	<5		<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)		<5	<25		<5	<5		<5	<5
2-chloronaphthalene									
2-chlorophenol									
2-hexanone (mbk)		<5	<25		<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	<25		<5	<5		<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz(a)anthracene									
Acenaphthene									
Acenaphthylene									
Acetone		<10	<50		<10	<10		<10	<10
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile		<5	<25		<5	<5		<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									

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

Table 9

Analytical Data Summary for MW-14D

Constituents	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	11/28/2023 12/5/2023	3/6/2024	9/18/2024 9/19/2024
(3,4)-methylphenol							<8	
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene							<1	
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene							<8	
1,2,4-trichlorobenzene							<1	
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<1	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene							<8	
1,3,5-trinitrobenzene							<8	
1,3-dichlorobenzene							<1	
1,3-dichloropropane							<1	
1,3-dinitrobenzene							<8	
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone							<8	
1,4-phenylenediamine							<8	
1-naphthylamine							<8	
2,2-dichloropropane							<1	
2,3,4,6-tetrachlorophenol							<8	
2,4,5-t							<.5	
2,4,5-tp (silvex)							<.5	
2,4,5-trichlorophenol							<8	
2,4,6-trichlorophenol							<8	
2,4-d							<2	
2,4-dichlorophenol							<8	
2,4-dimethylphenol							<8	
2,4-dinitrophenol							<8	
2,4-dinitrotoluene							<8	
2,6-dichlorophenol							<8	
2,6-dinitrotoluene							<8	
2-acetylaminofluorene							<8	
2-butanone (mek)	<5	<10	<10	<10	<10	<10	<5	<10
2-chloronaphthalene							<8	
2-chlorophenol							<8	
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene							<8	
2-methylphenol							<8	
2-naphthylamine							<8	
2-nitroaniline							<8	
2-nitrophenol							<8	
3,3'-dichlorobenzidine							<8	
3,3'-dimethylbenzidine							<8	
3-methylcholanthrene							<8	
3-nitroaniline							<8	
4,4'-ddd							<.05	
4,4'-dde							<.05	
4,4'-ddt							<.05	
4,6-dinitro-2-methylphenol							<8	
4-aminobiphenyl							<8	
4-bromophenyl phenyl ether							<8	
4-chloro-3-methylphenol							<8	
4-chloroaniline							<8	
4-chlorophenyl phenyl ether							<8	
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline							<8	
4-nitrophenol							<8	
5-nitro-o-toluidine							<8	
7,12-dimethylbenz(a)anthracene							<8	
Acenaphthene							<8	
Acenaphthylene							<8	
Acetone	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile							<10	
Acetophenone							<8	
Acrolein							<10	
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin							<.05	
Allyl chloride							<1	
Alpha-bhc							<.05	

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

Table 9

Analytical Data Summary for MW-14D

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
Anthracene	ug/L									<8
Antimony, total	ug/L						<2.0	<2.0	<2.0	2.8
Arochlor 1016	ug/L								<.1	<.1
Arochlor 1221	ug/L								<.2	<.2
Arochlor 1232	ug/L								<.2	<.2
Arochlor 1242	ug/L								<.2	<.2
Arochlor 1248	ug/L								<.2	<.2
Arochlor 1254	ug/L								<.1	<.1
Arochlor 1260	ug/L								<.1	<.1
Arsenic, total	ug/L						4.1	5.5	4.1	<4.0
Azobenzene	ug/L								<8	<11
Barium, total	ug/L						24.8	48.1	21.9	24.4
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L								<8	<11
Benzo(a)pyrene	ug/L								<8	<11
Benzo(b)fluoranthene	ug/L								<8	<11
Benzo(g,h,i)perylene	ug/L								<8	<11
Benzo(k)fluoranthene	ug/L								<8	<11
Benzyl alcohol	ug/L								<8	<11
Beryllium, total	ug/L						<4	<4	<4	<4
Beta-bhc	ug/L								<.05	<.05
Bicarbonate, as cacO3	mg/L									
Bis (2-chloroethoxy) methane	ug/L								<8	<11
Bis(2-chloroethyl) ether	ug/L								<8	<11
Bis(2-chloroisopropyl) ether	ug/L								<8	<11
Bis(2-ethylhexyl) phthalate	ug/L								<6	<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	<11
Cadmium, total	ug/L						<.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	<.1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L								<8	<11
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	1.6	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L								<1	<1
Chromium, total	ug/L						<8	<8	<8	<8
Chrysene	ug/L								<8	<11
Cis-1,2-dichloroethylene	ug/L	1.0	8.7	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L						<.8	<.8	<.8	3.1
Copper, total	ug/L						<4	<4	<4	<4
Cyanide, total	mg/L								<.005	<.005
Delta-bhc	ug/L								<.05	<.05
Diallate	ug/L								<8	<11
Dibenzo(a,h)anthracene	ug/L								<8	<11
Dibenzofuran	ug/L								<8	<11
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
Dieldrin	ug/L								<.05	<.05
Diethyl phthalate	ug/L								<8	<11
Dimethoate	ug/L								<.4	<.4
Dimethylphthalate	ug/L								<8	<11
Di-n-butyl phthalate	ug/L								<8	<11
Di-n-octyl phthalate	ug/L								<8	<11
Dinoseb	ug/L								<.5	<.5
Diphenylamine	ug/L								<8	<11
Disulfoton	ug/L								<.4	<.4
Endosulfan i	ug/L								<.05	<.05
Endosulfan ii	ug/L								<.05	<.05
Endosulfan sulfate	ug/L								<.05	<.05
Endrin	ug/L								<.05	<.05
Endrin aldehyde	ug/L								<.05	<.05
Ethane	mg/L									
Ethene	mg/L									
Ethyl methacrylate	ug/L								<10	<10
Ethyl methanesulfonate	ug/L								<8	<11
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L								<.4	<.4
Fluoranthene	ug/L								<8	<11

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

Table 9

Analytical Data Summary for MW-14D

Constituents	6/6/2018 6/11/2018	9/10/2018	3/26/2019	7/17/2019	9/16/2019	3/23/2020 3/24/2020	7/20/2020	9/2/2020	3/8/2021
Anthracene									
Antimony, total	2.4 *	2.2	2.7		3.1	3.0		2.8	2.3
Arochlor 1016									
Arochlor 1221									
Arochlor 1232									
Arochlor 1242									
Arochlor 1248									
Arochlor 1254									
Arochlor 1260									
Arsenic, total		<4.0	<4.0		<4.0	<4.0		<4.0	<4.0
Azobenzene									
Barium, total		24.0	23.5		21.3	18.3		16.7	22.1
Benzene		<1	<5		<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		<4	<4
Beta-bhc									
Bicarbonate, as cacO3						766		812	806
Bis (2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									
Bis(2-chloroisopropyl) ether									
Bis(2-ethylhexyl) phthalate									
Bromochloromethane		<1	<5		<1	<1		<1	<1
Bromodichloromethane		<1	<5		<1	<1		<1	<1
Bromoform		<1	<5		<1	<1		<1	<1
Bromomethane		<1	<5		<1	<1		<1	<1
Butyl benzyl phthalate									
Cadmium, total		<.8	<.8		<.8	<.8		<.8	<.8
Carbon disulfide		<1	<5		<1	<1		<1	<1
Carbon tetrachloride		<1	<5		<1	<1		<1	<1
Chlordane									
Chlorobenzene		<1	<5		<1	<1		<1	<1
Chlorobenzilate									
Chloroethane		<1	<5		<1	<1		<1	<1
Chloroform		<1.0	<5.0		<1.0	<1.0		<1.0	<1.0
Chloromethane		<1	<5		<1	<1		<1	<1
Chloroprene									
Chromium, total		<8	<8		<8	<8		<8	<8
Chrysene									
Cis-1,2-dichloroethylene		<1.0	<5.0		<1.0	<1.0		<1.0	<1.0
Cis-1,3-dichloropropene		<1	<5		<1	<1		<1	<1
Cobalt, total		2.7	4.2		3.9	3.8		2.3	3.0
Copper, total		<4	<4		<4	<4		<4	<4
Cyanide, total									
Delta-bhc									
Diallate									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane		<1	<5		<1	<1		<1	<1
Dibromomethane		<1	<5		<1	<1		<1	<1
Dichlorodifluoromethane									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethylphthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Ethane						<.013		<.010	<.010
Ethene						<.013		<.010	<.010
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene		<1	<5		<1	<1		<1	<1
Famphur									
Fluoranthene									

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

Table 9

Analytical Data Summary for MW-14D

Constituents	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	11/28/2023 12/5/2023	3/6/2024	9/18/2024 9/19/2024
Anthracene							<8	
Antimony, total	2.3	3.1	<2.0	2.1	2.3		2.2	<2.0
Arochlor 1016							<2	
Arochlor 1221							<2	
Arochlor 1232							<2	
Arochlor 1242							<2	
Arochlor 1248							<2	
Arochlor 1254							<2	
Arochlor 1260							<2	
Arsenic, total	<4.0	<4.0	<4.0	<4.0	<4.0		<4.0	<4.0
Azobenzene							<8	
Barium, total	21.4	20.9	22.5	20.1	18.3		17.6	22.6
Benzene	<1	<1	<1	<1	<1		<1	<1
Benzo(a)anthracene							<8	
Benzo(a)pyrene							<8	
Benzo(b)fluoranthene							<8	
Benzo(g,h,i)perylene							<8	
Benzo(k)fluoranthene							<8	
Benzyl alcohol							<8	
Beryllium, total	<4	<4	<4	<4	<4		<4	<4
Beta-bhc							<.05	
Bicarbonate, as cac03		889						
Bis (2-chloroethoxy) methane							<8	
Bis(2-chloroethyl) ether							<8	
Bis(2-chloroisopropyl) ether							<8	
Bis(2-ethylhexyl) phthalate							10	<6
Bromochloromethane	<1	<1	<1	<1	<1		<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1		<1	<1
Bromoform	<1	<1	<1	<1	<1		<1	<1
Bromomethane	<1	<1	<1	<1	<1		<1	<1
Butyl benzyl phthalate							<8	
Cadmium, total	<.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
Chlordane							<.1	
Chlorobenzene	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate							<8	
Chloroethane	<1	<1	<1	<1	<1		<1	<1
Chloroform	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0
Chloromethane	<1	<1	<1	<1	<1		<1	<1
Chloroprene							<1	
Chromium, total	<8	<8	<8	<8	<8		<8	<8
Chrysene							<8	
Cis-1,2-dichloroethylene	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1		<1	<1
Cobalt, total	4.6	.9	8.5	1.5	5.9	6.1	4.7	1.5
Copper, total	<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
Dibromomethane	<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	
Ethane								
Ethene								
Ethyl methacrylate							<10	
Ethyl methanesulfonate							<8	
Ethylbenzene	<1	<1	<1	<1	<1		<1	<1
Famphur							<.4	
Fluoranthene							<8	

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



Table 9

Analytical Data Summary for MW-14D

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
Fluorene	ug/L									<8
Gamma-bhc (lindane)	ug/L									<.05
Heptachlor	ug/L									<.05
Heptachlor epoxide	ug/L									<.05
Hexachlorobenzene	ug/L									<.05
Hexachlorobutadiene	ug/L									<8
Hexachlorocyclopentadiene	ug/L									<8
Hexachloroethane	ug/L									<8
Hexachloropropene	ug/L									<8
Indeno(1,2,3-cd)pyrene	ug/L									<8
Isobutanol	mg/L									<1
Isodrin	ug/L									<8
Isophorone	ug/L									<8
Isosafrole	ug/L									<8
Kepone	ug/L									<8
Lead, total	ug/L						<4		<4	<4
Mercury, total	ug/L									<.5
Methacrylonitrile	ug/L									<1
Methane	mg/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						<4	<4		<4
Nitrobenzene	ug/L									<8
N-nitrosodiethylamine	ug/L									<8
N-nitrosodimethylamine	ug/L									<8
N-nitrosodi-n-butylamine	ug/L									<8
N-nitroso-di-n-propylamine	ug/L									<8
N-nitrosodiphenylamine	ug/L									<8
N-nitrosomethylethylamine	ug/L									<8
N-nitrosopiperidine	ug/L									<8
N-nitrosopyrrolidine	ug/L									<8
O,o,o-triethyl phosphorothioate	ug/L									<.4
O-toluidine	ug/L									<8
Parathion	ug/L									<.4
P-dimethylaminoazobenzene	ug/L									<8
Pentachlorobenzene	ug/L									<8
Pentachloronitrobenzene (pcnb)	ug/L									<8
Pentachlorophenol	ug/L									<8
pH	pH									
Phenacetin	ug/L									<8
Phenanthrene	ug/L									<8
Phenol	ug/L									<8
Phorate	ug/L									<.4
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	58.9
Silver, total	ug/L						<4	<4	<4	<4
Solids, total suspended	mg/L			22						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L									<1.0
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L						<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
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	<8	<8	<8

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

Table 9

Analytical Data Summary for MW-14D

Constituents	6/6/2018 6/11/2018	9/10/2018	3/26/2019	7/17/2019	9/16/2019	3/23/2020 3/24/2020	7/20/2020	9/2/2020	3/8/2021
Fluorene									
Gamma-bhc (lindane)									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total		<4	<4		<4	<4		<4	<4
Mercury, total									
Methacrylonitrile									
Methane						<.009		<.007	<.007
Methapyrilene									
Methoxychlor									
Methyl iodide		<1	<5		<1	<1		<1	<1
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride		<5	<25		<5	<5		<5	<5
Naphthalene									
Nickel, total		<4	<4		<4	<4		<4	<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									
pH						8.2		8.1	7.6
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Pronamide									
Propionitrile									
Pyrene									
Safrole									
Selenium, total	76.8 *	93.3	58.7	44.5	34.5	20.4	14.0	14.0	6.9
Silver, total		<4	<4		<4	<4		<4	<4
Solids, total suspended									
Styrene		<1	<5		<1	<1		<1	<1
Sulfide, total									
Tetrachloroethylene		<1	<5		<1	<1		<1	<1
Thallium, total		<4	<2		<2	<2		<2	<2
Thionazin									
Tin, total									
Toluene		<1	<5		<1	<1		<1	<1
Toxaphene									
Trans-1,2-dichloroethylene		<1	<5		<1	<1		<1	<1
Trans-1,3-dichloropropene		<1	<5		<1	<1		<1	<1
Trans-1,4-dichloro-2-butene		<5	<25		<5	<5		<5	<5
Trichloroethylene		<1	<5		<1	<1		<1	<1
Trichlorofluoromethane		<1	<5		<1	<1		<1	<1
Vanadium, total		<20	<20		<20	<20		<20	<20
Vinyl acetate		<5	<25		<5	<5		<5	<5
Vinyl chloride		<1	<5		<1	<1		<1	<1
Xylenes, total		<2	<10		<2	<2		<2	<2
Zinc, total		<8	<8		<20	<20		<20	<20

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

Table 9

Analytical Data Summary for MW-14D

Constituents	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	11/28/2023 12/5/2023	3/6/2024	9/18/2024 9/19/2024
Fluorene							<8	
Gamma-bhc (lindane)							<.05	
Heptachlor							<.05	
Heptachlor epoxide							<.05	
Hexachlorobenzene							<.05	
Hexachlorobutadiene							<8	
Hexachlorocyclopentadiene							<8	
Hexachloroethane							<8	
Hexachloropropene							<8	
Indeno(1,2,3-cd)pyrene							<8	
Isobutanol							<1	
Isodrin							<8	
Isophorone							<8	
Isosafrole							<8	
Kepone							<8	
Lead, total	<4	<4	<4	<4	<4		<4	<4
Mercury, total							<.5	
Methacrylonitrile							<1	
Methane								
Methapyrilene							<8	
Methoxychlor							<.05	
Methyl iodide	<1	<1	<1	<1	<1		<2	<1
Methyl methacrylate							<1	
Methyl methanesulfonate							<8	
Methyl parathion							<.4	
Methylene chloride	<5	<5	<5	<5	<5		<5	<5
Naphthalene							<8	
Nickel, total	<4	<4	<4	<4	<4		<4	<4
Nitrobenzene							<8	
N-nitrosodiethylamine							<8	
N-nitrosodimethylamine							<8	
N-nitrosodi-n-butylamine							<8	
N-nitroso-di-n-propylamine							<8	
N-nitrosodiphenylamine							<8	
N-nitrosomethylethylamine							<8	
N-nitrosopiperidine							<8	
N-nitrosopyrrolidine							<8	
O,o,o-triethyl phosphorothioate							<.4	
O-toluidine							<8	
Parathion							<.4	
P-dimethylaminoazobenzene							<8	
Pentachlorobenzene							<8	
Pentachloronitrobenzene (pcnb)							<8	
Pentachlorophenol							<8	
pH		7.5						
Phenacetin							<8	
Phenanthrene							<8	
Phenol							<8	
Phorate							<.4	
Pronamide							<8	
Propionitrile							<10	
Pyrene							<8	
Safrole							<8	
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0		<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4		<4	<4
Solids, total suspended								
Styrene	<1	<1	<1	<1	<1		<1	<1
Sulfide, total							<1	
Tetrachloroethylene	<1	<1	<1	<1	<1		<1	<1
Thallium, total	<2	<2	<2	<2	<2		<2	<2
Thionazin							<.4	
Tin, total							<20	
Toluene	<1	<1	<1	<1	<1		<1	<1
Toxaphene							<.2	
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1		<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1		<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5		<5	<5
Trichloroethylene	<1	<1	<1	<1	<1		<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1		<1	<1
Vanadium, total	<20	<20	<20	<20	<20		<20	<20
Vinyl acetate	<5	<5	<5	<5	<5		<5	<5
Vinyl chloride	<1	<1	<1	<1	<1		<1	<1
Xylenes, total	<2	<2	<2	<2	<2		<2	<2
Zinc, total	<20	<20	<20	<20	<20		<20	<20

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

Table 9

Analytical Data Summary for MW-15

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016	11/9/2016	3/9/2017
(3,4)-methylphenol	ug/L									31
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	<10.0	11.3	<10.0	<10.0	<10.0		<10.0		10.5
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

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

Table 9

Analytical Data Summary for MW-15

Constituents	6/6/2017	9/14/2017	12/13/2017	3/12/2018 3/13/2018
(3,4)-methylphenol	<10			<8
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
1,1-dichloropropene				<1
1,2,3-trichloropropane		<1		<1
1,2,4,5-tetrachlorobenzene				<8
1,2,4-trichlorobenzene				<1
1,2-dibromo-3-chloropropane		<1		<1
1,2-dibromoethane		<1		<1
1,2-dichlorobenzene		<1		<1
1,2-dichloroethane		<1		<1
1,2-dichloropropane		<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
1,4-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
2-chloronaphthalene				<8
2-chlorophenol				<8
2-hexanone (mbk)		<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
4-nitroaniline				<8
4-nitrophenol				<8
5-nitro-o-toluidine				<8
7,12-dimethylbenz(a)anthracene				<8
Acenaphthene				<8
Acenaphthylene				<8
Acetone	<10.0	18.2		<10.0
Acetonitrile				<10
Acetophenone				<8
Acrolein				<10
Acrylonitrile		<5		<5
Aldrin				<.05
Allyl chloride				<1
Alpha-bhc				<.05

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

Table 9

Analytical Data Summary for MW-15

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016	11/9/2016	3/9/2017
Anthracene	ug/L									<8
Antimony, total	ug/L	<2	<2	<2	<2	<2		<2		<2
Arochlor 1016	ug/L									<1
Arochlor 1221	ug/L									<2
Arochlor 1232	ug/L									<2
Arochlor 1242	ug/L									<2
Arochlor 1248	ug/L									<2
Arochlor 1254	ug/L									<1
Arochlor 1260	ug/L									<1
Arsenic, total	ug/L	9.1	7.6	5.0	<4.0	10.7		4.7		18.4
Azobenzene	ug/L									<8
Barium, total	ug/L	610	620	683	304	842	338	284		1210
Benzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		1.7
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									12
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		1.3	<.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	<1	<1	<1	<1	<1		<1		<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1		<1		<1
Cobalt, total	ug/L	<4.0	1.5	1.0	<.8	<.8		<.8		1.9
Copper, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0		6.3		<4.0
Cyanide, total	mg/L									.006
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

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

Table 9

Analytical Data Summary for MW-15

Constituents	6/6/2017	9/14/2017	12/13/2017	3/12/2018 3/13/2018
Anthracene				<8
Antimony, total		<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		6.9		5.0
Azobenzene				<8
Barium, total	236	889	777	623
Benzene	<1.0	1.3		<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
Beta-bhc				<.05
Bis (2-chloroethoxy) methane				<8
Bis(2-chloroethyl) ether				<8
Bis(2-chloroisopropyl) ether				<8
Bis(2-ethylhexyl) phthalate	<6			<6
Bromochloromethane		<1		<1
Bromodichloromethane		<1		<1
Bromoform		<1		<1
Bromomethane		<1		<1
Butyl benzyl phthalate				<8
Cadmium, total		<.8		<.8
Carbon disulfide		<1		<1
Carbon tetrachloride		<1		<1
Chlordane				<.1
Chlorobenzene		<1		<1
Chlorobenzilate				<8
Chloroethane		<1		<1
Chloroform		<1		<1
Chloromethane		<1		<1
Chloroprene				<1
Chromium, total		<8		<8
Chrysene				<8
Cis-1,2-dichloroethylene		<1		<1
Cis-1,3-dichloropropene		<1		<1
Cobalt, total		1.2		<2.0
Copper, total		<4.0		<4.0
Cyanide, total				<.005
Delta-bhc				<.05
Diallate				<8
Dibenzo(a,h)anthracene				<8
Dibenzofuran				<8
Dibromochloromethane		<1		<1
Dibromomethane		<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
Famphur				<.4
Fluoranthene				<8
Fluorene				<8
Gamma-bhc (lindane)				<.05
Heptachlor				<.05

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

Table 9

Analytical Data Summary for MW-15

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016	11/9/2016	3/9/2017
Heptachlor epoxide	ug/L									<.05
Hexachlorobenzene	ug/L									<.05
Hexachlorobutadiene	ug/L									<8
Hexachlorocyclopentadiene	ug/L									<8
Hexachloroethane	ug/L									<8
Hexachloropropene	ug/L									<8
Indeno(1,2,3-cd)pyrene	ug/L									<8
Isobutanol	mg/L									<1
Isodrin	ug/L									<8
Isophorone	ug/L									<8
Isosafrole	ug/L									<8
Kepone	ug/L									<8
Lead, total	ug/L	<4	<4	<4	<4	<4		<4		<4
Mercury, total	ug/L									<.5
Methacrylonitrile	ug/L									<1
Methapyrilene	ug/L									<8
Methoxychlor	ug/L									<.05
Methyl iodide	ug/L	<1	<1	<1	<1	<1		<1		<1
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	30.9	5.5	9.3	<4.0	5.2		<4.0		27.8
Nitrobenzene	ug/L									<8
N-nitrosodiethylamine	ug/L									<8
N-nitrosodimethylamine	ug/L									<8
N-nitrosodi-n-butylamine	ug/L									<8
N-nitroso-di-n-propylamine	ug/L									<8
N-nitrosodiphenylamine	ug/L									<8
N-nitrosomethylethylamine	ug/L									<8
N-nitrosopiperidine	ug/L									<8
N-nitrosopyrrolidine	ug/L									<8
O,o,o-triethyl phosphorothioate	ug/L									<.4
O-toluidine	ug/L									<8
Parathion	ug/L									<.4
P-dimethylaminoazobenzene	ug/L									<8
Pentachlorobenzene	ug/L									<8
Pentachloronitrobenzene (pcnb)	ug/L									<8
Pentachlorophenol	ug/L									<8
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		415	210						
Styrene	ug/L	<1	<1	<1	<1	<1		<1		<1
Sulfide, total	mg/L									<1.00
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	<2.0	<2.0	<2.0	<2.0	<2.0		<2.0		<2.0
Zinc, total	ug/L	110.0	198.0	20.5	124.0	41.5		276.0	12.7	22.9

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



Table 9

Analytical Data Summary for MW-15

Constituents	6/6/2017	9/14/2017	12/13/2017	3/12/2018 3/13/2018
Heptachlor epoxide				<.05
Hexachlorobenzene				<.05
Hexachlorobutadiene				<8
Hexachlorocyclopentadiene				<8
Hexachloroethane				<8
Hexachloropropene				<8
Indeno(1,2,3-cd)pyrene				<8
Isobutanol				<1
Isodrin				<8
Isophorone				<8
Isosafrole				<8
Kepone				<8
Lead, total		<4		<4
Mercury, total				<.5
Methacrylonitrile				<1
Methapyrilene				<8
Methoxychlor				<.05
Methyl iodide		<1		<1
Methyl methacrylate				<1
Methyl methanesulfonate				<8
Methyl parathion				<.4
Methylene chloride		<5		<5
Naphthalene				<8
Nickel, total	<4.0	11.2		6.6
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
Silver, total		<4		<4
Solids, total suspended				
Styrene		<1		<1
Sulfide, total				.14
Tetrachloroethylene		<1		<1
Thallium, total		<4		<4
Thionazin				<.4
Tin, total				<20
Toluene	<1	<1		<1
Toxaphene				<.2
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		3.3		<2.0
Zinc, total		14.3		9.7

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

Table 9

Analytical Data Summary for MW-15R

Constituents	Units	6/5/2019	9/16/2019	12/2/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022
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		<5	<5	<5	<5	<5	<5
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	<10	<10
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	<10		<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5		<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2		<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	6.8	28.2		8.9	30.0	62.1	54.7	71.2	51.1
Barium, total	ug/L	412	565	681	579	626	715	619	1320	727
Benzene	ug/L	<1	<1		<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4		<4	<4	<4	<4	<4	<4
Bicarbonate, as cacO3	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
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	<.8	.9		1.0	1.3	1.2	1.3	1.5	3.6
Copper, total	ug/L	<4	<4		<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1	<1		<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1		<1	<1	<1	<1	<1	<1
Ethane	mg/L									
Ethene	mg/L									
Ethylbenzene	ug/L	<1	<1		<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4		<4	<4	<4	<4	<4	<4
Methane	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
Nickel, total	ug/L	<4.0	5.9		<4.0	<4.0	4.6	<4.0	16.0	4.2
pH	pH									
Selenium, total	ug/L	<4	<4		<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4		<4	<4	<4	<4	<4	<4
Styrene	ug/L	<1	<1		<1	<1	<1	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1		<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<2	<2		<2	<2	<2	<2	<2	<2
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	<20		<20	<20	<20	<20	<20	<20

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

Table 9

Analytical Data Summary for MW-15R

Constituents	12/1/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
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	46.2	51.1	70.3	57.2	70.4
Barium, total		876	743	673	686
Benzene		<1	<1	<1	<1
Beryllium, total		<4	<4	<4	<4
Bicarbonate, as cacO3			620	541	696
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		1.3	1.2	1.1	.9
Copper, total		<4	<4	<4	<4
Dibromochloromethane		<1	<1	<1	<1
Dibromomethane		<1	<1	<1	<1
Ethane					<.005
Ethene					<.005
Ethylbenzene		<1	<1	<1	<1
Lead, total		<4	<4	<4	<4
Methane					14
Methyl iodide		<1	<1	<1	<1
Methylene chloride		<5	<5	<5	<5
Nickel, total		6.8	<4.0	<4.0	<4.0
pH			6.6	6.6	6.7
Selenium, total		<4	<4	<4	<4
Silver, total		<4	<4	<4	<4
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	<20	<20	<20

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

**Table 9**

**Analytical Data Summary for MW-17**

Constituents	Units	3/28/2014	9/23/2014 9/24/2014
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	<1	<1
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	<5	<5
2-hexanone (mbk)	ug/L	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5
Acetone	ug/L	16.3	<10.0
Acrylonitrile	ug/L	<5	<5
Antimony, total	ug/L	<2	<2
Arsenic, total	ug/L	<4	<4
Barium, total	ug/L	437	328
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	1.7	<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	3.4	1.1
Cis-1,3-dichloropropene	ug/L	<1	<1
Cobalt, total	ug/L	<4.0	1.8
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	16.1	<4.0
Selenium, total	ug/L	<4	<4
Silver, total	ug/L	<4	<4
Solids, total suspended	mg/L		457
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
Thallium, total	ug/L	<4	<4
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	<16

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

Table 9

Analytical Data Summary for MW-17R

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	12/13/2017
(3,4)-methylphenol	ug/L				<8		<8		
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L				<1	<1	<1		
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L				<8	<8	<8		
1,2,4-trichlorobenzene	ug/L				<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
1,2-dinitrobenzene	ug/L				<8	<8	<8		
1,3,5-trinitrobenzene	ug/L				<1	<1	<1		
1,3-dichlorobenzene	ug/L				<1	<1	<1		
1,3-dichloropropane	ug/L				<1	<1	<1		
1,3-dinitrobenzene	ug/L				<8	<8	<8		
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L				<8	<8	<8		
1,4-phenylenediamine	ug/L				<8	<8	<8		
1-naphthylamine	ug/L				<8	<8	<8		
2,2-dichloropropane	ug/L				<1	<1	<1		
2,3,4,6-tetrachlorophenol	ug/L				<8	<8	<8		
2,4,5-t	ug/L				<5	<5	<5		
2,4,5-tp (silvex)	ug/L				<5	<5	<5		
2,4,5-trichlorophenol	ug/L				<8	<8	<8		
2,4,6-trichlorophenol	ug/L				<8	<8	<8		
2,4-d	ug/L				<2	<2	<2		
2,4-dichlorophenol	ug/L				<8	<8	<8		
2,4-dimethylphenol	ug/L				<8	<8	<8		
2,4-dinitrophenol	ug/L				<8	<8	<8		
2,4-dinitrotoluene	ug/L				<8	<8	<8		
2,6-dichlorophenol	ug/L				<8	<8	<8		
2,6-dinitrotoluene	ug/L				<8	<8	<8		
2-acetylaminofluorene	ug/L				<8	<8	<8		
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene	ug/L				<8	<8	<8		
2-chlorophenol	ug/L				<8	<8	<8		
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L				<8	<8	<8		
2-methylphenol	ug/L				<8	<8	<8		
2-naphthylamine	ug/L				<8	<8	<8		
2-nitroaniline	ug/L				<8	<8	<8		
2-nitrophenol	ug/L				<8	<8	<8		
3,3'-dichlorobenzidine	ug/L				<8	<8	<8		
3,3'-dimethylbenzidine	ug/L				<8	<8	<8		
3-methylcholanthrene	ug/L				<8	<8	<8		
3-nitroaniline	ug/L				<8	<8	<8		
4,4'-ddd	ug/L				<.05	<.05	<.05		
4,4'-dde	ug/L				<.05	<.05	<.05		
4,4'-ddt	ug/L				<.05	<.05	<.05		
4,6-dinitro-2-methylphenol	ug/L				<8	<8	<8		
4-aminobiphenyl	ug/L				<8	<8	<8		
4-bromophenyl phenyl ether	ug/L				<8	<8	<8		
4-chloro-3-methylphenol	ug/L				<8	<8	<8		
4-chloroaniline	ug/L				<8	<8	<8		
4-chlorophenyl phenyl ether	ug/L				<8	<8	<8		
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L				<8	<8	<8		
4-nitrophenol	ug/L				<8	<8	<8		
5-nitro-o-toluidine	ug/L				<8	<8	<8		
7,12-dimethylbenz(a)anthracene	ug/L				<8	<8	<8		
Acenaphthene	ug/L				<8	<8	<8		
Acenaphthylene	ug/L				<8	<8	<8		
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	13.3	
Acetonitrile	ug/L				<10	<10	<10		
Acetophenone	ug/L				<8	<8	<8		
Acrolein	ug/L				<10	<10	<10		
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L				<.05	<.05	<.05		
Allyl chloride	ug/L				<1	<1	<1		
Alpha-bhc	ug/L				<.05	<.05	<.05		

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

Table 9

Analytical Data Summary for MW-17R

Constituents	3/12/2018 3/13/2018	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022
(3,4)-methylphenol									<8
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene									<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene									<8
1,2,4-trichlorobenzene									<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<5	<5	<5	<5	<1
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	<5	<5	<5
2-chloronaphthalene									<8
2-chlorophenol									<8
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene									<8
2-methylphenol									<8
2-naphthylamine									<8
2-nitroaniline									<8
2-nitrophenol									<8
3,3'-dichlorobenzidine									<8
3,3'-dimethylbenzidine									<8
3-methylcholanthrene									<8
3-nitroaniline									<8
4,4'-ddd									<.05
4,4'-dde									<.05
4,4'-ddt									<.05
4,6-dinitro-2-methylphenol									<8
4-aminobiphenyl									<8
4-bromophenyl phenyl ether									<8
4-chloro-3-methylphenol									<8
4-chloroaniline									<8
4-chlorophenyl phenyl ether									<8
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline									<8
4-nitrophenol									<8
5-nitro-o-toluidine									<8
7,12-dimethylbenz(a)anthracene									<8
Acenaphthene									<8
Acenaphthylene									<8
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile									<10
Acetophenone									<8
Acrolein									<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin									<.05
Allyl chloride									<1
Alpha-bhc									<.05

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

Table 9

Analytical Data Summary for MW-17R

Constituents	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
(3,4)-methylphenol					
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1
1,1-dichloropropene					
1,2,3-trichloropropane	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene					
1,2,4-trichlorobenzene					
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1
1,2-dinitrobenzene					
1,3,5-trinitrobenzene					
1,3-dichlorobenzene					
1,3-dichloropropane					
1,3-dinitrobenzene					
1,4-dichlorobenzene	<1	<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	<10
2-chloronaphthalene					
2-chlorophenol					
2-hexanone (mbk)	<5	<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	<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	<10.0
Acetonitrile					
Acetophenone					
Acrolein					
Acrylonitrile	<5	<5	<5	<5	<5
Aldrin					
Allyl chloride					
Alpha-bhc					

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

Table 9

Analytical Data Summary for MW-17R

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	12/13/2017
Anthracene	ug/L				<8		<8		
Antimony, total	ug/L	<2			<2	<2	<2	<2	
Arochlor 1016	ug/L				<.1		<.1		
Arochlor 1221	ug/L				<.2		<.2		
Arochlor 1232	ug/L				<.2		<.2		
Arochlor 1242	ug/L				<.2		<.2		
Arochlor 1248	ug/L				<.2		<.2		
Arochlor 1254	ug/L				<.1		<.1		
Arochlor 1260	ug/L				<.1		<.1		
Arsenic, total	ug/L	<4			<4	<4	<4	<4	
Azobenzene	ug/L				<8		<8		
Barium, total	ug/L	344			378	369	369	411	
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Benzo(a)anthracene	ug/L				<8		<8		
Benzo(a)pyrene	ug/L				<8		<8		
Benzo(b)fluoranthene	ug/L				<8		<8		
Benzo(g,h,i)perylene	ug/L				<8		<8		
Benzo(k)fluoranthene	ug/L				<8		<8		
Benzyl alcohol	ug/L				<8		<8		
Beryllium, total	ug/L	<4			<4	<4	<4	<4	
Beta-bhc	ug/L				<.05		<.05		
Bis (2-chloroethoxy) methane	ug/L				<8		<8		
Bis(2-chloroethyl) ether	ug/L				<8		<8		
Bis(2-chloroisopropyl) ether	ug/L				<8		<8		
Bis(2-ethylhexyl) phthalate	ug/L				<8		<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		<8		
Cadmium, total	ug/L	<.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		<.1		
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Chlorobenzilate	ug/L				<8		<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		<1		
Chromium, total	ug/L	<8			<8	<8	<8	<8	
Chrysene	ug/L				<8		<8		
Cis-1,2-dichloroethylene	ug/L	1.9	6.1	3.6	3.7	2.6	6.0	2.7	
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Cobalt, total	ug/L	.9			1.2	1.5	1.1	<.8	
Copper, total	ug/L	<4			<4	<4	<4	<4	
Cyanide, total	mg/L				<.005		<.005		
Delta-bhc	ug/L				<.05		<.05		
Diallate	ug/L				<8		<8		
Dibenzo(a,h)anthracene	ug/L				<8		<8		
Dibenzofuran	ug/L				<8		<8		
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	
Dichlorodifluoromethane	ug/L				<1		<1		
Dieldrin	ug/L				<.05		<.05		
Diethyl phthalate	ug/L				<8		<8		
Dimethoate	ug/L				<.4		<.4		
Dimethylphthalate	ug/L				<8		<8		
Di-n-butyl phthalate	ug/L				<8		<8		
Di-n-octyl phthalate	ug/L				<8		<8		
Dinoseb	ug/L				<.5		<.5		
Diphenylamine	ug/L				<8		<8		
Disulfoton	ug/L				<.4		<.4		
Endosulfan i	ug/L				<.05		<.05		
Endosulfan ii	ug/L				<.05		<.05		
Endosulfan sulfate	ug/L				<.05		<.05		
Endrin	ug/L				<.05		<.05		
Endrin aldehyde	ug/L				<.05		<.05		
Ethyl methacrylate	ug/L				<10		<10		
Ethyl methanesulfonate	ug/L				<8		<8		
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Famphur	ug/L				<.4		<.4		
Fluoranthene	ug/L				<8		<8		
Fluorene	ug/L				<8		<8		
Gamma-bhc (lindane)	ug/L				<.05		<.05		
Heptachlor	ug/L				<.05		<.05		

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



Table 9

Analytical Data Summary for MW-17R

Constituents	3/12/2018 3/13/2018	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022
Anthracene									<8
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016									<1
Arochlor 1221									<2
Arochlor 1232									<2
Arochlor 1242									<2
Arochlor 1248									<2
Arochlor 1254									<1
Arochlor 1260									<1
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Azobenzene									<8
Barium, total	408	406	430	533	429	398	416	442	446
Benzene	<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
Beta-bhc									<.05
Bis (2-chloroethoxy) methane									<8
Bis(2-chloroethyl) ether									<8
Bis(2-chloroisopropyl) ether									<8
Bis(2-ethylhexyl) phthalate									13
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	<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	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene									<8
Cis-1,2-dichloroethylene	3.5	2.7	3.4	4.9	4.3	3.1	3.3	4.0	4.1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<2.0	.8	.9	<.8	1.1	1.1	.9	1.5	2.1
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

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

Table 9

Analytical Data Summary for MW-17R

Constituents	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Anthracene					
Antimony, total	<2	<2	<2	<2	<2
Arochlor 1016					
Arochlor 1221					
Arochlor 1232					
Arochlor 1242					
Arochlor 1248					
Arochlor 1254					
Arochlor 1260					
Arsenic, total	<4	<4	<4	<4	<4
Azobenzene					
Barium, total	587	446	422	432	435
Benzene	<1	<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	<4
Beta-bhc					
Bis (2-chloroethoxy) methane					
Bis(2-chloroethyl) ether					
Bis(2-chloroisopropyl) ether					
Bis(2-ethylhexyl) phthalate	<6				
Bromochloromethane	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1
Butyl benzyl phthalate					
Cadmium, total	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1
Chlordane					
Chlorobenzene	<1	<1	<1	<1	<1
Chlorobenzilate					
Chloroethane	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1
Chloroprene					
Chromium, total	<8	<8	<8	<8	<8
Chrysene					
Cis-1,2-dichloroethylene	3.4	2.2	3.7	1.1	1.6
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1
Cobalt, total	5.6	1.6	1.8	4.0	4.1
Copper, total	<4	<4	<4	<4	<4
Cyanide, total					
Delta-bhc					
Diallate					
Dibenzo(a,h)anthracene					
Dibenzofuran					
Dibromochloromethane	<1	<1	<1	<1	<1
Dibromomethane	<1	<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	<1
Famphur					
Fluoranthene					
Fluorene					
Gamma-bhc (lindane)					
Heptachlor					

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

Table 9

Analytical Data Summary for MW-17R

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	12/13/2017
Heptachlor epoxide	ug/L				<.05		<.05		
Hexachlorobenzene	ug/L				<.05		<.05		
Hexachlorobutadiene	ug/L				<8		<8		
Hexachlorocyclopentadiene	ug/L				<8		<8		
Hexachloroethane	ug/L				<8		<8		
Hexachloropropene	ug/L				<8		<8		
Indeno(1,2,3-cd)pyrene	ug/L				<8		<8		
Isobutanol	mg/L				<1		<1		
Isodrin	ug/L				<8		<8		
Isophorone	ug/L				<8		<8		
Isosafrole	ug/L				<8		<8		
Kepone	ug/L				<8		<8		
Lead, total	ug/L	<4			<4	<4	<4	<4	
Mercury, total	ug/L				<.5		<.5		
Methacrylonitrile	ug/L				<1		<1		
Methapyrilene	ug/L				<8		<8		
Methoxychlor	ug/L				<.05		<.05		
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	
Methyl methacrylate	ug/L				<1		<1		
Methyl methanesulfonate	ug/L				<8		<8		
Methyl parathion	ug/L				<.4		<.4		
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	
Naphthalene	ug/L				<8		<8		
Nickel, total	ug/L	14.9			16.3	15.2	16.6	20.1	17.2
Nitrobenzene	ug/L				<8		<8		
N-nitrosodiethylamine	ug/L				<8		<8		
N-nitrosodimethylamine	ug/L				<8		<8		
N-nitrosodi-n-butylamine	ug/L				<8		<8		
N-nitroso-di-n-propylamine	ug/L				<8		<8		
N-nitrosodiphenylamine	ug/L				<8		<8		
N-nitrosomethylethylamine	ug/L				<8		<8		
N-nitrosopiperidine	ug/L				<8		<8		
N-nitrosopyrrolidine	ug/L				<8		<8		
O,o,o-triethyl phosphorothioate	ug/L				<.4		<.4		
O-toluidine	ug/L				<8		<8		
Parathion	ug/L				<.4		<.4		
P-dimethylaminoazobenzene	ug/L				<8		<8		
Pentachlorobenzene	ug/L				<8		<8		
Pentachloronitrobenzene (pcnb)	ug/L				<8		<8		
Pentachlorophenol	ug/L				<8		<8		
Phenacetin	ug/L				<8		<8		
Phenanthrene	ug/L				<8		<8		
Phenol	ug/L				<8		<8		
Phorate	ug/L				<.4		<.4		
Pronamide	ug/L				<8		<8		
Propionitrile	ug/L				<10		<10		
Pyrene	ug/L				<8		<8		
Safrole	ug/L				<8		<8		
Selenium, total	ug/L	<4			<4	<4	<4	<4	
Silver, total	ug/L	<4			<4	<4	<4	<4	
Solids, total suspended	mg/L	1060	139						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Sulfide, total	mg/L				<.1		<.1		
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Thallium, total	ug/L	<4			<4	<4	<4	<4	
Thionazin	ug/L				<.4		<.4		
Tin, total	ug/L				<20		<20		
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Toxaphene	ug/L				<.2		<.2		
Trans-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
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	
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	19.8			<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-17R

Constituents	3/12/2018 3/13/2018	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022
Heptachlor epoxide									<.05
Hexachlorobenzene									<.05
Hexachlorobutadiene									<8
Hexachlorocyclopentadiene									<8
Hexachloroethane									<8
Hexachloropropene									<8
Indeno(1,2,3-cd)pyrene									<8
Isobutanol									<1
Isodrin									<8
Isophorone									<8
Isosafrole									<8
Kepone									<8
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total									<.5
Methacrylonitrile									<1
Methapyrilene									<8
Methoxychlor									<.05
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<2
Methyl methacrylate									<1
Methyl methanesulfonate									<8
Methyl parathion									<4
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene									<8
Nickel, total	17.6	18.1	20.3	21.4	19.2	19.0	20.8	21.8	22.3
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									<1
Tetrachloroethylene	<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
Toxaphene									<2
Trans-1,2-dichloroethylene	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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	13.9	<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-17R

Constituents	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Heptachlor epoxide					
Hexachlorobenzene					
Hexachlorobutadiene					
Hexachlorocyclopentadiene					
Hexachloroethane					
Hexachloropropene					
Indeno(1,2,3-cd)pyrene					
Isobutanol					
Isodrin					
Isophorone					
Isosafrole					
Kepone					
Lead, total	<4	<4	<4	<4	<4
Mercury, total					
Methacrylonitrile					
Methapyrilene					
Methoxychlor					
Methyl iodide	<1	<1	<1	<1	<1
Methyl methacrylate					
Methyl methanesulfonate					
Methyl parathion					
Methylene chloride	<5	<5	<5	<5	<5
Naphthalene					
Nickel, total	28.9	22.2	21.4	18.9	24.2
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	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4
Solids, total suspended					
Styrene	<1	<1	<1	<1	<1
Sulfide, total					
Tetrachloroethylene	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2
Thionazin					
Tin, total					
Toluene	<1	<1	<1	<1	<1
Toxaphene					
Trans-1,2-dichloroethylene	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-18

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	6/17/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	9.9	<2.0	<2.0	<2.0	<2.0	<2.0	2.6	<2.0	<2.0
Arsenic, total	ug/L	136.0	23.0	38.7	30.7	53.7	26.8	97.7	33.2	34.0
Barium, total	ug/L	658	407	459	436	377	392	486	320	465
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	4.8	<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	<8.0	<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	<4.0	.8	1.2	1.3	1.4	.9	2.1	3.5	1.9
Copper, total	ug/L	11.2	<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	4.3	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
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	22.9	5.0	5.4	6.3	10.3	6.8	12.7	<4.0	5.3
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	<4
Solids, total suspended	mg/L		162		40					
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	<20.0	<20.0	<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	<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	118.0	11.9	11.3	<8.0	23.7	13.5	18.8	8.7	<8.0

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

Table 9

Analytical Data Summary for MW-18

Constituents	7/12/2017	9/14/2017	12/13/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020
1,1,1,2-tetrachloroethane		<1		<1	<1	<5	<1	<1	<1
1,1,1-trichloroethane		<1		<1	<1	<5	<1	<1	<1
1,1,2,2-tetrachloroethane		<1		<1	<1	<5	<1	<1	<1
1,1,2-trichloroethane		<1		<1	<1	<5	<1	<1	<1
1,1-dichloroethane		<1		<1	<1	<5	<1	<1	<1
1,1-dichloroethylene		<1		<1	<1	<5	<1	<1	<1
1,2,3-trichloropropane		<1		<1	<1	<5	<1	<1	<1
1,2-dibromo-3-chloropropane		<1		<1	<1	<5	<1	<5	<5
1,2-dibromoethane		<1		<1	<1	<5	<1	<1	<1
1,2-dichlorobenzene		<1		<1	<1	<5	<1	<1	<1
1,2-dichloroethane		<1		<1	<1	<5	<1	<1	<1
1,2-dichloropropane		<1		<1	<1	<5	<1	<1	<1
1,4-dichlorobenzene		<1		<1	<1	<5	<1	<1	<1
2-butanone (mek)		<5		<5	<5	<25	<5	<5	<5
2-hexanone (mbk)		<5		<5	<5	<25	<5	<5	<5
4-methyl-2-pentanone (mibk)		<5		<5	<5	<25	<5	<5	<5
Acetone		<10		<10	<10	<50	<10	<10	<10
Acrylonitrile		<5		<5	<5	<25	<5	<5	<5
Antimony, total		<2.0		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	22.3	8.3	7.2	11.6	11.4	26.1	13.0	10.7	14.3
Barium, total		452		410	374	352	559	330	478
Benzene		<1		<1	<1	<5	<1	<1	<1
Beryllium, total		<4		<4	<4	<4	<4	<4	<4
Bromochloromethane		<1		<1	<1	<5	<1	<1	<1
Bromodichloromethane		<1		<1	<1	<5	<1	<1	<1
Bromoform		<1		<1	<1	<5	<1	<1	<1
Bromomethane		<1		<1	<1	<5	<1	<1	<1
Cadmium, total		1.3		<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide		<1		<1	<1	<5	<1	<1	<1
Carbon tetrachloride		<1		<1	<1	<5	<1	<1	<1
Chlorobenzene		<1		<1	<1	<5	<1	<1	<1
Chloroethane		<1		<1	<1	<5	<1	<1	<1
Chloroform		<1		<1	<1	<5	<1	<1	<1
Chloromethane		<1		<1	<1	<5	<1	<1	<1
Chromium, total		10.4		<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Cis-1,2-dichloroethylene		<1		<1	<1	<5	<1	<1	<1
Cis-1,3-dichloropropene		<1		<1	<1	<5	<1	<1	<1
Cobalt, total		3.1		<2.0	.9	1.6	1.0	<.8	.8
Copper, total		6.3		<4.0	5.2	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane		<1		<1	<1	<5	<1	<1	<1
Dibromomethane		<1		<1	<1	<5	<1	<1	<1
Ethylbenzene		<1		<1	<1	<5	<1	<1	<1
Lead, total		<4.0		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Methyl iodide		<1		<1	<1	<5	<1	<1	<1
Methylene chloride		<5		<5	<5	<25	<5	<5	<5
Nickel, total		16.1		<4.0	4.4	7.2	4.7	4.4	<4.0
Selenium, total		<4.0		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total		<4		<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene		<1		<1	<1	<5	<1	<1	<1
Tetrachloroethylene		<1		<1	<1	<5	<1	<1	<1
Thallium, total		<4		<4	<4	<2	<2	<2	<2
Toluene		<1		<1	<1	<5	<1	<1	<1
Trans-1,2-dichloroethylene		<1		<1	<1	<5	<1	<1	<1
Trans-1,3-dichloropropene		<1		<1	<1	<5	<1	<1	<1
Trans-1,4-dichloro-2-butene		<5		<5	<5	<25	<5	<5	<5
Trichloroethylene		<1		<1	<1	<5	<1	<1	<1
Trichlorofluoromethane		<1		<1	<1	<5	<1	<1	<1
Vanadium, total		30.7		<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Vinyl acetate		<5		<5	<5	<25	<5	<5	<5
Vinyl chloride		<1		<1	<1	<5	<1	<1	<1
Xylenes, total		<2		<2	<2	<10	<2	<2	<2
Zinc, total		53.3		<8.0	27.3	13.7	20.6	<20.0	<20.0

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

Table 9

Analytical Data Summary for MW-18

Constituents	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	9/18/2024 9/19/2024
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1		
1,1,1-trichloroethane	<1	<1	<1	<1	<1		
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1		
1,1,2-trichloroethane	<1	<1	<1	<1	<1		
1,1-dichloroethane	<1	<1	<1	<1	<1		
1,1-dichloroethylene	<1	<1	<1	<1	<1		
1,2,3-trichloropropane	<1	<1	<1	<1	<1		
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5		
1,2-dibromoethane	<1	<1	<1	<1	<1		
1,2-dichlorobenzene	<1	<1	<1	<1	<1		
1,2-dichloroethane	<1	<1	<1	<1	<1		
1,2-dichloropropane	<1	<1	<1	<1	<1		
1,4-dichlorobenzene	<1	<1	<1	<1	<1		
2-butanone (mek)	<5	<5	<10	<10	<10		
2-hexanone (mbk)	<5	<5	<5	<5	<5		
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5		
Acetone	<10	<10	<10	<10	<10		
Acrylonitrile	<5	<5	<5	<5	<5		
Antimony, total	<2.0	<2.0	2.1	<2.0	4.2	5.5	2.4
Arsenic, total	14.2	15.3	26.8	34.0	79.4	26.8	4.8
Barium, total	463	499	479	551	655	509	477
Benzene	<1	<1	<1	<1	<1		
Beryllium, total	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1		
Bromodichloromethane	<1	<1	<1	<1	<1		
Bromoform	<1	<1	<1	<1	<1		
Bromomethane	<1	<1	<1	<1	<1		
Cadmium, total	<8	<8	1.3	1.1	3.9	1.8	2.5
Carbon disulfide	<1	<1	<1	<1	<1		
Carbon tetrachloride	<1	<1	<1	<1	<1		
Chlorobenzene	<1	<1	<1	<1	<1		
Chloroethane	<1	<1	<1	<1	<1		
Chloroform	<1	<1	<1	<1	<1		
Chloromethane	<1	<1	<1	<1	<1		
Chromium, total	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1		
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1		
Cobalt, total	1.1	1.7	.7	7.2	2.9	2.2	2.3
Copper, total	<4.0	<4.0	6.7	12.0	9.9	5.9	4.7
Dibromochloromethane	<1	<1	<1	<1	<1		
Dibromomethane	<1	<1	<1	<1	<1		
Ethylbenzene	<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		
Methylene chloride	<5	<5	<5	<5	<5		
Nickel, total	<4.0	10.7	8.4	11.3	23.8	14.0	33.6
Selenium, total	<4.0	<4.0	5.1	8.7	16.2	8.0	8.9
Silver, total	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended							
Styrene	<1	<1	<1	<1	<1		
Tetrachloroethylene	<1	<1	<1	<1	<1		
Thallium, total	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1		
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1		
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1		
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5		
Trichloroethylene	<1	<1	<1	<1	<1		
Trichlorofluoromethane	<1	<1	<1	<1	<1		
Vanadium, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Vinyl acetate	<5	<5	<5	<5	<5		
Vinyl chloride	<1	<1	<1	<1	<1		
Xylenes, total	<2	<2	<2	<2	<2		
Zinc, total	<20.0	34.6	<20.0	<20.0	51.2	48.1	73.5

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



Table 9

Analytical Data Summary for MW-19

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	6/17/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	41.9	<5.0	<5.0	<5.0	<5.0	<5.0
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5
Acetone	ug/L	523	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	27.4	21.8	8.2	<4.0	9.3	7.3
Barium, total	ug/L	356	206	196	175	138	196
Benzene	ug/L	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	1.2	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	1.4	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8.0	8.7	<8.0	<8.0	<8.0	<8.0
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	9.0	2.7	1.1	<.8	<.8	.8
Copper, total	ug/L	21.1	9.2	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	7	<4	<4	<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	27.5	38.4	21.3	21.2	17.2	27.5
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		762	101			
Styrene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20.0	68.3	21.9	<8.0	<8.0	16.9

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

**Table 9**

**Analytical Data Summary for MW-20**

Constituents	Units	3/28/2014	9/23/2014 9/24/2014
1,1,1,2-tetrachloroethane	ug/L	<1	<1
1,1,1-trichloroethane	ug/L	<1	<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	<1	<1
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	<5	<5
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
Benzene	ug/L	1.2	1.6
Bromochloromethane	ug/L	<1	<1
Bromodichloromethane	ug/L	<1	<1
Bromoform	ug/L	<1	<1
Bromomethane	ug/L	<1	<1
Carbon disulfide	ug/L	<1	<1
Carbon tetrachloride	ug/L	<1	<1
Chlorobenzene	ug/L	2.2	3.5
Chloroethane	ug/L	<1	<1
Chloroform	ug/L	<1	<1
Chloromethane	ug/L	<1	<1
Cis-1,2-dichloroethylene	ug/L	1.0	1.6
Cis-1,3-dichloropropene	ug/L	<1	<1
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	1.8	2.5
Xylenes, total	ug/L	<2	<2

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

Table 9

Analytical Data Summary for MW-21

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
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	12	<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	109	114	144	141	122	134	136	150	136
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	<4.0	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<2.0
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	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<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	<4
Solids, total suspended	mg/L		617	224						
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	<20.0	<16.0	<8.0	8.5	<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-21

Constituents	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022
1,1,1,2-tetrachloroethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<5	<1	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<5	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<25	<5	<5	<5	<5	<5	<10	<10
2-hexanone (mbk)	<5	<25	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<25	<5	<5	<5	<5	<5	<5	<5
Acetone	<10	<50	<10	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<25	<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	181	172	139	159		171	158	229
Benzene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4		<4	<4	<4
Bromochloromethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<5	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8		<.8	<.8	<.8
Carbon disulfide	<1	<5	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<5	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<5	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8		<8	<8	<8
Cis-1,2-dichloroethylene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	.8	<.8	<.8	<.8	<.4		.7	.4	5.1
Copper, total	<4	<4	<4	<4	<4		<4	<4	<4
Dibromochloromethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4		<4	<4	<4
Methyl iodide	<1	<5	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<25	<5	<5	<5	<5	<5	<5	<5
Nickel, total	5.1	4.5	<4.0	<4.0	<4.0		5.0	<4.0	5.0
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	<5	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<2	<2	<2	<2		<2	<2	<2
Toluene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<25	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<1	<5	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<5	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20		<20	<20	<20
Vinyl acetate	<5	<25	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<5	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<10	<2	<2	<2	<2	<2	<2	<2
Zinc, total	8.0	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-21

Constituents	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
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	168	162	142	146
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	<.4	<.4	<.4
Dibromochloromethane	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1
Lead, total	<.4	<.4	<.4	<.4
Methyl iodide	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0
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-22

Constituents	Units	3/28/2014
1,1,1,2-tetrachloroethane	ug/L	<1
1,1,1-trichloroethane	ug/L	<1
1,1,2,2-tetrachloroethane	ug/L	<1
1,1,2-trichloroethane	ug/L	<1
1,1-dichloroethane	ug/L	<1
1,1-dichloroethylene	ug/L	<1
1,2,3-trichloropropane	ug/L	<1
1,2-dibromo-3-chloropropane	ug/L	<1
1,2-dibromoethane	ug/L	<1
1,2-dichlorobenzene	ug/L	<1
1,2-dichloroethane	ug/L	<1
1,2-dichloropropane	ug/L	<1
1,4-dichlorobenzene	ug/L	<1
2-butanone (mek)	ug/L	<5
2-hexanone (mbk)	ug/L	<5
4-methyl-2-pentanone (mibk)	ug/L	<5
Acetone	ug/L	<10
Acrylonitrile	ug/L	<5
Antimony, total	ug/L	2
Arsenic, total	ug/L	4
Barium, total	ug/L	50.5
Benzene	ug/L	<1
Beryllium, total	ug/L	<4
Bromochloromethane	ug/L	<1
Bromodichloromethane	ug/L	<1
Bromoform	ug/L	<1
Bromomethane	ug/L	<1
Cadmium, total	ug/L	<.8
Carbon disulfide	ug/L	<1
Carbon tetrachloride	ug/L	<1
Chlorobenzene	ug/L	<1
Chloroethane	ug/L	<1
Chloroform	ug/L	<1
Chloromethane	ug/L	<1
Chromium, total	ug/L	<8
Cis-1,2-dichloroethylene	ug/L	<1
Cis-1,3-dichloropropene	ug/L	<1
Cobalt, total	ug/L	<4
Copper, total	ug/L	<4
Dibromochloromethane	ug/L	<1
Dibromomethane	ug/L	<1
Ethylbenzene	ug/L	<1
Lead, total	ug/L	<4
Methyl iodide	ug/L	<1
Methylene chloride	ug/L	<5
Nickel, total	ug/L	<4
Selenium, total	ug/L	<4
Silver, total	ug/L	<4
Styrene	ug/L	<1
Tetrachloroethylene	ug/L	<1
Thallium, total	ug/L	<4
Toluene	ug/L	<1
Trans-1,2-dichloroethylene	ug/L	<1
Trans-1,3-dichloropropene	ug/L	<1
Trans-1,4-dichloro-2-butene	ug/L	<5
Trichloroethylene	ug/L	<1
Trichlorofluoromethane	ug/L	<1
Vanadium, total	ug/L	<20
Vinyl acetate	ug/L	<5
Vinyl chloride	ug/L	<1
Xylenes, total	ug/L	<2
Zinc, total	ug/L	<20

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

Table 9

Analytical Data Summary for MW-22B

Constituents	Units	9/23/2014	3/18/2015	6/17/2015	8/27/2015	3/3/2016
		9/24/2014	3/19/2015		9/2/2015	3/4/2016
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5
Antimony, total	ug/L	8.2	3.0	2.8	3.7	4.3
Arsenic, total	ug/L	22.5	20.8	17.7	20.4	26.2
Barium, total	ug/L	39.3	44.8	41.7	46.8	57.6
Benzene	ug/L	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5
Nickel, total	ug/L	11.3	7.7	7.4	7.7	7.4
Selenium, total	ug/L	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4
Solids, total suspended	mg/L	668	4			
Styrene	ug/L	<1	<1	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2
Zinc, total	ug/L	<16	<8	<8	<8	<8

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

Table 9

Analytical Data Summary for MW-23B

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018
(3,4)-methylphenol	ug/L				<8					
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L				<1					
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L				<8					
1,2,4-trichlorobenzene	ug/L				<1					
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L				<8					
1,3,5-trinitrobenzene	ug/L				<8					
1,3-dichlorobenzene	ug/L				<1					
1,3-dichloropropane	ug/L				<1					
1,3-dinitrobenzene	ug/L				<8					
1,4-dichlorobenzene	ug/L	<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	<10	<10	<10	<10	<10	13	<10	<10
Acetonitrile	ug/L				<10					
Acetophenone	ug/L				<8					
Acrolein	ug/L				<10					
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L				<.05					
Allyl chloride	ug/L				<1					
Alpha-bhc	ug/L				<.05					

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



Table 9

Analytical Data Summary for MW-23B

Constituents	3/26/2019
(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	<1
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	<1
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)	<5
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
Acetonitrile	
Acetophenone	
Acrolein	
Acrylonitrile	<5
Aldrin	
Allyl chloride	
Alpha-bhc	

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

Table 9

Analytical Data Summary for MW-23B

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018
Anthracene	ug/L				<8					
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L				<.1					
Arochlor 1221	ug/L				<.2					
Arochlor 1232	ug/L				<.2					
Arochlor 1242	ug/L				<.2					
Arochlor 1248	ug/L				<.2					
Arochlor 1254	ug/L				<.1					
Arochlor 1260	ug/L				<.1					
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Azobenzene	ug/L				<8					
Barium, total	ug/L	454	404	383	394	389	354	390	367	376
Benzene	ug/L	<1	<1	<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	<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	<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	<.8	<.8	<.8	<.8	<.8	2.3	<.8	<2.0	<.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					

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

Table 9

Analytical Data Summary for MW-23B

Constituents	3/26/2019
Anthracene	
Antimony, total	<2
Arochlor 1016	
Arochlor 1221	
Arochlor 1232	
Arochlor 1242	
Arochlor 1248	
Arochlor 1254	
Arochlor 1260	
Arsenic, total	<4
Azobenzene	
Barium, total	443
Benzene	<1
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
Chloroform	<1
Chloromethane	<1
Chloroprene	
Chromium, total	<8
Chrysene	
Cis-1,2-dichloroethylene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	<.8
Copper, total	<4
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	

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

Table 9

Analytical Data Summary for MW-23B

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018
Hepachlor epoxide	ug/L				<.05					
Hexachlorobenzene	ug/L				<.05					
Hexachlorobutadiene	ug/L				<8					
Hexachlorocyclopentadiene	ug/L				<8					
Hexachloroethane	ug/L				<8					
Hexachloropropene	ug/L				<8					
Indeno(1,2,3-cd)pyrene	ug/L				<8					
Isobutanol	mg/L				<1					
Isodrin	ug/L				<8					
Isophorone	ug/L				<8					
Isosafrole	ug/L				<8					
Kepone	ug/L				<8					
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L				<.5					
Methacrylonitrile	ug/L				<1					
Methapyrene	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	4.7	<4.0	<4.0	<4.0	<4.0	13.1	5.0	<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	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L	370	850							
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L				.16					
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	<16.0	<8.0	<8.0	<8.0	15.9	<8.0	<8.0	<8.0	14.3

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

Table 9

Analytical Data Summary for MW-23B

Constituents	3/26/2019
Heptachlor epoxide	
Hexachlorobenzene	
Hexachlorobutadiene	
Hexachlorocyclopentadiene	
Hexachloroethane	
Hexachloropropene	
Indeno(1,2,3-cd)pyrene	
Isobutanol	
Isodrin	
Isophorone	
Isosafrole	
Kepone	
Lead, total	<4
Mercury, total	
Methacrylonitrile	
Methapyrilene	
Methoxychlor	
Methyl iodide	<1
Methyl methacrylate	
Methyl methanesulfonate	
Methyl parathion	
Methylene chloride	<5
Naphthalene	
Nickel, total	<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
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
Vinyl acetate	<5
Vinyl chloride	<1
Xylenes, total	<2
Zinc, total	<8.0

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

**Table 9**

**Analytical Data Summary for MW-24A**

Constituents	Units	9/23/2014	8/27/2015	3/3/2016
		9/24/2014	9/2/2015	3/4/2016
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	<1	<1	<1
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	<5	<5	<5
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
Benzene	ug/L	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1
Bromoform	ug/L	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1
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
Cis-1,2-dichloroethylene	ug/L	1.3	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1
Methyl iodide	ug/L	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5
Styrene	ug/L	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1
Toluene	ug/L	<1	<1	<1
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
Vinyl acetate	ug/L	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2

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

**Table 9**

**Analytical Data Summary for MW-24B**

Constituents	Units	9/23/2014
		9/24/2014
1,1,1,2-tetrachloroethane	ug/L	<1
1,1,1-trichloroethane	ug/L	<1
1,1,1,2,2-tetrachloroethane	ug/L	<1
1,1,2-trichloroethane	ug/L	<1
1,1-dichloroethane	ug/L	<1
1,1-dichloroethylene	ug/L	<1
1,2,3-trichloropropane	ug/L	<1
1,2-dibromo-3-chloropropane	ug/L	<1
1,2-dibromoethane	ug/L	<1
1,2-dichlorobenzene	ug/L	<1
1,2-dichloroethane	ug/L	<1
1,2-dichloropropane	ug/L	<1
1,4-dichlorobenzene	ug/L	<1
2-butanone (mek)	ug/L	<5
2-hexanone (mbk)	ug/L	<5
4-methyl-2-pentanone (mibk)	ug/L	<5
Acetone	ug/L	<10
Acrylonitrile	ug/L	<5
Benzene	ug/L	<1
Bromochloromethane	ug/L	<1
Bromodichloromethane	ug/L	<1
Bromoform	ug/L	<1
Bromomethane	ug/L	<1
Carbon disulfide	ug/L	<1
Carbon tetrachloride	ug/L	<1
Chlorobenzene	ug/L	<1
Chloroethane	ug/L	<1
Chloroform	ug/L	<1
Chloromethane	ug/L	<1
Cis-1,2-dichloroethylene	ug/L	<1
Cis-1,3-dichloropropene	ug/L	<1
Dibromochloromethane	ug/L	<1
Dibromomethane	ug/L	<1
Ethylbenzene	ug/L	<1
Methyl iodide	ug/L	<1
Methylene chloride	ug/L	<5
Styrene	ug/L	<1
Tetrachloroethylene	ug/L	<1
Toluene	ug/L	<1
Trans-1,2-dichloroethylene	ug/L	<1
Trans-1,3-dichloropropene	ug/L	<1
Trans-1,4-dichloro-2-butene	ug/L	<5
Trichloroethylene	ug/L	<1
Trichlorofluoromethane	ug/L	<1
Vinyl acetate	ug/L	<5
Vinyl chloride	ug/L	<1
Xylenes, total	ug/L	<2

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

Table 9

Analytical Data Summary for MW-24C

Constituents	Units	9/23/2014	3/18/2015
		9/24/2014	3/19/2015
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	<1	<1
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	<5	<5
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
Arsenic, total	ug/L		<4
Barium, total	ug/L		36.1
Benzene	ug/L	<1	<1
Beryllium, total	ug/L		<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
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
Cis-1,2-dichloroethylene	ug/L	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Cobalt, total	ug/L		<.8
Copper, total	ug/L		<4
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Lead, total	ug/L		<4
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Nickel, total	ug/L		<4
Selenium, total	ug/L		<4
Silver, total	ug/L		<4
Solids, total suspended	mg/L		34
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
Thallium, total	ug/L		<4
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	<2	<2
Zinc, total	ug/L		<8

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



Table 9

Analytical Data Summary for MW-24D

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	11.9	<10.0
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
Carbon disulfide	ug/L	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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	1.8	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
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
Selenium, total	ug/L									
Solids, total suspended	mg/L			5						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
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
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

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

Table 9

Analytical Data Summary for MW-24D

Constituents	9/10/2018	3/26/2019	7/17/2019
1,1,1,2-tetrachloroethane	<1	<5	
1,1,1-trichloroethane	<1	<5	
1,1,2,2-tetrachloroethane	<1	<5	
1,1,2-trichloroethane	<1	<5	
1,1-dichloroethane	<1	<5	
1,1-dichloroethylene	<1	<5	
1,2,3-trichloropropane	<1	<5	
1,2-dibromo-3-chloropropane	<1	<5	
1,2-dibromoethane	<1	<5	
1,2-dichlorobenzene	<1	<5	
1,2-dichloroethane	<1	<5	
1,2-dichloropropane	<1	<5	
1,4-dichlorobenzene	<1	<5	
2-butanone (mek)	<5	<25	
2-hexanone (mbk)	<5	<25	
4-methyl-2-pentanone (mibk)	<5	<25	
Acetone	<10.0	<50.0	
Acrylonitrile	<5	<25	
Benzene	<1	<5	
Bromochloromethane	<1	<5	
Bromodichloromethane	<1	<5	
Bromoform	<1	<5	
Bromomethane	<1	<5	
Carbon disulfide	<1.0	<5.0	
Carbon tetrachloride	<1	<5	
Chlorobenzene	<1	<5	
Chloroethane	<1	<5	
Chloroform	<1.0	<5.0	
Chloromethane	<1	<5	
Cis-1,2-dichloroethylene	<1	<5	
Cis-1,3-dichloropropene	<1	<5	
Dibromochloromethane	<1	<5	
Dibromomethane	<1	<5	
Ethylbenzene	<1	<5	
Methyl iodide	<1	<5	
Methylene chloride	<5	<25	
Selenium, total			<4
Solids, total suspended			
Styrene	<1	<5	
Tetrachloroethylene	<1	<5	
Toluene	<1	<5	
Trans-1,2-dichloroethylene	<1	<5	
Trans-1,3-dichloropropene	<1	<5	
Trans-1,4-dichloro-2-butene	<5	<25	
Trichloroethylene	<1	<5	
Trichlorofluoromethane	<1	<5	
Vinyl acetate	<5	<25	
Vinyl chloride	<1	<5	
Xylenes, total	<2	<10	

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

Table 9

## Analytical Data Summary for MW-25

Constituents	Units	9/23/2014
		9/24/2014
1,1,1,2-tetrachloroethane	ug/L	<1
1,1,1-trichloroethane	ug/L	<1
1,1,1,2,2-tetrachloroethane	ug/L	<1
1,1,2-trichloroethane	ug/L	<1
1,1-dichloroethane	ug/L	<1
1,1-dichloroethylene	ug/L	<1
1,2,3-trichloropropane	ug/L	<1
1,2-dibromo-3-chloropropane	ug/L	<1
1,2-dibromoethane	ug/L	<1
1,2-dichlorobenzene	ug/L	<1
1,2-dichloroethane	ug/L	<1
1,2-dichloropropane	ug/L	<1
1,4-dichlorobenzene	ug/L	<1
2-butanone (mek)	ug/L	<5
2-hexanone (mbk)	ug/L	<5
4-methyl-2-pentanone (mibk)	ug/L	<5
Acetone	ug/L	<10
Acrylonitrile	ug/L	<5
Benzene	ug/L	1.7
Bromochloromethane	ug/L	<1
Bromodichloromethane	ug/L	<1
Bromoform	ug/L	<1
Bromomethane	ug/L	<1
Carbon disulfide	ug/L	<1
Carbon tetrachloride	ug/L	<1
Chlorobenzene	ug/L	5.1
Chloroethane	ug/L	<1
Chloroform	ug/L	<1
Chloromethane	ug/L	<1
Cis-1,2-dichloroethylene	ug/L	2.4
Cis-1,3-dichloropropene	ug/L	<1
Dibromochloromethane	ug/L	<1
Dibromomethane	ug/L	<1
Ethylbenzene	ug/L	<1
Methyl iodide	ug/L	<1
Methylene chloride	ug/L	<5
Styrene	ug/L	<1
Tetrachloroethylene	ug/L	<1
Toluene	ug/L	<1
Trans-1,2-dichloroethylene	ug/L	<1
Trans-1,3-dichloropropene	ug/L	<1
Trans-1,4-dichloro-2-butene	ug/L	<5
Trichloroethylene	ug/L	<1
Trichlorofluoromethane	ug/L	<1
Vinyl acetate	ug/L	<5
Vinyl chloride	ug/L	3.8
Xylenes, total	ug/L	<2

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

Table 9

Analytical Data Summary for MW-26

Constituents	Units	9/23/2014	3/3/2016
		9/24/2014	3/4/2016
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	<1	<1
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	<5	<5
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
Benzene	ug/L	<1	<1
Bromochloromethane	ug/L	<1	<1
Bromodichloromethane	ug/L	<1	<1
Bromoform	ug/L	<1	<1
Bromomethane	ug/L	<1	<1
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
Cis-1,2-dichloroethylene	ug/L	1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	<2	<2

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

Table 9

Analytical Data Summary for MW-28

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	12/10/2015	2/11/2016	3/3/2016 3/4/2016	5/10/2016
(3,4)-methylphenol	ug/L								
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L								
1,2,3-trichloropropane	ug/L	<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
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L								
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
1,4-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
2-chloronaphthalene	ug/L								
2-chlorophenol	ug/L								
2-hexanone (mbk)	ug/L	<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
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	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L								
Acetophenone	ug/L								
Acrolein	ug/L								
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L								
Allyl chloride	ug/L								
Alpha-bhc	ug/L								

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

Table 9

Analytical Data Summary for MW-28

Constituents	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	7/17/2019	9/16/2019	3/23/2020 3/24/2020
(3,4)-methylphenol									
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1		<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1		<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1		<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1		<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1		<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1		<1	<1
1,1-dichloropropene									
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1		<1	<1
1,2,4,5-tetrachlorobenzene									
1,2,4-trichlorobenzene									
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<1	<1		<1	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1		<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1		<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1		<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1		<1	<1
1,2-dinitrobenzene									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene	<1	<1	<1	<1	<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)	<5	<5	<5	<5	<5	<5		<5	<5
2-chloronaphthalene									
2-chlorophenol									
2-hexanone (mbk)	<5	<5	<5	<5	<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	<5	<5		<5	<5
4-nitroaniline									
4-nitrophenol									
5-nitro-o-toluidine									
7,12-dimethylbenz(a)anthracene									
Acenaphthene									
Acenaphthylene									
Acetone	<10	<10	<10	<10	<10	<10		<10	<10
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile	<5	<5	<5	<5	<5	<5		<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									

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

Table 9

Analytical Data Summary for MW-28

Constituents	9/2/2020	3/8/2021	10/15/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
(3,4)-methylphenol		<8		<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			<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene		<8		<8					
1,2,4-trichlorobenzene		<1		<1					
1,2-dibromo-3-chloropropane	<5	<1	<5	<1	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene		<8		<8					
1,3,5-trinitrobenzene		<8		<8					
1,3-dichlorobenzene		<1		<1					
1,3-dichloropropane		<1		<1					
1,3-dinitrobenzene		<8		<8					
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone		<8		<8					
1,4-phenylenediamine		<8		<8					
1-naphthylamine		<8		<8					
2,2-dichloropropane		<1		<1					
2,3,4,6-tetrachlorophenol		<8		<8					
2,4,5-t		<5		<5					
2,4,5-tp (silvex)		<5		<5					
2,4,5-trichlorophenol		<8		<8					
2,4,6-trichlorophenol		<8		<8					
2,4-d		<2		<2					
2,4-dichlorophenol		<8		<8					
2,4-dimethylphenol		<8		<8					
2,4-dinitrophenol		<8		<8					
2,4-dinitrotoluene		<8		<8					
2,6-dichlorophenol		<8		<8					
2,6-dinitrotoluene		<8		<8					
2-acetylaminofluorene		<8		<8					
2-butanone (mek)	<5	<5	<5	<5	<10	<10	<10	<10	<10
2-chloronaphthalene		<8		<8					
2-chlorophenol		<8		<8					
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene		<8		<8					
2-methylphenol		<8		<8					
2-naphthylamine		<8		<8					
2-nitroaniline		<8		<8					
2-nitrophenol		<8		<8					
3,3'-dichlorobenzidine		<8		<8					
3,3'-dimethylbenzidine		<8		<8					
3-methylcholanthrene		<8		<8					
3-nitroaniline		<8		<8					
4,4'-ddd		<.05		<.05					
4,4'-dde		<.05		<.05					
4,4'-ddt		<.05		<.05					
4,6-dinitro-2-methylphenol		<8		<8					
4-aminobiphenyl		<8		<8					
4-bromophenyl phenyl ether		<8		<8					
4-chloro-3-methylphenol		<8		<8					
4-chloroaniline		<8		<8					
4-chlorophenyl phenyl ether		<8		<8					
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline		<8		<8					
4-nitrophenol		<8		<8					
5-nitro-o-toluidine		<8		<8					
7,12-dimethylbenz(a)anthracene		<8		<8					
Acenaphthene		<8		<8					
Acenaphthylene		<8		<8					
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile		<10		<10					
Acetophenone		<8		<8					
Acrolein		<10		<10					
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin		<.05		<.05					
Allyl chloride		<1		<1					
Alpha-bhc		<.05		<.05					

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

Table 9

Analytical Data Summary for MW-28

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	12/10/2015	2/11/2016	3/3/2016 3/4/2016	5/10/2016
Anthracene	ug/L								
Antimony, total	ug/L								
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								
Azobenzene	ug/L								
Barium, total	ug/L								
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	
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								
Beta-bhc	ug/L								
Bicarbonate, as cacO3	mg/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	
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								
Cadmium, total	ug/L								
Calcium, total	mg/L								
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	
Chlordane	ug/L								
Chloride	mg/L								
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Chlorobenzilate	ug/L								
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								
Chromium, total	ug/L								
Chrysene	ug/L								
Cis-1,2-dichloroethylene	ug/L	4.4	3.9	3.5	2.8	3.6	5.4	14.9	7.8
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	
Cobalt, total	ug/L								
Copper, total	ug/L								
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	
Dibromomethane	ug/L	<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	
Fampbur	ug/L								
Fluoranthene	ug/L								

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



Table 9

Analytical Data Summary for MW-28

Constituents	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	7/17/2019	9/16/2019	3/23/2020 3/24/2020
Anthracene									
Antimony, total									<2
Arochlor 1016									
Arochlor 1221									
Arochlor 1232									
Arochlor 1242									
Arochlor 1248									
Arochlor 1254									
Arochlor 1260									
Arsenic, total									72.8
Azobenzene									
Barium, total									1030
Benzene	<1	<1	<1	<1	<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
Beta-bhc									
Bicarbonate, as cacO3									
Bis (2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									
Bis(2-chloroisopropyl) ether									
Bis(2-ethylhexyl) phthalate									
Bromochloromethane	<1	<1	<1	<1	<1	<1		<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1		<1	<1
Bromoform	<1	<1	<1	<1	<1	<1		<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1		<1	<1
Butyl benzyl phthalate									
Cadmium, total									<.8
Calcium, total									
Carbon disulfide	<1	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1		<1	<1
Chlordane									
Chloride									
Chlorobenzene	<1	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate									
Chloroethane	<1	<1	<1	<1	<1	<1		<1	<1
Chloroform	<1	<1	<1	<1	<1	<1		<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1		<1	<1
Chloroprene									
Chromium, total									<8
Chrysene									
Cis-1,2-dichloroethylene	5.0	15.3	15.2	21.6	12.2	17.7		13.4	15.6
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1		<1	<1
Cobalt, total									38.2
Copper, total									<4
Cyanide, total									
Delta-bhc									
Diallate									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1	<1	<1	<1	<1	<1		<1	<1
Dibromomethane	<1	<1	<1	<1	<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	<1	<1		<1	<1
Famphur									
Fluoranthene									

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

Table 9

Analytical Data Summary for MW-28

Constituents	9/2/2020	3/8/2021	10/15/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Anthracene		<8		<8					
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016		<.1		<.1					
Arochlor 1221		<.2		<.2					
Arochlor 1232		<.2		<.2					
Arochlor 1242		<.2		<.2					
Arochlor 1248		<.2		<.2					
Arochlor 1254		<.1		<.1					
Arochlor 1260		<.1		<.1					
Arsenic, total	<4.0	13.8	4.3	38.7	8.2	100.0	8.8	59.7	4.0
Azobenzene		<8		<8					
Barium, total	655	735	679	1080	865	1570	647	1390	652
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene		<8		<8					
Benzo(a)pyrene		<8		<8					
Benzo(b)fluoranthene		<8		<8					
Benzo(g,h,i)perylene		<8		<8					
Benzo(k)fluoranthene		<8		<8					
Benzyl alcohol		<8		<8					
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc		<.05		<.05					
Bicarbonate, as caco3			764						
Bis (2-chloroethoxy) methane		<8		<8					
Bis(2-chloroethyl) ether		<8		<8					
Bis(2-chloroisopropyl) ether		<8		<8					
Bis(2-ethylhexyl) phthalate		<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		<8					
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Calcium, total			232						
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane		<.1		<.1					
Chloride			114						
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate		<8		<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		<1					
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene		<8		<8					
Cis-1,2-dichloroethylene	17.1	10.3	21.0	15.7	14.1	10.0	12.2	9.2	10.8
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	41.9	47.3	40.7	79.3	54.2	82.1	28.6	72.7	23.4
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cyanide, total		<.005		<.005					
Delta-bhc		<.05		<.05					
Diallate		<8		<8					
Dibenzo(a,h)anthracene		<8		<8					
Dibenzofuran		<8		<8					
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		<1		<1					
Dieldrin		<.05		<.05					
Diethyl phthalate		<8		<8					
Dimethoate		<.4		<.4					
Dimethylphthalate		<8		<8					
Di-n-butyl phthalate		<8		<8					
Di-n-octyl phthalate		<8		<8					
Dinoseb		<.5		<.5					
Diphenylamine		<8		<8					
Disulfoton		<.4		<.4					
Endosulfan i		<.05		<.05					
Endosulfan ii		<.05		<.05					
Endosulfan sulfate		<.05		<.05					
Endrin		<.05		<.05					
Endrin aldehyde		<.05		<.05					
Ethyl methacrylate		<10		<10					
Ethyl methanesulfonate		<8		<8					
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur		<.4		<.4					
Fluoranthene		<8		<8					

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

Table 9

Analytical Data Summary for MW-28

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	12/10/2015	2/11/2016	3/3/2016 3/4/2016	5/10/2016
Fluorene	ug/L								
Gamma-bhc (lindane)	ug/L								
Heptachlor	ug/L								
Heptachlor epoxide	ug/L								
Hexachlorobenzene	ug/L								
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								
Magnesium, total	mg/L								
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
Methyl methacrylate	ug/L								
Methyl methanesulfonate	ug/L								
Methyl parathion	ug/L								
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L								
Nickel, total	ug/L								
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								
Potassium, total	mg/L								
Pronamide	ug/L								
Propionitrile	ug/L								
Pyrene	ug/L								
Safrole	ug/L								
Selenium, total	ug/L								
Silver, total	ug/L								
Sodium, total	mg/L								
Solids, total dissolved	mg/L								
Solids, total suspended	mg/L			127					
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate	mg/L								
Sulfide, total	mg/L								
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L								
Thionazin	ug/L								
Tin, total	ug/L								
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	ug/L								
Trans-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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								
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2

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

Table 9

Analytical Data Summary for MW-28

Constituents	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	7/17/2019	9/16/2019	3/23/2020 3/24/2020
Fluorene									
Gamma-bhc (lindane)									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total									<4
Magnesium, total									
Mercury, total									
Methacrylonitrile									
Methapyrilene									
Methoxychlor									
Methyl iodide	<1	<1	<1	<1	<1	<1		<1	<1
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride	<5	<5	<5	<5	<5	<5		<5	<5
Naphthalene									
Nickel, total									20.2
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									
Potassium, total									
Pronamide									
Propionitrile									
Pyrene									
Safrole									
Selenium, total							<4	<4	<4
Silver, total									<4
Sodium, total									
Solids, total dissolved									
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1		<1	<1
Sulfate									
Sulfide, total									
Tetrachloroethylene	<1	<1	<1	<1	<1	<1		<1	<1
Thallium, total									<2
Thionazin									
Tin, total									
Toluene	<1	<1	<1	<1	<1	<1		<1	<1
Toxaphene									
Trans-1,2-dichloroethylene	<1.0	<1.0	<1.0	20.2	<1.0	<1.0		<1.0	<1.0
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
Vinyl acetate	<5	<5	<5	<5	<5	<5		<5	<5
Vinyl chloride	<1.0	1.8	1.1	2.0	<1.0	1.4		<1.0	<1.0
Xylenes, total	<2	<2	<2	<2	<2	<2		<2	<2

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

Table 9

Analytical Data Summary for MW-28

Constituents	9/2/2020	3/8/2021	10/15/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Fluorene		<.8		<.8					
Gamma-bhc (lindane)		<.05		<.05					
Heptachlor		<.05		<.05					
Heptachlor epoxide		<.05		<.05					
Hexachlorobenzene		<.05		<.05					
Hexachlorobutadiene		<.8		<.8					
Hexachlorocyclopentadiene		<.8		<.8					
Hexachloroethane		<.8		<.8					
Hexachloropropene		<.8		<.8					
Indeno(1,2,3-cd)pyrene		<.8		<.8					
Isobutanol		<.1		<.1					
Isodrin		<.8		<.8					
Isophorone		<.8		<.8					
Isosafrole		<.8		<.8					
Kepone		<.8		<.8					
Lead, total	<4	<4		<4	<4	<4	<4	<4	<4
Magnesium, total			39.9						
Mercury, total		<.5		<.5					
Methacrylonitrile		<.1		<.1					
Methapyriline		<.8		<.8					
Methoxychlor		<.05		<.05					
Methyl iodide	<1	<.2	<1	<.2	<1	<1	<1	<1	<1
Methyl methacrylate		<.1		<.1					
Methyl methanesulfonate		<.8		<.8					
Methyl parathion		<.4		<.4					
Methylene chloride	<5	<.5	<5	<.5	<5	<5	<5	<5	<5
Naphthalene		<.8		<.8					
Nickel, total	21.5	23.7	18.8	29.0	22.0	29.8	19.1	26.9	15.2
Nitrobenzene		<.8		<.8					
N-nitrosodiethylamine		<.8		<.8					
N-nitrosodimethylamine		<.8		<.8					
N-nitrosodi-n-butylamine		<.8		<.8					
N-nitroso-di-n-propylamine		<.8		<.8					
N-nitrosodiphenylamine		<.8		<.8					
N-nitrosomethylethylamine		<.8		<.8					
N-nitrosopiperidine		<.8		<.8					
N-nitrosopyrrolidine		<.8		<.8					
O,o,o-triethyl phosphorothioate		<.4		<.4					
O-toluidine		<.8		<.8					
Parathion		<.4		<.4					
P-dimethylaminoazobenzene		<.8		<.8					
Pentachlorobenzene		<.8		<.8					
Pentachloronitrobenzene (pcnb)		<.8		<.8					
Pentachlorophenol		<.8		<.8					
Phenacetin		<.8		<.8					
Phenanthrene		<.8		<.8					
Phenol		<.8		<.8					
Phorate		<.4		<.4					
Potassium, total			1.5						
Pronamide		<.8		<.8					
Propionitrile		<.10		<.10					
Pyrene		<.8		<.8					
Safrole		<.8		<.8					
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Sodium, total			35.9						
Solids, total dissolved			792						
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfate			18.2						
Sulfide, total		<.1		<.2					
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Thionazin		<.4		<.4					
Tin, total		<20		<20					
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene		<.2		<.2					
Trans-1,2-dichloroethylene	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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	1.5	<1.0	1.6	1.5	<1.0	1.2	<1.0	<1.0	1.3
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2

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

**Table 9**

**Analytical Data Summary for MW-28**

Constituents	Units	9/23/2014	12/2/2014	3/18/2015	8/27/2015	12/10/2015	2/11/2016	3/3/2016	5/10/2016
		9/24/2014		3/19/2015	9/2/2015			3/4/2016	
Zinc, total	ug/L								

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

**Table 9**

**Analytical Data Summary for MW-28**

<b>Constituents</b>	<b>9/20/2016 9/21/2016</b>	<b>3/9/2017</b>	<b>9/14/2017</b>	<b>3/12/2018 3/13/2018</b>	<b>9/10/2018</b>	<b>3/26/2019</b>	<b>7/17/2019</b>	<b>9/16/2019</b>	<b>3/23/2020 3/24/2020</b>
Zinc, total									<20

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

**Table 9**

**Analytical Data Summary for MW-28**

<b>Constituents</b>	<b>9/2/2020</b>	<b>3/8/2021</b>	<b>10/15/2021</b>	<b>3/28/2022</b>	<b>9/13/2022</b>	<b>3/23/2023</b>	<b>9/5/2023</b>	<b>3/6/2024</b>	<b>9/18/2024 9/19/2024</b>
Zinc, total	<20	<20	<20	<20	<20	<20	<20	<20	<20

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



Table 9

Analytical Data Summary for MW-29

Constituents	Units	9/23/2014	3/3/2016	9/20/2016
		9/24/2014	3/4/2016	9/21/2016
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	<1	<1	<1
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	<5	<5	<5
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
Benzene	ug/L	<1	<1	<1
Bromochloromethane	ug/L	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1
Bromoform	ug/L	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1
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
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1
Dibromochloromethane	ug/L	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1
Methyl iodide	ug/L	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5
Styrene	ug/L	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1
Toluene	ug/L	<1	<1	<1
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
Vinyl acetate	ug/L	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2

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

Table 9

Analytical Data Summary for MW-31

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019
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	4.8	5.4	5.5	5.2	6.2	6.1	6.3	3.8	6.0
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	15.0	<10.0	<10.0	<10.0
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L		<2							
Arsenic, total	ug/L		24.7							
Barium, total	ug/L		2020							
Benzene	ug/L	3.9	5.2	4.0	3.3	5.0	4.0	5.0	2.1	1.5
Beryllium, total	ug/L		<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							
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	7.1	7.9	7.6	7.0	8.4	8.6	8.6	6.2	5.9
Chloroethane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<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							
Cis-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	4.1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L		1.7							
Copper, total	ug/L		<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							
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		27							
Selenium, total	ug/L		<4							
Silver, total	ug/L		<4							
Solids, total suspended	mg/L		144							
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							
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							
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	1.6	2.2	<1.0	2.1
Xylenes, total	ug/L	<2	<2	<2	<2	3	<2	<2	<2	2
Zinc, total	ug/L		<8							

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

Table 9

Analytical Data Summary for MW-31

Constituents	9/16/2019	9/2/2020	3/8/2021	3/28/2022	3/23/2023	9/18/2024 9/19/2024
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
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<5	<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
1,4-dichlorobenzene	5.0	4.8	4.6	4.8	3.5	1.0
2-butanone (mek)	<5	<5	<5	<10	<10	<10
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	40.5
Acrylonitrile	<5	<5	<5	<5	<5	<5
Antimony, total						
Arsenic, total						
Barium, total						
Benzene	1.5	1.3	1.2	1.4	1.4	<1.0
Beryllium, total						
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
Cadmium, total						
Carbon disulfide	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1
Chlorobenzene	4.5	2.7	3.0	2.9	1.9	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1
Chromium, total						
Cis-1,2-dichloroethylene	2.3	<1.0	1.7	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Cobalt, total	2.5					
Copper, total						
Dibromochloromethane	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1
Lead, total						
Methyl iodide	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5
Nickel, total						
Selenium, total						
Silver, total						
Solids, total suspended						
Styrene	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	<1	<1	<1	<1	<1	<1
Thallium, total						
Toluene	<1	<1	<1	<1	<1	<1
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						
Vinyl acetate	<5	<5	<5	<5	<5	<5
Vinyl chloride	1.0	<1.0	1.9	<1.0	<1.0	<1.0
Xylenes, total	<2	<2	<2	<2	<2	<2
Zinc, total						

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

Table 9

Analytical Data Summary for MW-32

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019
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		22							
Arsenic, total	ug/L		23.9							
Barium, total	ug/L		284							
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L		<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		2							
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	<1.0	<1.0	1.8	1.6	2.7	2.7	3.9	1.7	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	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0
Chromium, total	ug/L		<8							
Cis-1,2-dichloroethylene	ug/L	2.2	2.8	2.4	1.9	2.4	1.0	<1.0	<1.0	1.6
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L		26.0							
Copper, total	ug/L		<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							
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		136							
Selenium, total	ug/L		<4							
Silver, total	ug/L		<4							
Solids, total suspended	mg/L		2							
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							
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							
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	2.1	2.2	1.8	<1.0	1.2	<1.0	<1.0	<1.0	<1.0
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L		13.4							

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

Table 9

Analytical Data Summary for MW-32

Constituents	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	3/28/2022	12/1/2022	3/23/2023	7/12/2023	3/6/2024
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	<5	<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	<10		<10		<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	<10	<10	<10	<10		<10		<10
Acrylonitrile	<5	<5	<5	<5	<5		<5		<5
Antimony, total									
Arsenic, total						<4.0		<4.0	<4.0
Barium, total									
Benzene	<1	<1	<1	<1	<1		<1		<1
Beryllium, total									
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									
Carbon disulfide	<1	<1	<1	<1	<1		<1		<1
Carbon tetrachloride	<1	<1	<1	<1	<1		<1		<1
Chlorobenzene	3.0	2.8	2.0	1.2	2.5		<1.0		2.2
Chloroethane	<1	<1	<1	<1	<1		<1		<1
Chloroform	<1	<1	<1	<1	<1		<1		<1
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Chromium, total									
Cis-1,2-dichloroethylene	2.9	1.5	<1.0	<1.0	1.0		<1.0		<1.0
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1		<1		<1
Cobalt, total	20.3	22.6							
Copper, total									
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									
Methyl iodide	<1	<1	<1	<1	<1		<1		<1
Methylene chloride	<5	<5	<5	<5	<5		<5		<5
Nickel, total									
Selenium, total									
Silver, total									
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1		<1		<1
Tetrachloroethylene	<1	<1	<1	<1	<1		<1		<1
Thallium, total									
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		<1		<1
Trichlorofluoromethane	<1	<1	<1	<1	<1		<1		<1
Vanadium, total									
Vinyl acetate	<5	<5	<5	<5	<5		<5		<5
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0
Xylenes, total	<2	<2	<2	<2	<2		<2		<2
Zinc, total									

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

Table 9

Analytical Data Summary for MW-33

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015
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	<1	<1	<1
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	<5	<5	<5
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	143	138	150
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	1.1	.8	.9
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	<.8	<.8	.8
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	8.7	<4.0	5.3
Selenium, total	ug/L	<4	<4	<4
Silver, total	ug/L	<4	<4	<4
Solids, total suspended	mg/L			18
Styrene	ug/L	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4
Toluene	ug/L	<1	<1	<1
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	21.1	19.9	16.7

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

**Table 9**

**Analytical Data Summary for MW-39D**

Constituents	Units	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Antimony, total	ug/L	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	ug/L	5.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Barium, total	ug/L	45.7	54.9	38.3	36.5	51.0	34.8	33.5	34.5	26.1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Chromium, total	ug/L	<8.0	13.2	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0
Cobalt, total	ug/L	<.4	2.6	<.4	<.4	3.3	<.4	<.4	<.4	<.4
Copper, total	ug/L	<4.0	5.6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Nickel, total	ug/L	<4.0	10.6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<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	<4
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Vanadium, total	ug/L	<20	20	<20	<20	<20	<20	<20	<20	<20
Zinc, total	ug/L	<20.0	20.7	<20.0	<20.0	25.0	<20.0	<20.0	20.4	<20.0

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

**Table 9**

**Analytical Data Summary for MW-41D**

Constituents	Units	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Antimony, total	ug/L	<2.0	<2.0	<2.0	<2.0	2.6	2.8	3.1	<2.0	<2.0
Arsenic, total	ug/L	<4.0	5.2	4.7	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Barium, total	ug/L	38.4	34.4	30.5	33.7	31.3	32.2	30.3	32.6	33.7
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cobalt, total	ug/L	5.1	3.9	2.6	2.5	5.4	1.2	.9	1.0	1.0
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Nickel, total	ug/L	11.8	6.7	6.6	6.7	10.3	8.5	7.5	4.3	5.2
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Zinc, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20

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



Table 9

Analytical Data Summary for MW-42D

Constituents	Units	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
1,1,1,2-tetrachloroethane	ug/L							<1		
1,1,1-trichloroethane	ug/L							<1		
1,1,2,2-tetrachloroethane	ug/L							<1		
1,1,2-trichloroethane	ug/L							<1		
1,1-dichloroethane	ug/L							<1		
1,1-dichloroethylene	ug/L							<1		
1,2,3-trichloropropane	ug/L							<1		
1,2-dibromo-3-chloropropane	ug/L							<5		
1,2-dibromoethane	ug/L							<1		
1,2-dichlorobenzene	ug/L							<1		
1,2-dichloroethane	ug/L							<1		
1,2-dichloropropane	ug/L							<1		
1,4-dichlorobenzene	ug/L							<1		
2-butanone (mek)	ug/L							<10		
2-hexanone (mbk)	ug/L							<5		
4-methyl-2-pentanone (mibk)	ug/L							<5		
Acetone	ug/L							<10		
Acrylonitrile	ug/L							<5		
Antimony, total	ug/L	10.9	8.9	9.4	7.4	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	ug/L	<4.0	<4.0	4.3	5.0	5.7	<4.0	4.3	4.2	<4.0
Barium, total	ug/L	58.3	53.5	55.5	52.3	44.7	40.1	36.6	37.0	30.6
Benzene	ug/L							<1		
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L							<1		
Bromodichloromethane	ug/L							<1		
Bromoform	ug/L							<1		
Bromomethane	ug/L							<1		
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L							<1		
Carbon tetrachloride	ug/L							<1		
Chlorobenzene	ug/L							<1		
Chloroethane	ug/L							<1		
Chloroform	ug/L							<1		
Chloromethane	ug/L							<1		
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L							<1		
Cis-1,3-dichloropropene	ug/L							<1		
Cobalt, total	ug/L	<.4	<.4	<.4	.5	3.4	<.4	<.4	<.4	<.4
Copper, total	ug/L	6.5	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L							<1		
Dibromomethane	ug/L							<1		
Ethylbenzene	ug/L							<1		
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L							<1		
Methylene chloride	ug/L							<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	<4
Styrene	ug/L							<1		
Tetrachloroethylene	ug/L							<1		
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Toluene	ug/L							<1		
Trans-1,2-dichloroethylene	ug/L							<1		
Trans-1,3-dichloropropene	ug/L							<1		
Trans-1,4-dichloro-2-butene	ug/L							<5		
Trichloroethylene	ug/L							<1		
Trichlorofluoromethane	ug/L							<1		
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L							<5		
Vinyl chloride	ug/L							<1		
Xylenes, total	ug/L							<2		
Zinc, total	ug/L	34.5	<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-44

Constituents	Units	7/12/2023	9/5/2023	11/28/2023 12/5/2023	3/6/2024	9/18/2024 9/19/2024
(3,4)-methylphenol	ug/L				<8	
1,1,1,2-tetrachloroethane	ug/L	<1	<1		<1	<1
1,1,1-trichloroethane	ug/L	<1	<1		<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1		<1	<1
1,1,2-trichloroethane	ug/L	<1	<1		<1	<1
1,1-dichloroethane	ug/L	<1	<1		<1	<1
1,1-dichloroethylene	ug/L	<1	<1		<1	<1
1,1-dichloropropene	ug/L				<1	
1,2,3-trichloropropane	ug/L	<1	<1		<1	<1
1,2,4,5-tetrachlorobenzene	ug/L				<8	
1,2,4-trichlorobenzene	ug/L				<1	
1,2-dibromo-3-chloropropane	ug/L	<5	<5		<1	<5
1,2-dibromoethane	ug/L	<1	<1		<1	<1
1,2-dichlorobenzene	ug/L	<1	<1		<1	<1
1,2-dichloroethane	ug/L	<1	<1		<1	<1
1,2-dichloropropane	ug/L	<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
1,4-naphthoquinone	ug/L				<8	
1,4-phenylenediamine	ug/L				<8	
1-naphthylamine	ug/L				<8	
2,2-dichloropropane	ug/L				<1	
2,3,4,6-tetrachlorophenol	ug/L				<8	
2,4,5-t	ug/L				<.5	
2,4,5-tp (silvex)	ug/L				<.5	
2,4,5-trichlorophenol	ug/L				<8	
2,4,6-trichlorophenol	ug/L				<8	
2,4-d	ug/L				<2	
2,4-dichlorophenol	ug/L				<8	
2,4-dimethylphenol	ug/L				<8	
2,4-dinitrophenol	ug/L				<8	
2,4-dinitrotoluene	ug/L				<8	
2,6-dichlorophenol	ug/L				<8	
2,6-dinitrotoluene	ug/L				<8	
2-acetylaminofluorene	ug/L				<8	
2-butanone (mek)	ug/L	<10	<10		<5	<10
2-chloronaphthalene	ug/L				<8	
2-chlorophenol	ug/L				<8	
2-hexanone (mbk)	ug/L	<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
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	11.1	<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
Aldrin	ug/L				<.05	
Allyl chloride	ug/L				<1	
Alpha-bhc	ug/L				<.05	

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

Table 9

Analytical Data Summary for MW-44

Constituents	Units	7/12/2023	9/5/2023	11/28/2023 12/5/2023	3/6/2024	9/18/2024 9/19/2024
Anthracene	ug/L				<8	
Antimony, total	ug/L	<2	<2		<2	<2
Arochlor 1016	ug/L				<.2	
Arochlor 1221	ug/L				<.2	
Arochlor 1232	ug/L				<.2	
Arochlor 1242	ug/L				<.2	
Arochlor 1248	ug/L				<.2	
Arochlor 1254	ug/L				<.2	
Arochlor 1260	ug/L				<.2	
Arsenic, total	ug/L	<4	<4		<4	<4
Azobenzene	ug/L				<8	
Barium, total	ug/L	624	708	803	795	662
Benzene	ug/L	<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
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				14	10
Bromochloromethane	ug/L	<1	<1		<1	<1
Bromodichloromethane	ug/L	<1	<1		<1	<1
Bromoform	ug/L	<1	<1		<1	<1
Bromomethane	ug/L	<1	<1		<1	<1
Butyl benzyl phthalate	ug/L				<8	
Cadmium, total	ug/L	<.8	<.8		<.8	<.8
Carbon disulfide	ug/L	<1	<1		<1	<1
Carbon tetrachloride	ug/L	<1	<1		<1	<1
Chlordane	ug/L				<.1	
Chlorobenzene	ug/L	<1	<1		<1	<1
Chlorobenzilate	ug/L				<8	
Chloroethane	ug/L	<1	<1		<1	<1
Chloroform	ug/L	<1	<1		<1	<1
Chloromethane	ug/L	<1	<1		<1	<1
Chloroprene	ug/L				<1	
Chromium, total	ug/L	<8	<8		<8	<8
Chrysene	ug/L				<8	
Cis-1,2-dichloroethylene	ug/L	<1	<1		<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1		<1	<1
Cobalt, total	ug/L	1.0	.6		.7	.5
Copper, total	ug/L	<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
Dibromomethane	ug/L	<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
Famphur	ug/L				<.4	
Fluoranthene	ug/L				<8	
Fluorene	ug/L				<8	
Gamma-bhc (lindane)	ug/L				<.05	
Heptachlor	ug/L				<.05	

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

Table 9

Analytical Data Summary for MW-44

Constituents	Units	7/12/2023	9/5/2023	11/28/2023 12/5/2023	3/6/2024	9/18/2024 9/19/2024
Heptachlor epoxide	ug/L				<.05	
Hexachlorobenzene	ug/L				<.05	
Hexachlorobutadiene	ug/L				<.8	
Hexachlorocyclopentadiene	ug/L				<.8	
Hexachloroethane	ug/L				<.8	
Hexachloropropene	ug/L				<.8	
Indeno(1,2,3-cd)pyrene	ug/L				<.8	
Isobutanol	mg/L				<.1	
Isodrin	ug/L				<.8	
Isophorone	ug/L				<.8	
Isosafrole	ug/L				<.8	
Kepone	ug/L				<.8	
Lead, total	ug/L	<4	<4		<.4	<4
Mercury, total	ug/L				<.5	
Methacrylonitrile	ug/L				<.1	
Methapyrilene	ug/L				<.8	
Methoxychlor	ug/L				<.05	
Methyl iodide	ug/L	<1	<1		<.2	<1
Methyl methacrylate	ug/L				<.1	
Methyl methanesulfonate	ug/L				<.8	
Methyl parathion	ug/L				<.4	
Methylene chloride	ug/L	<5	<5		<.5	<5
Naphthalene	ug/L				<.8	
Nickel, total	ug/L	<4	<4		<.4	<4
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
Silver, total	ug/L	<4	<4		<.4	<4
Styrene	ug/L	<1	<1		<.1	<1
Sulfide, total	mg/L				<1.5	
Tetrachloroethylene	ug/L	<1	<1		<.1	<1
Thallium, total	ug/L	<2	<2		<.2	<2
Thionazin	ug/L				<.4	
Tin, total	ug/L				<20	
Toluene	ug/L	<1.0	2.2	<1.0	<1.0	<1.0
Toxaphene	ug/L				<.2	
Trans-1,2-dichloroethylene	ug/L	<1	<1		<.1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1		<.1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5		<.5	<5
Trichloroethylene	ug/L	<1	<1		<.1	<1
Trichlorofluoromethane	ug/L	<1	<1		<.1	<1
Vanadium, total	ug/L	<20	<20		<20	<20
Vinyl acetate	ug/L	<5	<5		<.5	<5
Vinyl chloride	ug/L	<1	<1		<.1	<1
Xylenes, total	ug/L	<2	<2		<.2	<2
Zinc, total	ug/L	<20	<20		<20	<20

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

Table 9

Analytical Data Summary for MW-45A

Constituents	Units	3/6/2024	6/3/2024	9/18/2024 9/19/2024
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	89.3	94.8	98.9
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	7.0
Copper, total	ug/L	<4	5	<4
Dibromochloromethane	ug/L	<1		<1
Dibromomethane	ug/L	<1		<1
Ethylbenzene	ug/L	<1		<1
Lead, total	ug/L	<4	<4	<4
Methyl iodide	ug/L	<1		<1
Methylene chloride	ug/L	<5		<5
Nickel, total	ug/L	4.3	4.6	4.5
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	<20	<20	<20

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

Table 9

Analytical Data Summary for MW-45D

Constituents	Units	3/6/2024	6/3/2024	9/18/2024 9/19/2024
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	<10.0		38.2
Acrylonitrile	ug/L	<5		<5
Antimony, total	ug/L	2	<2	<2
Arsenic, total	ug/L	<4.0	7.9	9.7
Barium, total	ug/L	32.3	32.3	83.1
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	2.1	.8	.8
Copper, total	ug/L	<4	<4	<4
Dibromochloromethane	ug/L	<1		<1
Dibromomethane	ug/L	<1		<1
Ethylbenzene	ug/L	<1		<1
Lead, total	ug/L	<4	<4	<4
Methyl iodide	ug/L	<1		<1
Methylene chloride	ug/L	<5		<5
Nickel, total	ug/L	5.2	<4.0	<4.0
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	<20	<20	<20

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

Table 9

Analytical Data Summary for MW-4A

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	6/17/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<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	367	418	322	267	390	378	380	265
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	<4.0	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L	<4.0	<4.0	<4.0	30.1	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
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	<4
Solids, total suspended	mg/L		96		7					
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	<20.0	<8.0	<8.0	14.7	<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-4A

Constituents	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021
1,1,1,2-tetrachloroethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<5	<1	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<5	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<5	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<25	<5	<5	<5	<5	<5
2-hexanone (mbk)	<5	<5	<5	<25	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<25	<5	<5	<5	<5	<5
Acetone	<10	<10	<10	<50	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<25	<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	365	313	316	232	346	250	360	296	344
Benzene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<5	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<5	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<5	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<5	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Cobalt, total	<.8	<2.0	<.8	<.8	<.8	<.8	<.4	<.4	<.4
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	<1	<1	<1	<5	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<25	<5	<5	<5	<5	<5
Nickel, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
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	<5	<1	<1	<1	<1	<1
Tetrachloroethylene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<25	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<5	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<5	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<25	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<5	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<10	<2	<2	<2	<2	<2
Zinc, total	<8.0	<8.0	14.1	<8.0	<20.0	<20.0	<20.0	<20.0	<20.0

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



Table 9

Analytical Data Summary for MW-4B

Constituents	Units	9/23/2014 9/24/2014	12/2/2014
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	<1	<1
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	<5	<5
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	3.8	4.3
Arsenic, total	ug/L	<4	<4
Barium, total	ug/L	46.3	57.9
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	<.8	1.1
Copper, total	ug/L	7.0	4.6
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	5.2	5.5
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	<4	<4
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	10.4	<8.0

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

Table 9

Analytical Data Summary for MW-4C

Constituents	Units	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	6/17/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016
1,1,1,2-tetrachloroethane	ug/L	<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
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	4	<4	<4	<4	<4	<4
Barium, total	ug/L	53.8	52.3	51.8	30.9	25.6	42.2
Benzene	ug/L	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	.9	<.8	<.8	<.8	<.8	<.8
Copper, total	ug/L	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	5.0	<4.0	<4.0	6.1	6.0	6.1
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L	83		13			
Styrene	ug/L	<1	<1	<1	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	17.6	10.9	<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-6A

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017
(3,4)-methylphenol	ug/L								
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L								
1,2,3-trichloropropane	ug/L	<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
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L								
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
1,4-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
2-chloronaphthalene	ug/L								
2-chlorophenol	ug/L								
2-hexanone (mbk)	ug/L	<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
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	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L								
Acetophenone	ug/L								
Acrolein	ug/L								
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L								
Allyl chloride	ug/L								
Alpha-bhc	ug/L								

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

Table 9

Analytical Data Summary for MW-6A

Constituents	12/13/2017	3/12/2018 3/13/2018	9/10/2018	11/14/2018	3/26/2019	6/5/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020
(3,4)-methylphenol					8			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			<1	
1,2,3-trichloropropane		<1	<1		<1		<1	<1	<1
1,2,4,5-tetrachlorobenzene					8			8	
1,2,4-trichlorobenzene					<1			<1	
1,2-dibromo-3-chloropropane		<1	<1		<1		<1	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			8	
1,3,5-trinitrobenzene					8			8	
1,3-dichlorobenzene					<1			<1	
1,3-dichloropropane					<1			<1	
1,3-dinitrobenzene					8			8	
1,4-dichlorobenzene		<1	<1		<1		<1	<1	<1
1,4-naphthoquinone					8			8	
1,4-phenylenediamine					8			8	
1-naphthylamine					8			8	
2,2-dichloropropane					<1			<1	
2,3,4,6-tetrachlorophenol					8			8	
2,4,5-t					5			7	
2,4,5-tp (silvex)					5			7	
2,4,5-trichlorophenol					8			8	
2,4,6-trichlorophenol					8			8	
2,4-d					0			2.7	
2,4-dichlorophenol					8			8	
2,4-dimethylphenol					8			8	
2,4-dinitrophenol					8			8	
2,4-dinitrotoluene					8			8	
2,6-dichlorophenol					8			8	
2,6-dinitrotoluene					8			8	
2-acetylaminofluorene					8			8	
2-butanone (mek)		<5	<5		5		<5	5	<5
2-chloronaphthalene					8			8	
2-chlorophenol					8			8	
2-hexanone (mbk)		<5	<5		5		<5	5	<5
2-methylnaphthalene					8			8	
2-methylphenol					8			8	
2-naphthylamine					8			8	
2-nitroaniline					8			8	
2-nitrophenol					8			8	
3,3'-dichlorobenzidine					8			8	
3,3'-dimethylbenzidine					8			8	
3-methylcholanthrene					8			8	
3-nitroaniline					8			8	
4,4'-ddd					05			05	
4,4'-dde					05			05	
4,4'-ddt					05			05	
4,6-dinitro-2-methylphenol					8			8	
4-aminobiphenyl					8			8	
4-bromophenyl phenyl ether					8			8	
4-chloro-3-methylphenol					8			8	
4-chloroaniline					8			8	
4-chlorophenyl phenyl ether					8			8	
4-methyl-2-pentanone (mibk)		<5	<5		5		<5	5	<5
4-nitroaniline					8			8	
4-nitrophenol					8			8	
5-nitro-o-toluidine					8			8	
7,12-dimethylbenz(a)anthracene					8			8	
Acenaphthene					8			8	
Acenaphthylene					8			8	
Acetone		<10	<10		10		<10	10	<10
Acetonitrile					10			10	
Acetophenone					8			8	
Acrolein					10			10	
Acrylonitrile		<5	<5		5		<5	5	<5
Aldrin					05			05	
Allyl chloride					1			1	
Alpha-bhc					05			05	

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

Table 9

Analytical Data Summary for MW-6A

Constituents	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/18/2024 9/19/2024
(3,4)-methylphenol						
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						
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene						
1,2,4-trichlorobenzene						
1,2-dibromo-3-chloropropane	<5	<5	<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						
1,3,5-trinitrobenzene						
1,3-dichlorobenzene						
1,3-dichloropropane						
1,3-dinitrobenzene						
1,4-dichlorobenzene	<1	<1	<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)	<5	<5	<10	<10	<10	<10
2-chloronaphthalene						
2-chlorophenol						
2-hexanone (mbk)	<5	<5	<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	<5	<5
4-nitroaniline						
4-nitrophenol						
5-nitro-o-toluidine						
7,12-dimethylbenz(a)anthracene						
Acenaphthene						
Acenaphthylene						
Acetone	<10	<10	<10	<10	<10	<10
Acetonitrile						
Acetophenone						
Acrolein						
Acrylonitrile	<5	<5	<5	<5	<5	<5
Aldrin						
Allyl chloride						
Alpha-bhc						

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

Table 9

Analytical Data Summary for MW-6A

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017
Anthracene	ug/L								
Antimony, total	ug/L	<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	8.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Azobenzene	ug/L								
Barium, total	ug/L	406.0	178.0	276.0	228.0	255.0	235.0	237.0	296.0
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
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
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
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L								
Cadmium, total	ug/L	2.1	<.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
Chlordane	ug/L								
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L								
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
Chloroprene	ug/L								
Chromium, total	ug/L	<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
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	2.5	<.8	1.4	<.8	1.2	<.8	5.4
Copper, total	ug/L	7.6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
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
Dibromomethane	ug/L	<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
Famphur	ug/L								
Fluoranthene	ug/L								
Fluorene	ug/L								
Gamma-bhc (lindane)	ug/L								
Heptachlor	ug/L								

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

Table 9

Analytical Data Summary for MW-6A

Constituents	12/13/2017	3/12/2018 3/13/2018	9/10/2018	11/14/2018	3/26/2019	6/5/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020
Anthracene					<.8			<.8	
Antimony, total		<2	<2		<.2		<2	<.8	<2
Arochlor 1016					<.1			<.1	
Arochlor 1221					<.2			<.2	
Arochlor 1232					<.2			<.2	
Arochlor 1242					<.2			<.2	
Arochlor 1248					<.2			<.2	
Arochlor 1254					<.1			<.1	
Arochlor 1260					<.1			<.1	
Arsenic, total		5.3	<4.0		<4.0		<4.0	<4.0	<4.0
Azobenzene					<.8			<.8	
Barium, total		374.0	115.0		169.0		192.0	202.0	187.0
Benzene		<1	<1		<.1		<1	<.1	<1
Benzo(a)anthracene					<.8			<.8	
Benzo(a)pyrene					<.8			<.8	
Benzo(b)fluoranthene					<.8			<.8	
Benzo(g,h,i)perylene					<.8			<.8	
Benzo(k)fluoranthene					<.8			<.8	
Benzyl alcohol					<.8			<.8	
Beryllium, total		<4	<4		<.4		<4	<.4	<4
Beta-bhc					<.05			<.05	
Bis (2-chloroethoxy) methane					<.8			<.8	
Bis(2-chloroethyl) ether					<.8			<.8	
Bis(2-chloroisopropyl) ether					<.8			<.8	
Bis(2-ethylhexyl) phthalate					55	<6	7	7	
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			<.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			<.1	
Chlorobenzene		<1	<1		<.1		<1	<.1	<1
Chlorobenzilate					<.8			<.8	
Chloroethane		<1	<1		<.1		<1	<.1	<1
Chloroform		<1	<1		<.1		<1	<.1	<1
Chloromethane		<1	<1		<.1		<1	<.1	<1
Chloroprene					<.1			<.1	
Chromium, total		<8	<8		<.8		<8	<.8	<8
Chrysene					<.8			<.8	
Cis-1,2-dichloroethylene		<1	<1		<.1		<1	<.1	<1
Cis-1,3-dichloropropene		<1	<1		<.1		<1	<.1	<1
Cobalt, total	1.4	<2.0	2.2		<.8		1.3	<.8	.7
Copper, total		<4.0	<4.0		<4.0		<4.0	<4.0	<4.0
Cyanide, total					<.005			<.005	
Delta-bhc					<.05			<.05	
Diallate					<.8			<.8	
Dibenzo(a,h)anthracene					<.8			<.8	
Dibenzofuran					<.8			<.8	
Dibromochloromethane		<1	<1		<.1		<1	<.1	<1
Dibromomethane		<1	<1		<.1		<1	<.1	<1
Dichlorodifluoromethane					<.1			<.1	
Dieldrin					<.05			<.05	
Diethyl phthalate					<.8			<.8	
Dimethoate					<.4			<.4	
Dimethylphthalate					<.8			<.8	
Di-n-butyl phthalate					<.8			<.8	
Di-n-octyl phthalate					<.8			<.8	
Dinoseb					<.5			<.7	
Diphenylamine					<.8			<.8	
Disulfoton					<.4			<.4	
Endosulfan i					<.05			<.05	
Endosulfan ii					<.05			<.05	
Endosulfan sulfate					<.05			<.05	
Endrin					<.05			<.05	
Endrin aldehyde					<.05			<.05	
Ethyl methacrylate					<10			<10	
Ethyl methanesulfonate					<.8			<.8	
Ethylbenzene		<1	<1		<.1		<1	<.1	<1
Famphur					<.4			<.4	
Fluoranthene					<.8			<.8	
Fluorene					<.8			<.8	
Gamma-bhc (lindane)					<.05			<.05	
Heptachlor					<.05			<.05	

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

Table 9

Analytical Data Summary for MW-6A

Constituents	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/18/2024 9/19/2024
Anthracene						
Antimony, total	<2	<2	3	<2	<2	<2
Arochlor 1016						
Arochlor 1221						
Arochlor 1232						
Arochlor 1242						
Arochlor 1248						
Arochlor 1254						
Arochlor 1260						
Arsenic, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Azobenzene						
Barium, total	173.0	152.0	127.0	174.0	119.0	80.2
Benzene	<1	<1	<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	<4	<4
Beta-bhc						
Bis (2-chloroethoxy) methane						
Bis(2-chloroethyl) ether						
Bis(2-chloroisopropyl) ether						
Bis(2-ethylhexyl) phthalate	<6	<6	<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						
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						
Chlorobenzene	<1	<1	<1	<1	<1	<1
Chlorobenzilate						
Chloroethane	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1
Chloroprene						
Chromium, total	<8	<8	<8	<8	<8	<8
Chrysene						
Cis-1,2-dichloroethylene	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1
Cobalt, total	17.5	1.9	.4	2.8	<.4	4.9
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total						
Delta-bhc						
Diallate						
Dibenzo(a,h)anthracene						
Dibenzofuran						
Dibromochloromethane	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<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	<1	<1
Famphur						
Fluoranthene						
Fluorene						
Gamma-bhc (lindane)						
Heptachlor						

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



Table 9

Analytical Data Summary for MW-6A

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017
Hepachlor epoxide	ug/L								
Hexachlorobenzene	ug/L								
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	4.8	<4.0	<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
Methyl methacrylate	ug/L								
Methyl methanesulfonate	ug/L								
Methyl parathion	ug/L								
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L								
Nickel, total	ug/L	25.1	13.7	9.4	17.3	4.1	5.5	<4.0	13.2
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	<4.0	<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
Solids, total suspended	mg/L		186	19					
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	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
Thionazin	ug/L								
Tin, total	ug/L								
Toluene	ug/L	<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
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	48.0	<16.0	8.4	9.6	<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-6A

Constituents	12/13/2017	3/12/2018 3/13/2018	9/10/2018	11/14/2018	3/26/2019	6/5/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020
Heptachlor epoxide					<.05			<.05	
Hexachlorobenzene					<.05			<.05	
Hexachlorobutadiene					<.8			<.8	
Hexachlorocyclopentadiene					<.8			<.8	
Hexachloroethane					<.8			<.8	
Hexachloropropene					<.8			<.8	
Indeno(1,2,3-cd)pyrene					<.8			<.8	
Isobutanol					<.1			<.1	
Isodrin					<.8			<.8	
Isophorone					<.8			<.8	
Isosafrole					<.8			<.8	
Kepone					<.8			<.8	
Lead, total		<4.0	<4.0		<4.0		<4.0	<4.0	<4.0
Mercury, total					<.5			<.5	
Methacrylonitrile					<.1			<.1	
Methacrylene					<.8			<.8	
Methoxychlor					<.05			<.05	
Methyl iodide		<.1	<.1		<.1		<.1	<.1	<.1
Methyl methacrylate					<.1		<.1	<.1	
Methyl methanesulfonate					<.8			<.8	
Methyl parathion					<.4			<.4	
Methylene chloride		<.5	<.5		<.5		<.5	<.5	<.5
Naphthalene					<.8			<.8	
Nickel, total		5.2	22.8	35.2	4.6		11.8	5.5	5.1
Nitrobenzene					<.8			<.8	
N-nitrosodiethylamine					<.8			<.8	
N-nitrosodimethylamine					<.8			<.8	
N-nitrosodi-n-butylamine					<.8			<.8	
N-nitroso-di-n-propylamine					<.8			<.8	
N-nitrosodiphenylamine					<.8			<.8	
N-nitrosomethylethylamine					<.8			<.8	
N-nitrosopiperidine					<.8			<.8	
N-nitrosopyrrolidine					<.8			<.8	
O,o,o-triethyl phosphorothioate					<.4			<.4	
O-toluidine					<.8			<.8	
Parathion					<.4			<.4	
P-dimethylaminoazobenzene					<.8			<.8	
Pentachlorobenzene					<.8			<.8	
Pentachloronitrobenzene (pcnb)					<.8			<.8	
Pentachlorophenol					<.8			<.8	
Phenacetin					<.8			<.8	
Phenanthrene					<.8			<.8	
Phenol					<.8			<.8	
Phorate					<.4			<.4	
Pronamide					<.8			<.8	
Propionitrile					<.10			<.10	
Pyrene					<.8			<.8	
Safrole					<.8			<.8	
Selenium, total		<4.0	<4.0		<4.0		<4.0	<4.0	<4.0
Silver, total		<4	<4		<4		<4	<4	<4
Solids, total suspended									
Styrene		<.1	<.1		<.1		<.1	<.1	<.1
Sulfide, total					<.1			<.1	
Tetrachloroethylene		<.1	<.1		<.1		<.1	<.1	<.1
Thallium, total		<.4	<.4		<.2		<.2	<.2	<.2
Thionazin					<.4			<.4	
Tin, total					<.20			<.20	
Toluene		<.1	<.1		<.1		<.1	<.1	<.1
Toxaphene					<.2			<.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		<.80	13.5		<.80		<.200	<.200	<.200

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

Table 9

Analytical Data Summary for MW-6A

Constituents	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/18/2024 9/19/2024
Heptachlor epoxide						
Hexachlorobenzene						
Hexachlorobutadiene						
Hexachlorocyclopentadiene						
Hexachloroethane						
Hexachloropropene						
Indeno(1,2,3-cd)pyrene						
Isobutanol						
Isodrin						
Isophorone						
Isosafrole						
Kepone						
Lead, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Mercury, total						
Methacrylonitrile						
Methapyrilene						
Methoxychlor						
Methyl iodide	<1	<1	<1	<1	<1	<1
Methyl methacrylate						
Methyl methanesulfonate						
Methyl parathion						
Methylene chloride	<5	<5	<5	<5	<5	<5
Naphthalene						
Nickel, total	28.1	5.7	28.3	25.9	18.0	22.6
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	<4.0	<4.0	84.7	4.4	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4
Solids, total suspended						
Styrene	<1	<1	<1	<1	<1	<1
Sulfide, total						
Tetrachloroethylene	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2
Thionazin						
Tin, total						
Toluene	<1	<1	<1	<1	<1	<1
Toxaphene						
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 9

## Analytical Data Summary for MW-6B

Constituents	Units	9/23/2014
		9/24/2014
1,1,1,2-tetrachloroethane	ug/L	<1
1,1,1-trichloroethane	ug/L	<1
1,1,2,2-tetrachloroethane	ug/L	<1
1,1,2-trichloroethane	ug/L	<1
1,1-dichloroethane	ug/L	<1
1,1-dichloroethylene	ug/L	<1
1,2,3-trichloropropane	ug/L	<1
1,2-dibromo-3-chloropropane	ug/L	<1
1,2-dibromoethane	ug/L	<1
1,2-dichlorobenzene	ug/L	<1
1,2-dichloroethane	ug/L	<1
1,2-dichloropropane	ug/L	<1
1,4-dichlorobenzene	ug/L	<1
2-butanone (mek)	ug/L	<5
2-hexanone (mbk)	ug/L	<5
4-methyl-2-pentanone (mibk)	ug/L	<5
Acetone	ug/L	<10
Acrylonitrile	ug/L	<5
Antimony, total	ug/L	<2
Arsenic, total	ug/L	<4
Barium, total	ug/L	286
Benzene	ug/L	<1
Beryllium, total	ug/L	<4
Bromochloromethane	ug/L	<1
Bromodichloromethane	ug/L	<1
Bromoform	ug/L	<1
Bromomethane	ug/L	<1
Cadmium, total	ug/L	<.8
Carbon disulfide	ug/L	<1
Carbon tetrachloride	ug/L	<1
Chlorobenzene	ug/L	<1
Chloroethane	ug/L	<1
Chloroform	ug/L	<1
Chloromethane	ug/L	<1
Chromium, total	ug/L	<8
Cis-1,2-dichloroethylene	ug/L	<1
Cis-1,3-dichloropropene	ug/L	<1
Cobalt, total	ug/L	1.4
Copper, total	ug/L	<4
Dibromochloromethane	ug/L	<1
Dibromomethane	ug/L	<1
Ethylbenzene	ug/L	<1
Lead, total	ug/L	<4
Methyl iodide	ug/L	<1
Methylene chloride	ug/L	<5
Nickel, total	ug/L	44.1
Selenium, total	ug/L	<4
Silver, total	ug/L	<4
Solids, total suspended	mg/L	20
Styrene	ug/L	<1
Tetrachloroethylene	ug/L	<1
Thallium, total	ug/L	<4
Toluene	ug/L	<1
Trans-1,2-dichloroethylene	ug/L	<1
Trans-1,3-dichloropropene	ug/L	<1
Trans-1,4-dichloro-2-butene	ug/L	<5
Trichloroethylene	ug/L	<1
Trichlorofluoromethane	ug/L	<1
Vanadium, total	ug/L	<20
Vinyl acetate	ug/L	<5
Vinyl chloride	ug/L	<1
Xylenes, total	ug/L	<2
Zinc, total	ug/L	22.5

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

Table 9

Analytical Data Summary for MW-7B

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
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	391	698	<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	648	2060	<10	<10	<10	<10	<10	15	<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	<4.0	21.9	9.5	<4.0	<4.0	<4.0	4.7	<4.0	<4.0
Barium, total	ug/L	31.9	64.2	41.6	39.2	38.2	33.5	33.2	30.5	33.2
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	1.8	<.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	<8.0	15.5	<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	<4.0	8.2	<.8	<.8	<.8	<.8	1.4	<.8	<2.0
Copper, total	ug/L	<4.0	9.6	<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	10	<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	20	<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	<4
Solids, total suspended	mg/L		3300	64						
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	<20.0	45.2	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	9.3

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

Table 9

## Analytical Data Summary for MW-7B

Constituents	9/10/2018
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	<1
1,2-dibromoethane	<1
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<1
1,4-dichlorobenzene	<1
2-butanone (mek)	<5
2-hexanone (mbk)	<5
4-methyl-2-pentanone (mibk)	<5
Acetone	<10
Acrylonitrile	<5
Antimony, total	<2
Arsenic, total	<4.0
Barium, total	40.1
Benzene	<1
Beryllium, total	<4
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Cadmium, total	<.8
Carbon disulfide	<1
Carbon tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
Chromium, total	<8.0
Cis-1,2-dichloroethylene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	<.8
Copper, total	<4.0
Dibromochloromethane	<1
Dibromomethane	<1
Ethylbenzene	<1
Lead, total	<4
Methyl iodide	<1
Methylene chloride	<5
Nickel, total	<4
Selenium, total	<4
Silver, total	<4
Solids, total suspended	
Styrene	<1
Tetrachloroethylene	<1
Thallium, total	<4
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	<8.0

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

Table 9

Analytical Data Summary for MW-8B

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
(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				

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

Table 9

Analytical Data Summary for MW-8B

Constituents	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022
(3,4)-methylphenol									
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									
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene									
1,2,4-trichlorobenzene									
1,2-dibromo-3-chloropropane	<1	<1	<1	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene									
1,3,5-trinitrobenzene									
1,3-dichlorobenzene									
1,3-dichloropropane									
1,3-dinitrobenzene									
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<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)	<5	<5	<5	<5	<5	<5	<5	<10	<10
2-chloronaphthalene									
2-chlorophenol									
2-hexanone (mbk)	<5	<5	<5	<5	<5	<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	<5	<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	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile									
Acetophenone									
Acrolein									
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin									
Allyl chloride									
Alpha-bhc									

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



Table 9

Analytical Data Summary for MW-8B

Constituents	3/23/2023	5/9/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
(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	12.2	<10.0	<10.0	<10.0	<10.0
Acetonitrile					
Acetophenone					
Acrolein					
Acrylonitrile	<5		<5	<5	<5
Aldrin					
Allyl chloride					
Alpha-bhc					

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

Table 9

Analytical Data Summary for MW-8B

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
Anthracene	ug/L					<8				
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L					<1				
Arochlor 1221	ug/L					<2				
Arochlor 1232	ug/L					<2				
Arochlor 1242	ug/L					<2				
Arochlor 1248	ug/L					<2				
Arochlor 1254	ug/L					<1				
Arochlor 1260	ug/L					<1				
Arsenic, total	ug/L	12.9	16.4	18.1	20.1	19.9	20.4	36.5	17.6	20.3
Azobenzene	ug/L					<8				
Barium, total	ug/L	907	1110	864	797	1000	814	1330	803	769
Benzene	ug/L	<1	<1	<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	<4	<4
Beta-bhc	ug/L					<.05				
Bicarbonate, as cacO3	mg/L									
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	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L					<8				
Cis-1,2-dichloroethylene	ug/L	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	20.9	13.6	11.8	10.8	15.1	13.2	22.0	14.8	15.9
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				
Ethane	mg/L									
Ethene	mg/L									
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				

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

Table 9

Analytical Data Summary for MW-8B

Constituents	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022
Anthracene									
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016									
Arochlor 1221									
Arochlor 1232									
Arochlor 1242									
Arochlor 1248									
Arochlor 1254									
Arochlor 1260									
Arsenic, total	17.3	18.4	17.1	20.6	18.5	18.7	13.3	16.0	11.3
Azobenzene									
Barium, total	767	1040	838	829	804	746	763	742	767
Benzene	<1	<1	<1	<1	<1	<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	<4	<4	<4	<4	<4
Beta-bhc									
Bicarbonate, as caco3				652	792	777		718	
Bis (2-chloroethoxy) methane									
Bis(2-chloroethyl) ether									
Bis(2-chloroisopropyl) ether									
Bis(2-ethylhexyl) phthalate									
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									
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									
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate									
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									
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene									
Cis-1,2-dichloroethylene	<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
Cobalt, total	9.6	15.4	14.3	12.5	13.4	12.0	11.9	12.7	13.8
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cyanide, total									
Delta-bhc									
Diallate									
Dibenzo(a,h)anthracene									
Dibenzofuran									
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane									
Dieldrin									
Diethyl phthalate									
Dimethoate									
Dimethylphthalate									
Di-n-butyl phthalate									
Di-n-octyl phthalate									
Dinoseb									
Diphenylamine									
Disulfoton									
Endosulfan i									
Endosulfan ii									
Endosulfan sulfate									
Endrin									
Endrin aldehyde									
Ethane				<.015	<.013	<.010			
Ethene				<.015	<.013	<.010			
Ethyl methacrylate									
Ethyl methanesulfonate									
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur									
Fluoranthene									

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

Table 9

Analytical Data Summary for MW-8B

Constituents	3/23/2023	5/9/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Anthracene					
Antimony, total	<2		<2	<2	<2
Arochlor 1016					
Arochlor 1221					
Arochlor 1232					
Arochlor 1242					
Arochlor 1248					
Arochlor 1254					
Arochlor 1260					
Arsenic, total	18.2		17.4	18.0	17.5
Azobenzene					
Barium, total	821		810	806	1080
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					
Bicarbonate, as cacO3			698	695	728
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	9.6		12.3	12.3	11.8
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					
Ethane					<.005
Ethene					<.005
Ethyl methacrylate					
Ethyl methanesulfonate					
Ethylbenzene	<1		<1	<1	<1
Famphur					
Fluoranthene					

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

Table 9

Analytical Data Summary for MW-8B

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
Fluorene	ug/L					<8				
Gamma-bhc (lindane)	ug/L					<.05				
Heptachlor	ug/L					<.05				
Heptachlor epoxide	ug/L					<.05				
Hexachlorobenzene	ug/L					<.05				
Hexachlorobutadiene	ug/L					<8				
Hexachlorocyclopentadiene	ug/L					<8				
Hexachloroethane	ug/L					<8				
Hexachloropropene	ug/L					<8				
Indeno(1,2,3-cd)pyrene	ug/L					<8				
Isobutanol	mg/L					<1				
Isodrin	ug/L					<8				
Isophorone	ug/L					<8				
Isosafrole	ug/L					<8				
Kepone	ug/L					<8				
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L					<.5				
Methacrylonitrile	ug/L					<1				
Methane	mg/L									
Methapyrilene	ug/L					<8				
Methoxychlor	ug/L					<.05				
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate	ug/L					<1				
Methyl methanesulfonate	ug/L					<8				
Methyl parathion	ug/L					<.4				
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L					<8				
Nickel, total	ug/L	25.0	9.1	7.7	6.1	13.7	5.0	13.9	9.5	9.3
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				
pH	pH									
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	<4
Solids, total suspended	mg/L		749	60						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L					.15				
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	93.0	<16.0	<8.0	<8.0	<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-8B

Constituents	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022
Fluorene									
Gamma-bhc (lindane)									
Heptachlor									
Heptachlor epoxide									
Hexachlorobenzene									
Hexachlorobutadiene									
Hexachlorocyclopentadiene									
Hexachloroethane									
Hexachloropropene									
Indeno(1,2,3-cd)pyrene									
Isobutanol									
Isodrin									
Isophorone									
Isosafrole									
Kepone									
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total									
Methacrylonitrile									
Methane				1.6100	.2130	.1500			
Methapyrilene									
Methoxychlor									
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate									
Methyl methanesulfonate									
Methyl parathion									
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene									
Nickel, total	5.7	13.6	9.3	9.9	9.6	8.4	8.5	9.0	5.0
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									
pH				6.8	6.8	6.6		6.7	
Phenacetin									
Phenanthrene									
Phenol									
Phorate									
Pronamide									
Propionitrile									
Pyrene									
Safrole									
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									
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<2	<2	<2	<2	<2	<2	<2	<2
Thionazin									
Tin, total									
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene									
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	26.2	<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-8B

Constituents	3/23/2023	5/9/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Fluorene					
Gamma-bhc (lindane)					
Heptachlor					
Heptachlor epoxide					
Hexachlorobenzene					
Hexachlorobutadiene					
Hexachlorocyclopentadiene					
Hexachloroethane					
Hexachloropropene					
Indeno(1,2,3-cd)pyrene					
Isobutanol					
Isodrin					
Isophorone					
Isosafrole					
Kepone					
Lead, total	<4		<4	<4	<4
Mercury, total					
Methacrylonitrile					
Methane					.0708
Methapyrilene					
Methoxychlor					
Methyl iodide	<1		<1	<1	<1
Methyl methacrylate					
Methyl methanesulfonate					
Methyl parathion					
Methylene chloride	<5		<5	<5	<5
Naphthalene					
Nickel, total	6.8		7.1	6.7	8.0
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					
pH			7.0	6.6	6.6
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-9A

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017
(3,4)-methylphenol	ug/L					<8		
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	3.4	2.6	2.0	1.9	3.3	1.0	2.1
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	2.2	<1.0	<1.0	1.2	<1.0	<1.0	2.5
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	2.3	1.1	2.3	2.5	1.9	1.6	2.1
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	<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		

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



Table 9

Analytical Data Summary for MW-9A

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017
Anthracene	ug/L					<8		
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L					<.1		
Arochlor 1221	ug/L					<.2		
Arochlor 1232	ug/L					<.2		
Arochlor 1242	ug/L					<.2		
Arochlor 1248	ug/L					<.2		
Arochlor 1254	ug/L					<.1		
Arochlor 1260	ug/L					<.1		
Arsenic, total	ug/L	10.1	9.9	8.3	7.9	10.9	5.7	9.1
Azobenzene	ug/L					<8		
Barium, total	ug/L	1510	1330	1330	1030	1030	934	1040
Benzene	ug/L	4.3	4.6	5.3	5.0	2.6	2.5	3.0
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	<10	<10	<10	<10	<8	<10	<10
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L					<8		
Cadmium, total	ug/L	1.3	<.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	5.2	5.1	6.4	5.9	4.0	4.2	5.3
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	103.0	48.9	43.6	37.9	169.0	31.9	120.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	11.5	2.6	2.4	1.5	1.6	1.5	1.5
Copper, total	ug/L	12.6	<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		
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		

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

Table 9

Analytical Data Summary for MW-9A

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017
Heptachlor epoxide	ug/L					<.05		
Hexachlorobenzene	ug/L					<.05		
Hexachlorobutadiene	ug/L					<8		
Hexachlorocyclopentadiene	ug/L					<8		
Hexachloroethane	ug/L					<8		
Hexachloropropene	ug/L					<8		
Indeno(1,2,3-cd)pyrene	ug/L					<8		
Isobutanol	mg/L					<1		
Isodrin	ug/L					<8		
Isophorone	ug/L					<8		
Isosafrole	ug/L					<8		
Kepone	ug/L					<8		
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L					<.5		
Methacrylonitrile	ug/L					<1		
Methapyrilene	ug/L					<8		
Methoxychlor	ug/L					<.05		
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1
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	49.7	19.4	16.7	9.4	13.7	4.8	11.8
Nitrobenzene	ug/L					<8		
N-nitrosodiethylamine	ug/L					<8		
N-nitrosodimethylamine	ug/L					<8		
N-nitrosodi-n-butylamine	ug/L					<8		
N-nitroso-di-n-propylamine	ug/L					<8		
N-nitrosodiphenylamine	ug/L					<8		
N-nitrosomethylethylamine	ug/L					<8		
N-nitrosopiperidine	ug/L					<8		
N-nitrosopyrrolidine	ug/L					<8		
O,o,o-triethyl phosphorothioate	ug/L					<.4		
O-toluidine	ug/L					<8		
Parathion	ug/L					<.4		
P-dimethylaminoazobenzene	ug/L					<8		
Pentachlorobenzene	ug/L					<8		
Pentachloronitrobenzene (pcnb)	ug/L					<8		
Pentachlorophenol	ug/L					<8		
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		137	199				
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L					<.1		
Tetrachloroethylene	ug/L	1.6	<1.0	<1.0	<1.0	1.2	<1.0	<1.0
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	2.3	1.7	3.4	3.7	3.5	1.3	2.7
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	20.4	6.4	3.4	<1.0	18.9	4.6	13.9
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	40.8	80.3	93.2	113.0	56.8	43.0	29.2
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	181.0	17.5	<8.0	<8.0	14.7	<8.0	<8.0

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

Table 9

Analytical Data Summary for MW-9AR

Constituents	Units	12/13/2017	3/12/2018 3/13/2018	6/6/2018 6/11/2018	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021
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	2.1	2.1	1.6	1.9	1.7	1.5	1.5	1.4	1.4
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	<5	<5	<5
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-dichlorobenzene	ug/L	<1.0	<1.0	1.4	1.4	1.2	<1.0	<1.0	<1.0	<1.0
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	2.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	ug/L	13.9	5.0	11.3	10.9	14.1	10.5	18.3	6.4	13.7
Barium, total	ug/L	1630	983	1240	958	875	873	865	754	665
Benzene	ug/L	2.4	2.6	2.8	3.2	2.0	1.6	1.5	2.0	1.4
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bicarbonate, as cacO3	mg/L							758	822	796
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	<2.0	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	1.7	1.5	4.4	4.7	4.3	5.5	3.8	5.9	3.6
Chloroethane	ug/L	<1.0	<1.0	<1.0	2.6	1.2	<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	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	ug/L	120.0	94.3	58.1	69.2	58.1	82.7	70.1	83.9	99.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	11.1	4.7	5.4	5.4	5.9	4.0	6.1	3.6	4.6
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
Ethane	mg/L							<.010	<.010	<.008
Ethene	mg/L							<.010	<.010	<.008
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
Methane	mg/L							1.940	1.180	.582
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	52.2	27.0	31.2	31.7	34.0	23.8	31.1	18.4	22.8
pH								6.8	6.7	6.6
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	<8	<4	<4	<4	<4	<4	<4
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	<2	<2	<2	<2	<2
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	ug/L	6.8	86.4	4.2	5.3	3.3	4.5	4.3	5.8	4.4
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	<1.0	1.7	1.3	1.3	1.9	<1.0	1.4	1.9	2.2
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	19.7	31.5	39.2	50.7	24.7	27.6	30.4	33.5	24.4
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20.0	9.5	<20.0	36.9	<8.0	<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-9AR

Constituents	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
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	1.4	1.3	1.2	<1.0	1.5	1.3	<1.0
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	<5	<5	<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	1.0	1.4	<1.0	1.3	<1.0	1.1	<1.0
1,4-dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
2-butanone (mek)	<5	<10	<10	<10	<10	<10	<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	<10	<10	<10	<10	<10	<10
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5
Antimony, total	<2.0	4.9	<2.0	5.0	<2.0	<2.0	<2.0
Arsenic, total	<4.0	<4.0	4.4	<4.0	4.1	7.0	<4.0
Barium, total	569	178	655	148	523	653	444
Benzene	1.2	<1.0	2.1	<1.0	2.0	2.4	1.5
Beryllium, total	<4	<4	<4	<4	<4	<4	<4
Bicarbonate, as cacO3		365			690	662	778
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	1.8	2.4	1.4	1.9	1.3	2.7
Carbon disulfide	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	3.4	<1.0	3.0	<1.0	5.8	5.8	4.3
Chloroethane	<1.0	<1.0	<1.0	<1.0	<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	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	102.0	148.0	88.8	70.0	70.8	58.9	43.6
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	5.6	.5	6.5	.6	4.1	4.3	3.4
Copper, total	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1
Ethane							<.005
Ethene							<.005
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4
Methane							.659
Methyl iodide	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5
Nickel, total	18.4	8.2	19.6	5.3	19.4	19.5	16.7
pH		6.9			6.6	6.6	6.7
Selenium, total	<4.0	23.4	<4.0	19.5	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4
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	4.0	4.6	6.8	4.4	5.0	5.1	4.0
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	2.7	9.0	1.7	7.4	2.4	1.7	2.1
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	24.1	1.4	39.3	1.2	32.8	45.1	28.2
Xylenes, total	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	36.5	54.8	<20.0	28.3	44.6	35.2

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

Table 9

Analytical Data Summary for MW-9B

Constituents	Units	9/23/2014	3/18/2015
		9/24/2014	3/19/2015
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	<1	<1
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	<5	<5
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		2.1
Arsenic, total	ug/L		<4
Barium, total	ug/L		128
Benzene	ug/L	<1	<1
Beryllium, total	ug/L		<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
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
Cis-1,2-dichloroethylene	ug/L	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Cobalt, total	ug/L		4
Copper, total	ug/L		<4
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Lead, total	ug/L		<4
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Nickel, total	ug/L		8.6
Selenium, total	ug/L		<4
Silver, total	ug/L		<4
Solids, total suspended	mg/L		4
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
Thallium, total	ug/L		<4
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	<2	<2
Zinc, total	ug/L		8.4

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

Table 9

Analytical Data Summary for SW-1

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	3/12/2018 3/13/2018	9/10/2018
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<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	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Barium, total	ug/L	206	371	316	327	373	393	295	224	310
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	<.8	<.8	<.8	<.8	.8	1.1	<2.0	<.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	4.8	8.0	7.1	5.3	6.6	4.9	7.8	5.5	5.2
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	<4
Solids, total suspended	mg/L		2	3						
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	<20.0	<16.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	11.7

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

Table 9

Analytical Data Summary for SW-1

Constituents	3/26/2019	9/16/2019	11/20/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	3/23/2023
1,1,1,2-tetrachloroethane	<5	<1		<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<5	<1		<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<5	<1		<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<5	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<5	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<5	<1		<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<5	<1		<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<1		<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<5	<1		<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<5	<1		<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<5	<1		<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<5	<1		<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<5	<1		<1	<1	<1	<1	<1	<1
2-butanone (mek)	<25	<5		<5	<5	<5	<5	<10	<10
2-hexanone (mbk)	<25	<5		<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<25	<5		<5	<5	<5	<5	<5	<5
Acetone	<50	<10		<10	<10	<10	<10	<10	<10
Acrylonitrile	<25	<5		<5	<5	<5	<5	<5	<5
Antimony, total	<2	<2		<2	<2	<2	<2	<2	<2
Arsenic, total	<4.0	10.7 *		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Barium, total	212	388		199	187	234	207	300	191
Benzene	<5	<1		<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4		<4	<4	<4	<4	<4	<4
Bromochloromethane	<5	<1		<1	<1	<1	<1	<1	<1
Bromodichloromethane	<5	<1		<1	<1	<1	<1	<1	<1
Bromoform	<5	<1		<1	<1	<1	<1	<1	<1
Bromomethane	<5	<1		<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8		<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<5	<1		<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<5	<1		<1	<1	<1	<1	<1	<1
Chlorobenzene	<5	<1		<1	<1	<1	<1	<1	<1
Chloroethane	<5	<1		<1	<1	<1	<1	<1	<1
Chloroform	<5	<1		<1	<1	<1	<1	<1	<1
Chloromethane	<5	<1		<1	<1	<1	<1	<1	<1
Chromium, total	<.8	<.8		<.8	<.8	<.8	<.8	<.8	<.8
Cis-1,2-dichloroethylene	<5.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	<5	<1		<1	<1	<1	<1	<1	<1
Cobalt, total	<.8	2.9		<.8	<.4	.6	.6	.9	<.4
Copper, total	<.4	<.4		<.4	<.4	<.4	<.4	<.4	<.4
Dibromochloromethane	<5	<1		<1	<1	<1	<1	<1	<1
Dibromomethane	<5	<1		<1	<1	<1	<1	<1	<1
Ethylbenzene	<5	<1		<1	<1	<1	<1	<1	<1
Lead, total	<.4	<.4		<.4	<.4	<.4	<.4	<.4	<.4
Methyl iodide	<5	<1		<1	<1	<1	<1	<1	<1
Methylene chloride	<25	<5		<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	8.2		<4.0	<4.0	8.6	<4.0	4.8	<4.0
Selenium, total	<4.0	<4.0		<4.0	<4.0	18.4	<4.0	4.2	<4.0
Silver, total	<.4	<.4		<.4	<.4	<.4	<.4	<.4	<.4
Solids, total suspended									
Styrene	<5	<1		<1	<1	<1	<1	<1	<1
Tetrachloroethylene	<5	<1		<1	<1	<1	<1	<1	<1
Thallium, total	<.2	<.2		<.2	<.2	<.2	<.2	<.2	<.2
Toluene	<5	<1		<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<5	<1		<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<5	<1		<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<25	<5		<5	<5	<5	<5	<5	<5
Trichloroethylene	<5	<1		<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<5	<1		<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20		<20	<20	<20	<20	<20	<20
Vinyl acetate	<25	<5		<5	<5	<5	<5	<5	<5
Vinyl chloride	<5	<1		<1	<1	<1	<1	<1	<1
Xylenes, total	<10	<2		<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	<20.0		<20.0	<20.0	<20.0	<20.0	24.3	<20.0

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

Table 9

Analytical Data Summary for SW-101

Constituents	Units	5/8/2014	7/8/2014	9/23/2014 9/24/2014	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
(3,4)-methylphenol	ug/L					<8		<8		
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-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	<1		
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L					<8		<8		
1,2,4-trichlorobenzene	ug/L					<1		<1		
1,2-dibromo-3-chloropropane	ug/L	<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		<8		
1,3,5-trinitrobenzene	ug/L					<8		<8		
1,3-dichlorobenzene	ug/L					<1		<1		
1,3-dichloropropane	ug/L					<1		<1		
1,3-dinitrobenzene	ug/L					<8		<8		
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L					<8		<8		
1,4-phenylenediamine	ug/L					<8		<8		
1-naphthylamine	ug/L					<8		<8		
2,2-dichloropropane	ug/L					<1		<1		
2,3,4,6-tetrachlorophenol	ug/L					<8		<8		
2,4,5-t	ug/L					<.5		<.5		
2,4,5-tp (silvex)	ug/L					<.5		<.5		
2,4,5-trichlorophenol	ug/L					<8		<8		
2,4,6-trichlorophenol	ug/L					<8		<8		
2,4-d	ug/L					<2		<2		
2,4-dichlorophenol	ug/L					<8		<8		
2,4-dimethylphenol	ug/L					<8		<8		
2,4-dinitrophenol	ug/L					<8		<8		
2,4-dinitrotoluene	ug/L					<8		<8		
2,6-dichlorophenol	ug/L					<8		<8		
2,6-dinitrotoluene	ug/L					<8		<8		
2-acetylaminofluorene	ug/L					<8		<8		
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene	ug/L					<8		<8		
2-chlorophenol	ug/L					<8		<8		
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L					<8		<8		
2-methylphenol	ug/L					<8		<8		
2-naphthylamine	ug/L					<8		<8		
2-nitroaniline	ug/L					<8		<8		
2-nitrophenol	ug/L					<8		<8		
3,3'-dichlorobenzidine	ug/L					<8		<8		
3,3'-dimethylbenzidine	ug/L					<8		<8		
3-methylcholanthrene	ug/L					<8		<8		
3-nitroaniline	ug/L					<8		<8		
4,4'-ddd	ug/L					<.05		<.05		
4,4'-dde	ug/L					<.05		<.05		
4,4'-ddt	ug/L					<.05		<.05		
4,6-dinitro-2-methylphenol	ug/L					<8		<8		
4-aminobiphenyl	ug/L					<8		<8		
4-bromophenyl phenyl ether	ug/L					<8		<8		
4-chloro-3-methylphenol	ug/L					<8		<8		
4-chloroaniline	ug/L					<8		<8		
4-chlorophenyl phenyl ether	ug/L					<8		<8		
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L					<8		<8		
4-nitrophenol	ug/L					<8		<8		
5-nitro-o-toluidine	ug/L					<8		<8		
7,12-dimethylbenz(a)anthracene	ug/L					<8		<8		
Acenaphthene	ug/L					<8		<8		
Acenaphthylene	ug/L					<8		<8		
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	13.7	<10.0
Acetonitrile	ug/L					<10		<10		
Acetophenone	ug/L					<8		<8		
Acrolein	ug/L					<10		<10		
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L					<.05		<.05		
Allyl chloride	ug/L					<1		<1		
Alpha-bhc	ug/L					<.05		<.05		

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



Table 9

Analytical Data Summary for SW-101

Constituents	9/10/2018	3/26/2019
(3,4)-methylphenol		
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
1,1-dichloropropene		
1,2,3-trichloropropane	<1	<1
1,2,4,5-tetrachlorobenzene		
1,2,4-trichlorobenzene		
1,2-dibromo-3-chloropropane	<1	<1
1,2-dibromoethane	<1	<1
1,2-dichlorobenzene	<1	<1
1,2-dichloroethane	<1	<1
1,2-dichloropropane	<1	<1
1,2-dinitrobenzene		
1,3,5-trinitrobenzene		
1,3-dichlorobenzene		
1,3-dichloropropane		
1,3-dinitrobenzene		
1,4-dichlorobenzene	<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)	<5	<5
2-chloronaphthalene		
2-chlorophenol		
2-hexanone (mbk)	<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
4-nitroaniline		
4-nitrophenol		
5-nitro-o-toluidine		
7,12-dimethylbenz(a)anthracene		
Acenaphthene		
Acenaphthylene		
Acetone	<10.0	<10.0
Acetonitrile		
Acetophenone		
Acrolein		
Acrylonitrile	<5	<5
Aldrin		
Allyl chloride		
Alpha-bhc		

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

Table 9

Analytical Data Summary for SW-101

Constituents	Units	5/8/2014	7/8/2014	9/23/2014 9/24/2014	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
Anthracene	ug/L					<8		<8		
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2		
Arochlor 1016	ug/L					<.1		<.1		
Arochlor 1221	ug/L					<.2		<.2		
Arochlor 1232	ug/L					<.2		<.2		
Arochlor 1242	ug/L					<.2		<.2		
Arochlor 1248	ug/L					<.2		<.2		
Arochlor 1254	ug/L					<.1		<.1		
Arochlor 1260	ug/L					<.1		<.1		
Arsenic, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	5.8		
Azobenzene	ug/L					<8		<8		
Barium, total	ug/L	240	136	153	194	197	208	530		
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L					<8		<8		
Benzo(a)pyrene	ug/L					<8		<8		
Benzo(b)fluoranthene	ug/L					<8		<8		
Benzo(g,h,i)perylene	ug/L					<8		<8		
Benzo(k)fluoranthene	ug/L					<8		<8		
Benzyl alcohol	ug/L					<8		<8		
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Beta-bhc	ug/L					<.05		<.05		
Bis (2-chloroethoxy) methane	ug/L					<8		<8		
Bis(2-chloroethyl) ether	ug/L					<8		<8		
Bis(2-chloroisopropyl) ether	ug/L					<8		<8		
Bis(2-ethylhexyl) phthalate	ug/L					<8		25		
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		<8		
Cadmium, total	ug/L	1.6	<.8	<.8	1.6	<.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		<.1		
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L					<8		<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		<1		
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8		
Chrysene	ug/L					<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	5.5	<4.0	<.8	.9	<.8	<.8	2.8		
Copper, total	ug/L	7.4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0		
Cyanide, total	mg/L					<.005		<.005		
Delta-bhc	ug/L					<.05		<.05		
Diallate	ug/L					<8		<8		
Dibenzo(a,h)anthracene	ug/L					<8		<8		
Dibenzofuran	ug/L					<8		<8		
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L					<1		<1		
Dieldrin	ug/L					<.05		<.05		
Diethyl phthalate	ug/L					<8		<8		
Dimethoate	ug/L					<.4		<.4		
Dimethylphthalate	ug/L					<8		<8		
Di-n-butyl phthalate	ug/L					<8		<8		
Di-n-octyl phthalate	ug/L					<8		<8		
Dinoseb	ug/L					<.5		<.5		
Diphenylamine	ug/L					<8		<8		
Disulfoton	ug/L					<.4		<.4		
Endosulfan i	ug/L					<.05		<.05		
Endosulfan ii	ug/L					<.05		<.05		
Endosulfan sulfate	ug/L					<.05		<.05		
Endrin	ug/L					<.05		<.05		
Endrin aldehyde	ug/L					<.05		<.05		
Ethyl methacrylate	ug/L					<10		<10		
Ethyl methanesulfonate	ug/L					<8		<8		
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L					<.4		<.4		
Fluoranthene	ug/L					<8		<8		
Fluorene	ug/L					<8		<8		
Gamma-bhc (lindane)	ug/L					<.05		<.05		
Heptachlor	ug/L					<.05		<.05		

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

Table 9

Analytical Data Summary for SW-101

Constituents	9/10/2018	3/26/2019
Anthracene		
Antimony, total		
Arochlor 1016		
Arochlor 1221		
Arochlor 1232		
Arochlor 1242		
Arochlor 1248		
Arochlor 1254		
Arochlor 1260		
Arsenic, total		
Azobenzene		
Barium, total		
Benzene	<1	<1
Benzo(a)anthracene		
Benzo(a)pyrene		
Benzo(b)fluoranthene		
Benzo(g,h,i)perylene		
Benzo(k)fluoranthene		
Benzyl alcohol		
Beryllium, total		
Beta-bhc		
Bis (2-chloroethoxy) methane		
Bis(2-chloroethyl) ether		
Bis(2-chloroisopropyl) ether		
Bis(2-ethylhexyl) phthalate		
Bromochloromethane	<1	<1
Bromodichloromethane	<1	<1
Bromoform	<1	<1
Bromomethane	<1	<1
Butyl benzyl phthalate		
Cadmium, total		
Carbon disulfide	<1	<1
Carbon tetrachloride	<1	<1
Chlordane		
Chlorobenzene	<1	<1
Chlorobenzilate		
Chloroethane	<1	<1
Chloroform	<1	<1
Chloromethane	<1	<1
Chloroprene		
Chromium, total		
Chrysene		
Cis-1,2-dichloroethylene	<1	<1
Cis-1,3-dichloropropene	<1	<1
Cobalt, total		
Copper, total		
Cyanide, total		
Delta-bhc		
Diallate		
Dibenzo(a,h)anthracene		
Dibenzofuran		
Dibromochloromethane	<1	<1
Dibromomethane	<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
Famphur		
Fluoranthene		
Fluorene		
Gamma-bhc (lindane)		
Heptachlor		

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

Table 9

Analytical Data Summary for SW-101

Constituents	Units	5/8/2014	7/8/2014	9/23/2014 9/24/2014	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
Heptachlor epoxide	ug/L					<.05		<.05		
Hexachlorobenzene	ug/L					<.05		<.05		
Hexachlorobutadiene	ug/L					<8		<8		
Hexachlorocyclopentadiene	ug/L					<8		<8		
Hexachloroethane	ug/L					<8		<8		
Hexachloropropene	ug/L					<8		<8		
Indeno(1,2,3-cd)pyrene	ug/L					<8		<8		
Isobutanol	mg/L					<1		<1		
Isodrin	ug/L					<8		<8		
Isophorone	ug/L					<8		<8		
Isosafrole	ug/L					<8		<8		
Kepone	ug/L					<8		<8		
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Mercury, total	ug/L					<.5		<.5		
Methacrylonitrile	ug/L					<1		<1		
Methapyrilene	ug/L					<8		<8		
Methoxychlor	ug/L					<.05		<.05		
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate	ug/L					<1		<1		
Methyl methanesulfonate	ug/L					<8		<8		
Methyl parathion	ug/L					<.4		<.4		
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L					<8		<8		
Nickel, total	ug/L	22.2	8.3	7.8	15.1	15.3	12.4	21.6		
Nitrobenzene	ug/L					<8		<8		
N-nitrosodiethylamine	ug/L					<8		<8		
N-nitrosodimethylamine	ug/L					<8		<8		
N-nitrosodi-n-butylamine	ug/L					<8		<8		
N-nitroso-di-n-propylamine	ug/L					<8		<8		
N-nitrosodiphenylamine	ug/L					<8		<8		
N-nitrosomethylethylamine	ug/L					<8		<8		
N-nitrosopiperidine	ug/L					<8		<8		
N-nitrosopyrrolidine	ug/L					<8		<8		
O,o,o-triethyl phosphorothioate	ug/L					<.4		<.4		
O-toluidine	ug/L					<8		<8		
Parathion	ug/L					<.4		<.4		
P-dimethylaminoazobenzene	ug/L					<8		<8		
Pentachlorobenzene	ug/L					<8		<8		
Pentachloronitrobenzene (pcnb)	ug/L					<8		<8		
Pentachlorophenol	ug/L					<8		<8		
Phenacetin	ug/L					<8		<8		
Phenanthrene	ug/L					<8		<8		
Phenol	ug/L					<8		<8		
Phorate	ug/L					<.4		<.4		
Pronamide	ug/L					<8		<8		
Propionitrile	ug/L					<10		<10		
Pyrene	ug/L					<8		<8		
Safrole	ug/L					<8		<8		
Selenium, total	ug/L	<4.0	<4.0	<4.0	6.5	37.6	18.7	8.2		
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4		
Solids, total suspended	mg/L			143						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L					<.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		
Thionazin	ug/L					<.4		<.4		
Tin, total	ug/L					<20		<20		
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	ug/L					<.2		<.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		
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	28.4	<8.0	<16.0	11.2	<8.0	<8.0	11.3		

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

Table 9

Analytical Data Summary for SW-101

Constituents	9/10/2018	3/26/2019
Heptachlor epoxide		
Hexachlorobenzene		
Hexachlorobutadiene		
Hexachlorocyclopentadiene		
Hexachloroethane		
Hexachloropropene		
Indeno(1,2,3-cd)pyrene		
Isobutanol		
Isodrin		
Isophorone		
Isosafrole		
Kepone		
Lead, total		
Mercury, total		
Methacrylonitrile		
Methapyrilene		
Methoxychlor		
Methyl iodide	<1	<1
Methyl methacrylate		
Methyl methanesulfonate		
Methyl parathion		
Methylene chloride	<5	<5
Naphthalene		
Nickel, total		
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		
Silver, total		
Solids, total suspended		
Styrene	<1	<1
Sulfide, total		
Tetrachloroethylene	<1	<1
Thallium, total		
Thionazin		
Tin, total		
Toluene	<1	<1
Toxaphene		
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		
Vinyl acetate	<5	<5
Vinyl chloride	<1	<1
Xylenes, total	<2	<2
Zinc, total		

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

Table 9

Analytical Data Summary for SW-102

Constituents	Units	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018
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	12.3	<10.0
Acrylonitrile	ug/L	<5	<5	<5	<5		<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2					
Arsenic, total	ug/L	<4	<4	<4	<4					
Barium, total	ug/L	173	165	190	163					
Benzene	ug/L	<1	<1	<1	<1		<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4					
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					
Carbon disulfide	ug/L	<1	<1	<1	<1		<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1		<1	<1	<1	<1
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					
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	1.7	<.8	2.1	<.8					
Copper, total	ug/L	<4	<4	<4	<4					
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
Lead, total	ug/L	<4	<4	<4	<4					
Methyl iodide	ug/L	<1	<1	<1	<1		<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5		<5	<5	<5	<5
Nickel, total	ug/L	14.9	10.7	15.4	9.8					
Selenium, total	ug/L	<4.0	<4.0	4.0	18.4	18.6				
Silver, total	ug/L	<4	<4	<4	<4					
Solids, total suspended	mg/L	24	<2							
Styrene	ug/L	<1	<1	<1	<1		<1	<1	<1	<1
Tetrachloroethylene	ug/L	<1	<1	<1	<1		<1	<1	<1	<1
Thallium, total	ug/L	<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					
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	32.3	<8.0	11.9	<8.0					

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

Table 9

Analytical Data Summary for SW-102

Constituents	9/10/2018	3/26/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<5	<10	<10
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total									
Arsenic, total									
Barium, total									
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total									
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									
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									
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									
Copper, total									
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									
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total									
Selenium, total									
Silver, total									
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									
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									
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									

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

Table 9

Analytical Data Summary for SW-102

Constituents	3/23/2023	3/6/2024	9/18/2024 9/19/2024
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
1,2,3-trichloropropane	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1
2-butanone (mek)	<10	<10	<10
2-hexanone (mbk)	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5
Acetone	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5
Antimony, total			
Arsenic, total			
Barium, total			
Benzene	<1	<1	<1
Beryllium, total			
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Cadmium, total			
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Chlorobenzene	<1	<1	<1
Chloroethane	<1	<1	<1
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chromium, total			
Cis-1,2-dichloroethylene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total			
Copper, total			
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Ethylbenzene	<1	<1	<1
Lead, total			
Methyl iodide	<1	<1	<1
Methylene chloride	<5	<5	<5
Nickel, total			
Selenium, total			
Silver, total			
Solids, total suspended			
Styrene	<1	<1	<1
Tetrachloroethylene	<1	<1	<1
Thallium, total			
Toluene	<1	<1	<1
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			
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total	<2	<2	<2
Zinc, total			

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



Table 9

Analytical Data Summary for SW-103

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016	3/9/2017
(3,4)-methylphenol	ug/L						<8			
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
1,1-dichloropropene	ug/L									
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
1,2,4,5-tetrachlorobenzene	ug/L						<8			
1,2,4-trichlorobenzene	ug/L						<1			
1,2-dibromo-3-chloropropane	ug/L	<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
1,2-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
1,4-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
2-chloronaphthalene	ug/L						<8			
2-chlorophenol	ug/L						<8			
2-hexanone (mbk)	ug/L	<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
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
Acetonitrile	ug/L						<10			
Acetophenone	ug/L						<8			
Acrolein	ug/L						<10			
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5		<5	<5
Aldrin	ug/L						<.05			
Allyl chloride	ug/L						<1			
Alpha-bhc	ug/L						<.05			

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

Table 9

Analytical Data Summary for SW-103

Constituents	9/14/2017	3/12/2018 3/13/2018
(3,4)-methylphenol		
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
1,1-dichloropropene		
1,2,3-trichloropropane	<1	<1
1,2,4,5-tetrachlorobenzene		
1,2,4-trichlorobenzene		
1,2-dibromo-3-chloropropane	<1	<1
1,2-dibromoethane	<1	<1
1,2-dichlorobenzene	<1	<1
1,2-dichloroethane	<1	<1
1,2-dichloropropane	<1	<1
1,2-dinitrobenzene		
1,3,5-trinitrobenzene		
1,3-dichlorobenzene		
1,3-dichloropropane		
1,3-dinitrobenzene		
1,4-dichlorobenzene	<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)	<5	<5
2-chloronaphthalene		
2-chlorophenol		
2-hexanone (mbk)	<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
4-nitroaniline		
4-nitrophenol		
5-nitro-o-toluidine		
7,12-dimethylbenz(a)anthracene		
Acenaphthene		
Acenaphthylene		
Acetone	16.6	<10.0
Acetonitrile		
Acetophenone		
Acrolein		
Acrylonitrile	<5	<5
Aldrin		
Allyl chloride		
Alpha-bhc		

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

Table 9

Analytical Data Summary for SW-103

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016	3/9/2017
Anthracene	ug/L						<8			
Antimony, total	ug/L					<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			
Azobenzene	ug/L						<8			
Barium, total	ug/L					329	466			
Benzene	ug/L	<1	<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			
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
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Butyl benzyl phthalate	ug/L						<8			
Cadmium, total	ug/L					<.8	<.8			
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Chlordane	ug/L						<.1			
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Chlorobenzilate	ug/L						<8			
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
Chloroprene	ug/L						<1			
Chromium, total	ug/L					<8	<8			
Chrysene	ug/L						<8			
Cis-1,2-dichloroethylene	ug/L	<1.0	1.0	6.8	1.0	<1.0	25.2	6.6	<1.0	1.7
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Cobalt, total	ug/L					<.8	2.1			
Copper, total	ug/L					<4	<4			
Cyanide, total	mg/L						<.005			
Delta-bhc	ug/L						<.05			
Diallate	ug/L						<8			
Dibenzo(a,h)anthracene	ug/L						<8			
Dibenzofuran	ug/L						<8			
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1		<1	<1
Dichlorodifluoromethane	ug/L						<1			
Dieldrin	ug/L						<.05			
Diethyl phthalate	ug/L						<8			
Dimethoate	ug/L						<.4			
Dimethylphthalate	ug/L						<8			
Di-n-butyl phthalate	ug/L						<8			
Di-n-octyl phthalate	ug/L						<8			
Dinoseb	ug/L						<.5			
Diphenylamine	ug/L						<8			
Disulfoton	ug/L						<.4			
Endosulfan i	ug/L						<.05			
Endosulfan ii	ug/L						<.05			
Endosulfan sulfate	ug/L						<.05			
Endrin	ug/L						<.05			
Endrin aldehyde	ug/L						<.05			
Ethyl methacrylate	ug/L						<10			
Ethyl methanesulfonate	ug/L						<8			
Ethylbenzene	ug/L	<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			

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

Table 9

Analytical Data Summary for SW-103

Constituents	9/14/2017	3/12/2018 3/13/2018
Anthracene		
Antimony, total		
Arochlor 1016		
Arochlor 1221		
Arochlor 1232		
Arochlor 1242		
Arochlor 1248		
Arochlor 1254		
Arochlor 1260		
Arsenic, total		
Azobenzene		
Barium, total		
Benzene	<1	<1
Benzo(a)anthracene		
Benzo(a)pyrene		
Benzo(b)fluoranthene		
Benzo(g,h,i)perylene		
Benzo(k)fluoranthene		
Benzyl alcohol		
Beryllium, total		
Beta-bhc		
Bis (2-chloroethoxy) methane		
Bis(2-chloroethyl) ether		
Bis(2-chloroisopropyl) ether		
Bis(2-ethylhexyl) phthalate		
Bromochloromethane	<1	<1
Bromodichloromethane	<1	<1
Bromoform	<1	<1
Bromomethane	<1	<1
Butyl benzyl phthalate		
Cadmium, total		
Carbon disulfide	<1	<1
Carbon tetrachloride	<1	<1
Chlordane		
Chlorobenzene	<1	<1
Chlorobenzilate		
Chloroethane	<1	<1
Chloroform	<1	<1
Chloromethane	<1	<1
Chloroprene		
Chromium, total		
Chrysene		
Cis-1,2-dichloroethylene	2.2	4.5
Cis-1,3-dichloropropene	<1	<1
Cobalt, total		
Copper, total		
Cyanide, total		
Delta-bhc		
Diallate		
Dibenzo(a,h)anthracene		
Dibenzofuran		
Dibromochloromethane	<1	<1
Dibromomethane	<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
Famphur		
Fluoranthene		
Fluorene		
Gamma-bhc (lindane)		
Heptachlor		

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

Table 9

Analytical Data Summary for SW-103

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	12/2/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016	3/9/2017
Heptachlor epoxide	ug/L						<.05			
Hexachlorobenzene	ug/L						<.05			
Hexachlorobutadiene	ug/L						<.8			
Hexachlorocyclopentadiene	ug/L						<.8			
Hexachloroethane	ug/L						<.8			
Hexachloropropene	ug/L						<.8			
Indeno(1,2,3-cd)pyrene	ug/L						<.8			
Isobutanol	mg/L						<.1			
Isodrin	ug/L						<.8			
Isophorone	ug/L						<.8			
Isosafrole	ug/L						<.8			
Kepone	ug/L						<.8			
Lead, total	ug/L					<4	<.4			
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
Methyl methacrylate	ug/L						<.1			
Methyl methanesulfonate	ug/L						<.8			
Methyl parathion	ug/L						<.4			
Methylene chloride	ug/L	<.5	<.5	<.5	<.5	<.5	<.5		<.5	<.5
Naphthalene	ug/L						<.8			
Nickel, total	ug/L					4.1	11.7			
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			
Silver, total	ug/L					<4	<.4			
Solids, total suspended	mg/L				6					
Styrene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1	<.1
Sulfide, total	mg/L						<.1			
Tetrachloroethylene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1	<.1
Thallium, total	ug/L					<4	<.4			
Thionazin	ug/L						<.4			
Tin, total	ug/L						<20			
Toluene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1	<.1
Toxaphene	ug/L						<.2			
Trans-1,2-dichloroethylene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1	<.1
Trans-1,3-dichloropropene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1	<.1
Trans-1,4-dichloro-2-butene	ug/L	<.5	<.5	<.5	<.5	<.5	<.5		<.5	<.5
Trichloroethylene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1	<.1
Trichlorofluoromethane	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1	<.1
Vanadium, total	ug/L					<20	<20			
Vinyl acetate	ug/L	<.5	<.5	<.5	<.5	<.5	<.5		<.5	<.5
Vinyl chloride	ug/L	<1.0	<1.0	11.5	<1.0	<1.0	10.7	<1.0	<1.0	1.6
Xylenes, total	ug/L	<.2	<.2	<.2	<.2	<.2	<.2		<.2	<.2
Zinc, total	ug/L					19.4	16.9			

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

Table 9

Analytical Data Summary for SW-103

Constituents	9/14/2017	3/12/2018 3/13/2018
Heptachlor epoxide		
Hexachlorobenzene		
Hexachlorobutadiene		
Hexachlorocyclopentadiene		
Hexachloroethane		
Hexachloropropene		
Indeno(1,2,3-cd)pyrene		
Isobutanol		
Isodrin		
Isophorone		
Isosafrole		
Kepone		
Lead, total		
Mercury, total		
Methacrylonitrile		
Methapyrilene		
Methoxychlor		
Methyl iodide	<1	<1
Methyl methacrylate		
Methyl methanesulfonate		
Methyl parathion		
Methylene chloride	<5	<5
Naphthalene		
Nickel, total		
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		
Silver, total		
Solids, total suspended		
Styrene	<1	<1
Sulfide, total		
Tetrachloroethylene	<1	<1
Thallium, total		
Thionazin		
Tin, total		
Toluene	<1	<1
Toxaphene		
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		
Vinyl acetate	<5	<5
Vinyl chloride	5.4	3.2
Xylenes, total	<2	<2
Zinc, total		

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

**Table 9**

**Analytical Data Summary for SW-104**

Constituents	Units	3/28/2014	9/23/2014 9/24/2014
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	<1	<1
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	<5	<5
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
Benzene	ug/L	<1	<1
Bromochloromethane	ug/L	<1	<1
Bromodichloromethane	ug/L	<1	<1
Bromoform	ug/L	<1	<1
Bromomethane	ug/L	<1	<1
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
Cis-1,2-dichloroethylene	ug/L	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	<2	<2

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

**Table 9**

**Analytical Data Summary for SW-105**

Constituents	Units	3/28/2014	9/23/2014 9/24/2014
1,1,1,2-tetrachloroethane	ug/L	<1	<1
1,1,1-trichloroethane	ug/L	<1	<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	<1	<1
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	<5	<5
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
Benzene	ug/L	<1	<1
Bromochloromethane	ug/L	<1	<1
Bromodichloromethane	ug/L	<1	<1
Bromoform	ug/L	<1	<1
Bromomethane	ug/L	<1	<1
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
Cis-1,2-dichloroethylene	ug/L	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1
Dibromochloromethane	ug/L	<1	<1
Dibromomethane	ug/L	<1	<1
Ethylbenzene	ug/L	<1	<1
Methyl iodide	ug/L	<1	<1
Methylene chloride	ug/L	<5	<5
Styrene	ug/L	<1	<1
Tetrachloroethylene	ug/L	<1	<1
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
Vinyl acetate	ug/L	<5	<5
Vinyl chloride	ug/L	<1	<1
Xylenes, total	ug/L	<2	<2

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



Table 9

Analytical Data Summary for SW-106

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	5/10/2016	9/20/2016 9/21/2016
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1		<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1		<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1		<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1		<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1		<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1		<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1		<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1		<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1		<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1		<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1		<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1		<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1		<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5		<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5		<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5		<5
Acetone	ug/L	<10	<10	<10	<10	<10		<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5		<5
Benzene	ug/L	<1	<1	<1	<1	<1		<1
Bromochloromethane	ug/L	<1	<1	<1	<1	<1		<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1		<1
Bromoform	ug/L	<1	<1	<1	<1	<1		<1
Bromomethane	ug/L	<1	<1	<1	<1	<1		<1
Carbon disulfide	ug/L	<1	<1	<1	<1	<1		<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1		<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1		<1
Chloroethane	ug/L	<1	<1	<1	<1	<1		<1
Chloroform	ug/L	<1	<1	<1	<1	<1		<1
Chloromethane	ug/L	<1	<1	<1	<1	<1		<1
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
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1		<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1		<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1		<1
Methyl iodide	ug/L	<1	<1	<1	<1	<1		<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5		<5
Solids, total suspended	mg/L			5				
Styrene	ug/L	<1	<1	<1	<1	<1		<1
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1		<1
Toluene	ug/L	<1	<1	<1	<1	<1		<1
Trans-1,2-dichloroethylene	ug/L	<1	<1	<1	<1	<1		<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1		<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5		<5
Trichloroethylene	ug/L	<1	<1	<1	<1	<1		<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1		<1
Vinyl acetate	ug/L	<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

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

Table 9

Analytical Data Summary for SW-2B

Constituents	Units	3/28/2014	9/23/2014 9/24/2014	3/18/2015 3/19/2015	8/27/2015 9/2/2015	3/3/2016 3/4/2016	9/20/2016 9/21/2016	3/9/2017	3/12/2018 3/13/2018	9/10/2018
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10	<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	223	229	226	233	238	249	205	227	289
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	<4.0	<.8	<.8	<.8	<.8	<.8	<.8	<2.0	<.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	5.9	4.1	4.3	<4.0	<4.0	<4.0	4.4	5.4	6.0
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	<4
Solids, total suspended	mg/L		<4	<2						
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	<20.0	<16.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	10.4

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

Table 9

Analytical Data Summary for SW-2B

Constituents	3/26/2019	6/5/2019	9/16/2019	3/23/2020 3/24/2020	6/3/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022
1,1,1,2-tetrachloroethane	<5		<1	<1		<1	<1	<1	<1	<1
1,1,1-trichloroethane	<5		<1	<1		<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<5		<1	<1		<1	<1	<1	<1	<1
1,1,2-trichloroethane	<5		<1	<1		<1	<1	<1	<1	<1
1,1-dichloroethane	<5		<1	<1		<1	<1	<1	<1	<1
1,1-dichloroethylene	<5		<1	<1		<1	<1	<1	<1	<1
1,2,3-trichloropropane	<5		<1	<1		<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<5		<1	<5		<5	<5	<5	<5	<5
1,2-dibromoethane	<5		<1	<1		<1	<1	<1	<1	<1
1,2-dichlorobenzene	<5		<1	<1		<1	<1	<1	<1	<1
1,2-dichloroethane	<5		<1	<1		<1	<1	<1	<1	<1
1,2-dichloropropane	<5		<1	<1		<1	<1	<1	<1	<1
1,4-dichlorobenzene	<5		<1	<1		<1	<1	<1	<1	<1
2-butanone (mek)	<25		<5	<5		<5	<5	<5	<10	<10
2-hexanone (mbk)	<25		<5	<5		<5	<5	<5	<5	<5
4-methyl-2-pentanone (mibk)	<25		<5	<5		<5	<5	<5	<5	<5
Acetone	<50		<10	<10		<10	<10	<10	<10	<10
Acrylonitrile	<25		<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	426		238	232		208	194	224	209	<1
Benzene	<5		<1	<1		<1	<1	<1	<1	<1
Beryllium, total	<4		<4	<4		<4	<4	<4	<4	<4
Bromochloromethane	<5		<1	<1		<1	<1	<1	<1	<1
Bromodichloromethane	<5		<1	<1		<1	<1	<1	<1	<1
Bromoform	<5		<1	<1		<1	<1	<1	<1	<1
Bromomethane	<5		<1	<1		<1	<1	<1	<1	<1
Cadmium, total	<8		<8	<8		<8	<8	<8	<8	<8
Carbon disulfide	<5		<1	<1		<1	<1	<1	<1	<1
Carbon tetrachloride	<5		<1	<1		<1	<1	<1	<1	<1
Chlorobenzene	<5		<1	<1		<1	<1	<1	<1	<1
Chloroethane	<5		<1	<1		<1	<1	<1	<1	<1
Chloroform	<5		<1	<1		<1	<1	<1	<1	<1
Chloromethane	<5		<1	<1		<1	<1	<1	<1	<1
Chromium, total	<8		<8	<8		<8	<8	<8	<8	<8
Cis-1,2-dichloroethylene	<5		<1	<1		<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<5		<1	<1		<1	<1	<1	<1	<1
Cobalt, total	<8		<8	<8		<4	<4	.5	.7	<4
Copper, total	<4		<4	<4		<4	<4	<4	<4	<4
Dibromochloromethane	<5		<1	<1		<1	<1	<1	<1	<1
Dibromomethane	<5		<1	<1		<1	<1	<1	<1	<1
Ethylbenzene	<5		<1	<1		<1	<1	<1	<1	<1
Lead, total	<4		<4	<4		<4	<4	<4	<4	<4
Methyl iodide	<5		<1	<1		<1	<1	<1	<1	<1
Methylene chloride	<25		<5	<5		<5	<5	<5	<5	<5
Nickel, total	6.3		5.8	4.4		<4.0	<4.0	4.7	4.6	<5
Selenium, total	7.4	<4.0	<4.0	4.8	<4.0	<4.0	7.1	<4.0	5.1	<4
Silver, total	<4		<4	<4		<4	<4	<4	<4	<4
Solids, total suspended										
Styrene	<5		<1	<1		<1	<1	<1	<1	<1
Tetrachloroethylene	<5		<1	<1		<1	<1	<1	<1	<1
Thallium, total	<2		<2	<2		<2	<2	<2	<2	<2
Toluene	<5		<1	<1		<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene	<5		<1	<1		<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<5		<1	<1		<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<25		<5	<5		<5	<5	<5	<5	<5
Trichloroethylene	<5		<1	<1		<1	<1	<1	<1	<1
Trichlorofluoromethane	<5		<1	<1		<1	<1	<1	<1	<1
Vanadium, total	<20		<20	<20		<20	<20	<20	<20	<20
Vinyl acetate	<25		<5	<5		<5	<5	<5	<5	<5
Vinyl chloride	<5		<1	<1		<1	<1	<1	<1	<1
Xylenes, total	<10		<2	<2		<2	<2	<2	<2	<2
Zinc, total	26.0		<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 SW-2B

Constituents	3/23/2023	3/6/2024	9/18/2024 9/19/2024
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
1,2,3-trichloropropane	<1	<1	<1
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
1,4-dichlorobenzene	<1	<1	<1
2-butanone (mek)	<10	<10	<10
2-hexanone (mbk)	<5	<5	<5
4-methyl-2-pentanone (mibk)	<5	<5	<5
Acetone	<10	<10	<10
Acrylonitrile	<5	<5	<5
Antimony, total	<2		
Arsenic, total	<4		
Barium, total	197		
Benzene	<1	<1	<1
Beryllium, total	<4		
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Cadmium, total	<.8		
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Chlorobenzene	<1	<1	<1
Chloroethane	<1	<1	<1
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chromium, total	<8		
Cis-1,2-dichloroethylene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	<.4		
Copper, total	<4		
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Ethylbenzene	<1	<1	<1
Lead, total	<4		
Methyl iodide	<1	<1	<1
Methylene chloride	<5	<5	<5
Nickel, total	<4.0		
Selenium, total	4.0		
Silver, total	<4		
Solids, total suspended			
Styrene	<1	<1	<1
Tetrachloroethylene	<1	<1	<1
Thallium, total	<2		
Toluene	<1	<1	<1
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		
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total	<2	<2	<2
Zinc, total	<20.0		

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

Table 9

Analytical Data Summary for TILE 1

Constituents	Units	9/20/2016 9/21/2016	11/9/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	6/5/2019	7/17/2019
(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	1.3	1.8	2.6	4.5	5.6	1.7	1.8	<1.0	
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	18.1	<10.0	<10.0	<10.0	<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									

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

Table 9

Analytical Data Summary for TILE 1

Constituents	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023
(3,4)-methylphenol				<8		<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	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene				<8		<8			
1,2,4-trichlorobenzene				<1		<1			
1,2-dibromo-3-chloropropane	<1	<5	<5	<1	<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		<8			
1,3,5-trinitrobenzene				<8		<8			
1,3-dichlorobenzene				<1		<1			
1,3-dichloropropane				<1		<1			
1,3-dinitrobenzene				<8		<8			
1,4-dichlorobenzene	<1.0	1.8	3.7	1.6	2.5	1.4	2.3	1.6	4.5
1,4-naphthoquinone				<8		<8			
1,4-phenylenediamine				<8		<8			
1-naphthylamine				<8		<8			
2,2-dichloropropane				<1		<1			
2,3,4,6-tetrachlorophenol				<8		<8			
2,4,5-t				<.5		<.5			
2,4,5-tp (silvex)				<.5		<.5			
2,4,5-trichlorophenol				<8		<8			
2,4,6-trichlorophenol				<8		<8			
2,4-d				<2		<2			
2,4-dichlorophenol				<8		<8			
2,4-dimethylphenol				<8		<8			
2,4-dinitrophenol				<8		<8			
2,4-dinitrotoluene				<8		<8			
2,6-dichlorophenol				<8		<8			
2,6-dinitrotoluene				<8		<8			
2-acetylaminofluorene				<8		<8			
2-butanone (mek)	<5	<5	<5	<5	<5	<5	<10	<10	<10
2-chloronaphthalene				<8		<8			
2-chlorophenol				<8		<8			
2-hexanone (mbk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene				<8		<8			
2-methylphenol				<8		<8			
2-naphthylamine				<8		<8			
2-nitroaniline				<8		<8			
2-nitrophenol				<8		<8			
3,3'-dichlorobenzidine				<8		<8			
3,3'-dimethylbenzidine				<8		<8			
3-methylcholanthrene				<8		<8			
3-nitroaniline				<8		<8			
4,4'-ddd				<.05		<.05			
4,4'-dde				<.05		<.05			
4,4'-ddt				<.05		<.05			
4,6-dinitro-2-methylphenol				<8		<8			
4-aminobiphenyl				<8		<8			
4-bromophenyl phenyl ether				<8		<8			
4-chloro-3-methylphenol				<8		<8			
4-chloroaniline				<8		<8			
4-chlorophenyl phenyl ether				<8		<8			
4-methyl-2-pentanone (mibk)	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline				<8		<8			
4-nitrophenol				<8		<8			
5-nitro-o-toluidine				<8		<8			
7,12-dimethylbenz(a)anthracene				<8		<8			
Acenaphthene				<8		<8			
Acenaphthylene				<8		<8			
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile				<10		<10			
Acetophenone				<8		<8			
Acrolein				<10		<10			
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin				<.05		<.05			
Allyl chloride				<1		<1			
Alpha-bhc				<.05		<.05			

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

Table 9

Analytical Data Summary for TILE 1

Constituents	3/6/2024	9/18/2024 9/19/2024
(3,4)-methylphenol		
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
1,1-dichloropropene		
1,2,3-trichloropropane	<1	<1
1,2,4,5-tetrachlorobenzene		
1,2,4-trichlorobenzene		
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
1,2-dinitrobenzene		
1,3,5-trinitrobenzene		
1,3-dichlorobenzene		
1,3-dichloropropane		
1,3-dinitrobenzene		
1,4-dichlorobenzene	1.8	3.3
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
2-chloronaphthalene		
2-chlorophenol		
2-hexanone (mbk)	<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
4-nitroaniline		
4-nitrophenol		
5-nitro-o-toluidine		
7,12-dimethylbenz(a)anthracene		
Acenaphthene		
Acenaphthylene		
Acetone	<10.0	<10.0
Acetonitrile		
Acetophenone		
Acrolein		
Acrylonitrile	<5	<5
Aldrin		
Allyl chloride		
Alpha-bhc		

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

Table 9

Analytical Data Summary for TILE 1

Constituents	Units	9/20/2016 9/21/2016	11/9/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	6/5/2019	7/17/2019
Anthracene	ug/L									
Antimony, total	ug/L								<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								5.3	
Azobenzene	ug/L									
Barium, total	ug/L								1010	1580
Benzene	ug/L	<1.0	1.6	2.2	2.7	3.7	<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	
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	
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	3.4	3.6	7.9	5.8	7.2	4.3	3.0	4.9	
Chlorobenzilate	ug/L									
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L									
Chromium, total	ug/L								<8	
Chrysene	ug/L									
Cis-1,2-dichloroethylene	ug/L	7.0	2.8	3.9	<1.0	1.0	<1.0	3.6	5.7	
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L								1.8	
Copper, total	ug/L								5.6	
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									

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



Table 9

Analytical Data Summary for TILE 1

Constituents	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023
Anthracene				<8		<8			
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016				<1		<1			
Arochlor 1221				<2		<2			
Arochlor 1232				<2		<2			
Arochlor 1242				<2		<2			
Arochlor 1248				<2		<2			
Arochlor 1254				<1		<1			
Arochlor 1260				<1		<1			
Arsenic, total	8.9	<4.0	6.5	<4.0	7.0	<4.0	8.2	<4.0	8.7
Azobenzene				<8		<8			
Barium, total	1350	754	2210	1060	1940	774	2660	953	2510
Benzene	<1.0	<1.0	1.9	<1.0	1.1	<1.0	2.1	<1.0	3.0
Benzo(a)anthracene				<8		<8			
Benzo(a)pyrene				<8		<8			
Benzo(b)fluoranthene				<8		<8			
Benzo(g,h,i)perylene				<8		<8			
Benzo(k)fluoranthene				<8		<8			
Benzyl alcohol				<8		<8			
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc				<.05		<.05			
Bis (2-chloroethoxy) methane				<8		<8			
Bis(2-chloroethyl) ether				<8		<8			
Bis(2-chloroisopropyl) ether				<8		<8			
Bis(2-ethylhexyl) phthalate				<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		<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		<1			
Chlorobenzene	4.1	3.9	4.4	2.7	2.7	2.9	3.0	2.9	5.6
Chlorobenzilate				<8		<8			
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene				<1		<1			
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene				<8		<8			
Cis-1,2-dichloroethylene	3.9	3.2	1.7	<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
Cobalt, total	3.6	1.8	3.1	2.9	2.8	2.2	7.6	2.4	3.3
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total				<.005		<.005			
Delta-bhc				<.05		<.05			
Diallate				<8		<8			
Dibenzo(a,h)anthracene				<8		<8			
Dibenzofuran				<8		<8			
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane				<1		<1			
Dieldrin				<.05		<.05			
Diethyl phthalate				<8		<8			
Dimethoate				<.4		<.4			
Dimethylphthalate				<8		<8			
Di-n-butyl phthalate				<8		<8			
Di-n-octyl phthalate				<8		<8			
Dinoseb				<.5		<.5			
Diphenylamine				<8		<8			
Disulfoton				<.4		<.4			
Endosulfan i				<.05		<.05			
Endosulfan ii				<.05		<.05			
Endosulfan sulfate				<.05		<.05			
Endrin				<.05		<.05			
Endrin aldehyde				<.05		<.05			
Ethyl methacrylate				<10		<10			
Ethyl methanesulfonate				<8		<8			
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur				<.4		<.4			
Fluoranthene				<8		<8			
Fluorene				<8		<8			
Gamma-bhc (lindane)				<.05		<.05			
Heptachlor				<.05		<.05			

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

Table 9

Analytical Data Summary for TILE 1

Constituents	3/6/2024	9/18/2024 9/19/2024
Anthracene		
Antimony, total	<2	<2
Arochlor 1016		
Arochlor 1221		
Arochlor 1232		
Arochlor 1242		
Arochlor 1248		
Arochlor 1254		
Arochlor 1260		
Arsenic, total	<4.0	8.8
Azobenzene		
Barium, total	2250	2340
Benzene	<1.0	1.8
Benzo(a)anthracene		
Benzo(a)pyrene		
Benzo(b)fluoranthene		
Benzo(g,h,i)perylene		
Benzo(k)fluoranthene		
Benzyl alcohol		
Beryllium, total	<4	<4
Beta-bhc		
Bis (2-chloroethoxy) methane		
Bis(2-chloroethyl) ether		
Bis(2-chloroisopropyl) ether		
Bis(2-ethylhexyl) phthalate		
Bromochloromethane	<1	<1
Bromodichloromethane	<1	<1
Bromoform	<1	<1
Bromomethane	<1	<1
Butyl benzyl phthalate		
Cadmium, total	<.8	<.8
Carbon disulfide	<1	<1
Carbon tetrachloride	<1	<1
Chlordane		
Chlorobenzene	1.8	4.3
Chlorobenzilate		
Chloroethane	<1	<1
Chloroform	<1.0	<1.0
Chloromethane	<1	<1
Chloroprene		
Chromium, total	<8	<8
Chrysene		
Cis-1,2-dichloroethylene	<1.0	<1.0
Cis-1,3-dichloropropene	<1	<1
Cobalt, total	2.5	3.2
Copper, total	<4.0	<4.0
Cyanide, total		
Delta-bhc		
Diallate		
Dibenzo(a,h)anthracene		
Dibenzofuran		
Dibromochloromethane	<1	<1
Dibromomethane	<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
Famphur		
Fluoranthene		
Fluorene		
Gamma-bhc (lindane)		
Heptachlor		

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

Table 9

Analytical Data Summary for TILE 1

Constituents	Units	9/20/2016 9/21/2016	11/9/2016	3/9/2017	9/14/2017	3/12/2018 3/13/2018	9/10/2018	3/26/2019	6/5/2019	7/17/2019
Heptachlor epoxide	ug/L									
Hexachlorobenzene	ug/L									
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	
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	
Methyl methacrylate	ug/L									
Methyl methanesulfonate	ug/L									
Methyl parathion	ug/L									
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	
Naphthalene	ug/L									
Nickel, total	ug/L								13.4	
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	
Silver, total	ug/L								<4	
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	
Sulfide, total	mg/L									
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	
Thallium, total	ug/L									<2
Thionazin	ug/L									
Tin, total	ug/L									
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	
Toxaphene	ug/L									
Trans-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0
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
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	3.0	3.6	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L								22.2	

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

Table 9

Analytical Data Summary for TILE 1

Constituents	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022	9/13/2022	3/23/2023	9/5/2023
Heptachlor epoxide				<.05		<.05			
Hexachlorobenzene				<.05		<.05			
Hexachlorobutadiene				<8		<8			
Hexachlorocyclopentadiene				<8		<8			
Hexachloroethane				<8		<8			
Hexachloropropene				<8		<8			
Indeno(1,2,3-cd)pyrene				<8		<8			
Isobutanol				<1		<1			
Isodrin				<8		<8			
Isophorone				<8		<8			
Isosafrole				<8		<8			
Kepone				<8		<8			
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total				<.5		<.5			
Methacrylonitrile				<1		<1			
Methapyrilene				<8		<8			
Methoxychlor				<.05		<.05			
Methyl iodide	<1	<1	<1	<2	<1	<2	<1	<1	<1
Methyl methacrylate				<1		<1			
Methyl methanesulfonate				<8		<8			
Methyl parathion				<4		<4			
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene				<8		<8			
Nickel, total	21.2	9.8	35.8	20.8	37.1	14.0	46.1	13.4	43.6
Nitrobenzene				<8		<8			
N-nitrosodiethylamine				<8		<8			
N-nitrosodimethylamine				<8		<8			
N-nitrosodi-n-butylamine				<8		<8			
N-nitroso-di-n-propylamine				<8		<8			
N-nitrosodiphenylamine				<8		<8			
N-nitrosomethylethylamine				<8		<8			
N-nitrosopiperidine				<8		<8			
N-nitrosopyrrolidine				<8		<8			
O,o,o-triethyl phosphorothioate				<.4		<.4			
O-toluidine				<8		<8			
Parathion				<.4		<.4			
P-dimethylaminoazobenzene				<8		<8			
Pentachlorobenzene				<8		<8			
Pentachloronitrobenzene (pcnb)				<8		<8			
Pentachlorophenol				<8		<8			
Phenacetin				<8		<8			
Phenanthrene				<8		<8			
Phenol				<8		<8			
Phorate				<.4		<.4			
Pronamide				<8		<8			
Propionitrile				<10		<10			
Pyrene				<8		<8			
Safrole				<8		<8			
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total				<.1		<.1			
Tetrachloroethylene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Thionazin				<.4		<.4			
Tin, total				<20		<20			
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene				<.2		<.2			
Trans-1,2-dichloroethylene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	26.4	<20.0	24.2	<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 TILE 1

Constituents	3/6/2024	9/18/2024 9/19/2024
Heptachlor epoxide		
Hexachlorobenzene		
Hexachlorobutadiene		
Hexachlorocyclopentadiene		
Hexachloroethane		
Hexachloropropene		
Indeno(1,2,3-cd)pyrene		
Isobutanol		
Isodrin		
Isophorone		
Isosafrole		
Kepone		
Lead, total	<4	<4
Mercury, total		
Methacrylonitrile		
Methapyrilene		
Methoxychlor		
Methyl iodide	<1	<1
Methyl methacrylate		
Methyl methanesulfonate		
Methyl parathion		
Methylene chloride	<5	<5
Naphthalene		
Nickel, total	43.5	43.5
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
Silver, total	<4	<4
Styrene	<1	<1
Sulfide, total		
Tetrachloroethylene	<1	<1
Thallium, total	<2	<2
Thionazin		
Tin, total		
Toluene	<1	<1
Toxaphene		
Trans-1,2-dichloroethylene	<1.0	<1.0
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	<1.0	<1.0
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 TILE 2

Constituents	Units	9/10/2018	3/26/2019	6/5/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022
(3,4)-methylphenol	ug/L							<8		<8
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-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
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							<8		<8
1,2,4-trichlorobenzene	ug/L							<1		<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<5	<5	<1	<5	<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		<8
1,3,5-trinitrobenzene	ug/L							<8		<8
1,3-dichlorobenzene	ug/L							<1		<1
1,3-dichloropropane	ug/L							<1		<1
1,3-dinitrobenzene	ug/L							<8		<8
1,4-dichlorobenzene	ug/L	<1	1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L							<8		<8
1,4-phenylenediamine	ug/L							<8		<8
1-naphthylamine	ug/L							<8		<8
2,2-dichloropropane	ug/L							<1		<1
2,3,4,6-tetrachlorophenol	ug/L							<8		<8
2,4,5-t	ug/L							<.5		<.5
2,4,5-tp (silvex)	ug/L							<.5		<.5
2,4,5-trichlorophenol	ug/L							<8		<8
2,4,6-trichlorophenol	ug/L							<8		<8
2,4-d	ug/L							<2		<2
2,4-dichlorophenol	ug/L							<8		<8
2,4-dimethylphenol	ug/L							<8		<8
2,4-dinitrophenol	ug/L							<8		<8
2,4-dinitrotoluene	ug/L							<8		<8
2,6-dichlorophenol	ug/L							<8		<8
2,6-dinitrotoluene	ug/L							<8		<8
2-acetylaminofluorene	ug/L							<8		<8
2-butanone (mek)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene	ug/L							<8		<8
2-chlorophenol	ug/L							<8		<8
2-hexanone (mbk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L							<8		<8
2-methylphenol	ug/L							<8		<8
2-naphthylamine	ug/L							<8		<8
2-nitroaniline	ug/L							<8		<8
2-nitrophenol	ug/L							<8		<8
3,3'-dichlorobenzidine	ug/L							<8		<8
3,3'-dimethylbenzidine	ug/L							<8		<8
3-methylcholanthrene	ug/L							<8		<8
3-nitroaniline	ug/L							<8		<8
4,4'-ddd	ug/L							<.05		<.05
4,4'-dde	ug/L							<.05		<.05
4,4'-ddt	ug/L							<.05		<.05
4,6-dinitro-2-methylphenol	ug/L							<8		<8
4-aminobiphenyl	ug/L							<8		<8
4-bromophenyl phenyl ether	ug/L							<8		<8
4-chloro-3-methylphenol	ug/L							<8		<8
4-chloroaniline	ug/L							<8		<8
4-chlorophenyl phenyl ether	ug/L							<8		<8
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L							<8		<8
4-nitrophenol	ug/L							<8		<8
5-nitro-o-toluidine	ug/L							<8		<8
7,12-dimethylbenz(a)anthracene	ug/L							<8		<8
Acenaphthene	ug/L							<8		<8
Acenaphthylene	ug/L							<8		<8
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L							<10		<10
Acetophenone	ug/L							<8		<8
Acrolein	ug/L							<10		<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L							<.05		<.05
Allyl chloride	ug/L							<1		<1
Alpha-bhc	ug/L							<.05		<.05

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

Table 9

Analytical Data Summary for TILE 2

Constituents	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
(3,4)-methylphenol					
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethylene	<1	<1	<1	<1	<1
1,1-dichloropropene					
1,2,3-trichloropropane	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene					
1,2,4-trichlorobenzene					
1,2-dibromo-3-chloropropane	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1
1,2-dinitrobenzene					
1,3,5-trinitrobenzene					
1,3-dichlorobenzene					
1,3-dichloropropane					
1,3-dinitrobenzene					
1,4-dichlorobenzene	<1	<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	<10
2-chloronaphthalene					
2-chlorophenol					
2-hexanone (mbk)	<5	<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	<5
4-nitroaniline					
4-nitrophenol					
5-nitro-o-toluidine					
7,12-dimethylbenz(a)anthracene					
Acenaphthene					
Acenaphthylene					
Acetone	<10	<10	<10	<10	<10
Acetonitrile					
Acetophenone					
Acrolein					
Acrylonitrile	<5	<5	<5	<5	<5
Aldrin					
Allyl chloride					
Alpha-bhc					

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

Table 9

Analytical Data Summary for TILE 2

Constituents	Units	9/10/2018	3/26/2019	6/5/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022
Anthracene	ug/L							<8		<8
Antimony, total	ug/L			<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L							<.1		<.1
Arochlor 1221	ug/L							<.2		<.2
Arochlor 1232	ug/L							<.2		<.2
Arochlor 1242	ug/L							<.2		<.2
Arochlor 1248	ug/L							<.2		<.2
Arochlor 1254	ug/L							<.1		<.1
Arochlor 1260	ug/L							<.1		<.1
Arsenic, total	ug/L			<4.0	5.7	<4.0	17.2	<4.0	<4.0	<4.0
Azobenzene	ug/L							<8		<8
Barium, total	ug/L			504	618	459	1060	500	568	504
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L							<8		<8
Benzo(a)pyrene	ug/L							<8		<8
Benzo(b)fluoranthene	ug/L							<8		<8
Benzo(g,h,i)perylene	ug/L							<8		<8
Benzo(k)fluoranthene	ug/L							<8		<8
Benzyl alcohol	ug/L							<8		<8
Beryllium, total	ug/L			<4	<4	<4	<4	<4	<4	<4
Beta-bhc	ug/L							<.05		<.05
Bis (2-chloroethoxy) methane	ug/L							<8		<8
Bis(2-chloroethyl) ether	ug/L							<8		<8
Bis(2-chloroisopropyl) ether	ug/L							<8		<8
Bis(2-ethylhexyl) phthalate	ug/L							<6		<6
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L							<8		<8
Cadmium, total	ug/L			<.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		<.1
Chlorobenzene	ug/L	<1.0	2.0	1.2	2.2	1.0	1.1	<1.0	<1.0	<1.0
Chlorobenzilate	ug/L							<8		<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		<1
Chromium, total	ug/L			<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L							<8		<8
Cis-1,2-dichloroethylene	ug/L	6.6	19.9	18.2	5.6	10.6	1.3	8.1	3.8	2.7
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L			1.8	2.9	1.1	3.9	1.0	2.3	1.2
Copper, total	ug/L			<4	<4	<4	<4	<4	<4	<4
Cyanide, total	mg/L							<.005		<.005
Delta-bhc	ug/L							<.05		<.05
Diallate	ug/L							<8		<8
Dibenzo(a,h)anthracene	ug/L							<8		<8
Dibenzofuran	ug/L							<8		<8
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L							<1		<1
Dieldrin	ug/L							<.05		<.05
Diethyl phthalate	ug/L							<8		<8
Dimethoate	ug/L							<.4		<.4
Dimethylphthalate	ug/L							<8		<8
Di-n-butyl phthalate	ug/L							<8		<8
Di-n-octyl phthalate	ug/L							<8		<8
Dinoseb	ug/L							<.5		<.5
Diphenylamine	ug/L							<8		<8
Disulfoton	ug/L							<.4		<.4
Endosulfan i	ug/L							<.05		<.05
Endosulfan ii	ug/L							<.05		<.05
Endosulfan sulfate	ug/L							<.05		<.05
Endrin	ug/L							<.05		<.05
Endrin aldehyde	ug/L							<.05		<.05
Ethyl methacrylate	ug/L							<10		<10
Ethyl methanesulfonate	ug/L							<8		<8
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L							<.4		<.4
Fluoranthene	ug/L							<8		<8
Fluorene	ug/L							<8		<8
Gamma-bhc (lindane)	ug/L							<.05		<.05
Heptachlor	ug/L							<.05		<.05

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



Table 9

Analytical Data Summary for TILE 2

Constituents	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Anthracene					
Antimony, total	<2	<2	<2	<2	<2
Arochlor 1016					
Arochlor 1221					
Arochlor 1232					
Arochlor 1242					
Arochlor 1248					
Arochlor 1254					
Arochlor 1260					
Arsenic, total	5.5	<4.0	<4.0	<4.0	<4.0
Azobenzene					
Barium, total	860	481	590	528	638
Benzene	<1	<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	<4
Beta-bhc					
Bis (2-chloroethoxy) methane					
Bis(2-chloroethyl) ether					
Bis(2-chloroisopropyl) ether					
Bis(2-ethylhexyl) phthalate					
Bromochloromethane	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1
Butyl benzyl phthalate					
Cadmium, total	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1
Chlordane					
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	1.1
Chlorobenzilate					
Chloroethane	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1
Chloroprene					
Chromium, total	<8	<8	<8	<8	<8
Chrysene					
Cis-1,2-dichloroethylene	4.1	6.2	2.3	6.9	2.1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1
Cobalt, total	6.1	.6	1.5	.8	1.8
Copper, total	<4	<4	<4	<4	<4
Cyanide, total					
Delta-bhc					
Diallate					
Dibenzo(a,h)anthracene					
Dibenzofuran					
Dibromochloromethane	<1	<1	<1	<1	<1
Dibromomethane	<1	<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	<1
Famphur					
Fluoranthene					
Fluorene					
Gamma-bhc (lindane)					
Heptachlor					

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

Table 9

Analytical Data Summary for TILE 2

Constituents	Units	9/10/2018	3/26/2019	6/5/2019	9/16/2019	3/23/2020 3/24/2020	9/2/2020	3/8/2021	9/14/2021	3/28/2022
Heptachlor epoxide	ug/L							<.05		<.05
Hexachlorobenzene	ug/L							<.05		<.05
Hexachlorobutadiene	ug/L							<.8		<.8
Hexachlorocyclopentadiene	ug/L							<.8		<.8
Hexachloroethane	ug/L							<.8		<.8
Hexachloropropene	ug/L							<.8		<.8
Indeno(1,2,3-cd)pyrene	ug/L							<.8		<.8
Isobutanol	mg/L							<.1		<.1
Isodrin	ug/L							<.8		<.8
Isophorone	ug/L							<.8		<.8
Isosafrole	ug/L							<.8		<.8
Kepone	ug/L							<.8		<.8
Lead, total	ug/L			<4	<4	<4	<4	<.4	<4	<.4
Mercury, total	ug/L							<.5		<.5
Methacrylonitrile	ug/L							<.1		<.1
Methapyrilene	ug/L							<.8		<.8
Methoxychlor	ug/L							<.05		<.05
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<.1	<1	<.2
Methyl methacrylate	ug/L							<.1		<.1
Methyl methanesulfonate	ug/L							<.8		<.8
Methyl parathion	ug/L							<.4		<.4
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<.5	<5	<.5
Naphthalene	ug/L							<.8		<.8
Nickel, total	ug/L			6.8	9.4	5.6	11.2	6.6	8.7	5.1
Nitrobenzene	ug/L							<.8		<.8
N-nitrosodiethylamine	ug/L							<.8		<.8
N-nitrosodimethylamine	ug/L							<.8		<.8
N-nitrosodi-n-butylamine	ug/L							<.8		<.8
N-nitroso-di-n-propylamine	ug/L							<.8		<.8
N-nitrosodiphenylamine	ug/L							<.8		<.8
N-nitrosomethylethylamine	ug/L							<.8		<.8
N-nitrosopiperidine	ug/L							<.8		<.8
N-nitrosopyrrolidine	ug/L							<.8		<.8
O,o,o-triethyl phosphorothioate	ug/L							<.4		<.4
O-toluidine	ug/L							<.8		<.8
Parathion	ug/L							<.4		<.4
P-dimethylaminoazobenzene	ug/L							<.8		<.8
Pentachlorobenzene	ug/L							<.8		<.8
Pentachloronitrobenzene (pcnb)	ug/L							<.8		<.8
Pentachlorophenol	ug/L							<.8		<.8
Phenacetin	ug/L							<.8		<.8
Phenanthrene	ug/L							<.8		<.8
Phenol	ug/L							<.8		<.8
Phorate	ug/L							<.4		<.4
Pronamide	ug/L							<.8		<.8
Propionitrile	ug/L							<10		<10
Pyrene	ug/L							<.8		<.8
Safrole	ug/L							<.8		<.8
Selenium, total	ug/L			<4	<4	<4	<4	<.4	<4	<.4
Silver, total	ug/L			<4	<4	<4	<4	<.4	<4	<.4
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<.1	<1	<.1
Sulfide, total	mg/L							<.1		<.1
Tetrachloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<.1	<1	<.1
Thallium, total	ug/L			<2	<2	<2	<2	<.2	<2	<.2
Thionazin	ug/L							<.4		<.4
Tin, total	ug/L							<20		<20
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<.1	<1	<.1
Toxaphene	ug/L							<.2		<.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
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<.5	<5	<.5
Vinyl chloride	ug/L	<1.0	6.2	<1.0	8.3	3.5	4.7	2.4	3.3	1.3
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<.2	<2	<.2
Zinc, total	ug/L			8.7	<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 TILE 2

Constituents	9/13/2022	3/23/2023	9/5/2023	3/6/2024	9/18/2024 9/19/2024
Heptachlor epoxide					
Hexachlorobenzene					
Hexachlorobutadiene					
Hexachlorocyclopentadiene					
Hexachloroethane					
Hexachloropropene					
Indeno(1,2,3-cd)pyrene					
Isobutanol					
Isodrin					
Isophorone					
Isosafrole					
Kepone					
Lead, total	<4	<4	<4	<4	<4
Mercury, total					
Methacrylonitrile					
Methapyrilene					
Methoxychlor					
Methyl iodide	<1	<1	<1	<1	<1
Methyl methacrylate					
Methyl methanesulfonate					
Methyl parathion					
Methylene chloride	<5	<5	<5	<5	<5
Naphthalene					
Nickel, total	11.7	4.3	7.7	5.8	8.2
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	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4
Styrene	<1	<1	<1	<1	<1
Sulfide, total					
Tetrachloroethylene	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2
Thionazin					
Tin, total					
Toluene	<1	<1	<1	<1	<1
Toxaphene					
Trans-1,2-dichloroethylene	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5
Trichloroethylene	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5
Vinyl chloride	1.6	1.9	1.6	1.0	2.7
Xylenes, total	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0

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

Table 10 – Historic SSI and SSL

**Table 10**  
**Historic SSI & SSL**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

KEY:	SSI	SSL LCL>GWPS	SSL UCL>GWPS
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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)
Tile2	Vinyl Chloride	9/10/2018	<1.0	---	---	2
Tile2	Vinyl Chloride	3/26/2019	<b>6.20</b>	---	---	2
Tile2	Vinyl Chloride	6/5/2019	<1.0	---	---	2
Tile2	Vinyl Chloride	9/16/2019	<b>8.30</b>	0.000	<b>8.569</b>	2
Tile2	Vinyl Chloride	3/24/2020	<b>3.50</b>	0.649	<b>8.601</b>	2
Tile2	Vinyl Chloride	9/2/2020	<b>4.70</b>	0.455	<b>8.045</b>	2
Tile2	Vinyl Chloride	3/8/2021	<b>2.40</b>	1.712	<b>7.738</b>	2
Tile2	Vinyl Chloride	9/14/2021	<b>3.30</b>	<b>2.362</b>	4.588	2
Tile2	Vinyl Chloride	3/28/2022	<b>1.30</b>	1.233	<b>4.617</b>	2
Tile2	Vinyl Chloride	9/13/2022	<b>1.60</b>	1.096	<b>3.204</b>	2
Tile2	Vinyl Chloride	3/23/2023	<b>1.90</b>	0.984	<b>3.066</b>	2
Tile2	Vinyl Chloride	9/5/2023	<b>1.60</b>	1.312	1.888	2
Tile2	Vinyl Chloride	3/6/2024	<b>1.00</b>	1.081	1.969	2
Tile2	Vinyl Chloride	9/18/2024	<b>2.70</b>	0.968	<b>2.632</b>	2

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

Table 11 – Corrective Action Trend Analysis

**Table 11**  
**Corrective Action Trend Analysis**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

Monitoring Well	Compound	Sample Date	Current Condition	Trend	N	Projected Year to Completion (IAC 113.10(9)"e"
Tile2	Vinyl Chloride	9/10/2018	No-SSI	NA	<b>1</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	3/26/2019	SSI	NA	<b>2</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	6/5/2019	No-SSI	NA	<b>3</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	9/16/2019	SSI	NA	<b>4</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	3/24/2020	SSI	NA	<b>5</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	9/2/2020	SSI	NA	<b>6</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	3/8/2021	SSI	NA	<b>7</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	9/14/2021	<b>SSL</b>	decreasing	<b>8</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	3/28/2022	<b>SSL</b>	decreasing	<b>9</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	9/13/2022	<b>SSL</b>	decreasing	<b>10</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	3/23/2023	<b>SSL</b>	decreasing	<b>11</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	9/5/2023	<b>SSL</b>	decreasing	<b>12</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	3/6/2024	<b>SSL</b>	decreasing	<b>13</b>	Complete - Treated in PECS
Tile2	Vinyl Chloride	9/18/2024	<b>SSL</b>	decreasing	<b>14</b>	Complete - Treated in PECS

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

Table 12 – Passive Engineered Conveyance Structure Monitoring Results (SW-102)



Key

Exceeds GWPS

**Table 12 - PECS Testing Results**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

PECS Monitoring Point	Compound	Date	Result (ug/L)	GWPS Limit (ug/L)
SW-102	1,1-dichloroethane	9/20/2016	<1.0	140
SW-102	1,1-dichloroethane	3/9/2017	<1.0	140
SW-102	1,1-dichloroethane	9/14/2017	<1.0	140
SW-102	1,1-dichloroethane	3/12/2018	<1.0	140
SW-102	1,1-dichloroethane	9/10/2018	<1.0	140
SW-102	1,1-dichloroethane	3/26/2019	<1.0	140
SW-102	1,1-dichloroethane	9/16/2019	<1.0	140
SW-102	1,1-dichloroethane	3/24/2020	<1.0	140
SW-102	1,1-dichloroethane	9/2/2020	<1.0	140
SW-102	1,1-dichloroethane	3/8/2021	<1.0	140
SW-102	1,1-dichloroethane	9/14/2021	<1.0	140
SW-102	1,1-dichloroethane	3/28/2022	<1.0	140
SW-102	1,1-dichloroethane	9/13/2022	<1.0	140
SW-102	1,1-dichloroethane	3/23/2023	<1.0	140
SW-102	1,1-dichloroethane	9/5/2023	Dry	140
SW-102	1,1-dichloroethane	3/6/2024	<1.0	140
SW-102	1,1-dichloroethane	9/18/2024	<1.0	140
SW-102	1,2-dichloropropane	9/20/2016	<1.0	5
SW-102	1,2-dichloropropane	3/9/2017	<1.0	5
SW-102	1,2-dichloropropane	9/14/2017	<1.0	5
SW-102	1,2-dichloropropane	3/12/2018	<1.0	5
SW-102	1,2-dichloropropane	9/10/2018	<1.0	5
SW-102	1,2-dichloropropane	3/26/2019	<1.0	5
SW-102	1,2-dichloropropane	9/16/2019	<1.0	5
SW-102	1,2-dichloropropane	3/24/2020	<1.0	5
SW-102	1,2-dichloropropane	9/2/2020	<1.0	5
SW-102	1,2-dichloropropane	3/8/2021	<1.0	5
SW-102	1,2-dichloropropane	9/14/2021	<1.0	5
SW-102	1,2-dichloropropane	3/28/2022	<1.0	5
SW-102	1,2-dichloropropane	9/13/2022	<1.0	5
SW-102	1,2-dichloropropane	3/23/2023	<1.0	5
SW-102	1,2-dichloropropane	9/5/2023	Dry	5
SW-102	1,2-dichloropropane	3/6/2024	<1.0	5
SW-102	1,2-dichloropropane	9/18/2024	<1.0	5

Key

Exceeds GWPS

**Table 12 - PECS Testing Results  
Annual Water Quality Report  
SCILA Sanitary Landfill  
Permit No. 61-SDP-01-78P**

PECS Monitoring Point	Compound	Date	Result (ug/L)	GWPS Limit (ug/L)
SW-102	1,4-dichlorobenzene	9/20/2016	<1.0	75
SW-102	1,4-dichlorobenzene	3/9/2017	<1.0	75
SW-102	1,4-dichlorobenzene	9/14/2017	<1.0	75
SW-102	1,4-dichlorobenzene	3/12/2018	<1.0	75
SW-102	1,4-dichlorobenzene	9/10/2018	<1.0	75
SW-102	1,4-dichlorobenzene	3/26/2019	<1.0	75
SW-102	1,4-dichlorobenzene	9/16/2019	<1.0	75
SW-102	1,4-dichlorobenzene	3/24/2020	<1.0	75
SW-102	1,4-dichlorobenzene	9/2/2020	<1.0	75
SW-102	1,4-dichlorobenzene	3/8/2021	<1.0	75
SW-102	1,4-dichlorobenzene	9/14/2021	<1.0	75
SW-102	1,4-dichlorobenzene	3/28/2022	<1.0	75
SW-102	1,4-dichlorobenzene	9/13/2022	<1.0	75
SW-102	1,4-dichlorobenzene	3/23/2023	<1.0	75
SW-102	1,4-dichlorobenzene	9/5/2023	Dry	75
SW-102	1,4-dichlorobenzene	3/6/2024	<1.0	75
SW-102	1,4-dichlorobenzene	9/18/2024	<1.0	75
SW-102	benzene	9/20/2016	<1.0	5
SW-102	benzene	3/9/2017	<1.0	5
SW-102	benzene	9/14/2017	<1.0	5
SW-102	benzene	3/12/2018	<1.0	5
SW-102	benzene	9/10/2018	<1.0	5
SW-102	benzene	3/26/2019	<1.0	5
SW-102	benzene	9/16/2019	<1.0	5
SW-102	benzene	3/24/2020	<1.0	5
SW-102	benzene	9/2/2020	<1.0	5
SW-102	benzene	3/8/2021	<1.0	5
SW-102	benzene	9/14/2021	<1.0	5
SW-102	benzene	3/28/2022	<1.0	5
SW-102	benzene	9/13/2022	<1.0	5
SW-102	benzene	3/23/2023	<1.0	5
SW-102	benzene	9/5/2023	Dry	5
SW-102	benzene	3/6/2024	<1.0	5
SW-102	benzene	9/18/2024	<1.0	5

Key

Exceeds GWPS

**Table 12 - PECS Testing Results  
Annual Water Quality Report  
SCILA Sanitary Landfill  
Permit No. 61-SDP-01-78P**

PECS Monitoring Point	Compound	Date	Result (ug/L)	GWPS Limit (ug/L)
SW-102	chlorobenzene	9/20/2016	<1.0	100
SW-102	chlorobenzene	3/9/2017	<1.0	100
SW-102	chlorobenzene	9/14/2017	<1.0	100
SW-102	chlorobenzene	3/12/2018	<1.0	100
SW-102	chlorobenzene	9/10/2018	<1.0	100
SW-102	chlorobenzene	3/26/2019	<1.0	100
SW-102	chlorobenzene	9/16/2019	<1.0	100
SW-102	chlorobenzene	3/24/2020	<1.0	100
SW-102	chlorobenzene	9/2/2020	<1.0	100
SW-102	chlorobenzene	3/8/2021	<1.0	100
SW-102	chlorobenzene	9/14/2021	<1.0	100
SW-102	chlorobenzene	3/28/2022	<1.0	100
SW-102	chlorobenzene	9/13/2022	<1.0	100
SW-102	chlorobenzene	3/23/2023	<1.0	100
SW-102	chlorobenzene	9/5/2023	Dry	100
SW-102	chlorobenzene	3/6/2024	<1.0	100
SW-102	chlorobenzene	9/18/2024	<1.0	100
SW-102	cis-1,2-DCE	9/20/2016	<1.0	70
SW-102	cis-1,2-DCE	3/9/2017	<1.0	70
SW-102	cis-1,2-DCE	9/14/2017	<1.0	70
SW-102	cis-1,2-DCE	3/12/2018	<1.0	70
SW-102	cis-1,2-DCE	9/10/2018	<1.0	70
SW-102	cis-1,2-DCE	3/26/2019	<1.0	70
SW-102	cis-1,2-DCE	9/16/2019	<1.0	70
SW-102	cis-1,2-DCE	3/24/2020	<1.0	70
SW-102	cis-1,2-DCE	9/2/2020	<1.0	70
SW-102	cis-1,2-DCE	3/8/2021	<1.0	70
SW-102	cis-1,2-DCE	9/14/2021	<1.0	70
SW-102	cis-1,2-DCE	3/28/2022	<1.0	70
SW-102	cis-1,2-DCE	9/13/2022	<1.0	70
SW-102	cis-1,2-DCE	3/23/2023	<1.0	70
SW-102	cis-1,2-DCE	9/5/2023	Dry	70
SW-102	cis-1,2-DCE	3/6/2024	Dry	70
SW-102	cis-1,2-DCE	9/18/2024	Dry	70

Key

Exceeds GWPS

**Table 12 - PECS Testing Results  
Annual Water Quality Report  
SCILA Sanitary Landfill  
Permit No. 61-SDP-01-78P**

PECS Monitoring Point	Compound	Date	Result (ug/L)	GWPS Limit (ug/L)
SW-102	trans-1,2-DCE	9/20/2016	<1.0	100
SW-102	trans-1,2-DCE	3/9/2017	<1.0	100
SW-102	trans-1,2-DCE	9/14/2017	<1.0	100
SW-102	trans-1,2-DCE	3/12/2018	<1.0	100
SW-102	trans-1,2-DCE	9/10/2018	<1.0	100
SW-102	trans-1,2-DCE	3/26/2019	<1.0	100
SW-102	trans-1,2-DCE	9/16/2019	<1.0	100
SW-102	trans-1,2-DCE	3/24/2020	<1.0	100
SW-102	trans-1,2-DCE	9/2/2020	<1.0	100
SW-102	trans-1,2-DCE	3/8/2021	<1.0	100
SW-102	trans-1,2-DCE	9/14/2021	<1.0	100
SW-102	trans-1,2-DCE	3/28/2022	<1.0	100
SW-102	trans-1,2-DCE	9/13/2022	<1.0	100
SW-102	trans-1,2-DCE	3/23/2023	<1.0	100
SW-102	trans-1,2-DCE	9/5/2023	Dry	100
SW-102	trans-1,2-DCE	3/6/2024	<1.0	100
SW-102	trans-1,2-DCE	9/18/2024	<1.0	100
SW-102	TCE	9/20/2016	<1.0	5
SW-102	TCE	3/9/2017	<1.0	5
SW-102	TCE	9/14/2017	<1.0	5
SW-102	TCE	3/12/2018	<1.0	5
SW-102	TCE	9/10/2018	<1.0	5
SW-102	TCE	3/26/2019	<1.0	5
SW-102	TCE	9/16/2019	<1.0	5
SW-102	TCE	3/24/2020	<1.0	5
SW-102	TCE	9/2/2020	<1.0	5
SW-102	TCE	3/8/2021	<1.0	5
SW-102	TCE	9/14/2021	<1.0	5
SW-102	TCE	3/28/2022	<1.0	5
SW-102	TCE	9/13/2022	<1.0	5
SW-102	TCE	3/23/2023	<1.0	5
SW-102	TCE	9/5/2023	Dry	5
SW-102	TCE	3/6/2024	<1.0	5
SW-102	TCE	9/18/2024	<1.0	5

Key

Exceeds GWPS

**Table 12 - PECS Testing Results**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

PECS Monitoring Point	Compound	Date	Result (ug/L)	GWPS Limit (ug/L)
SW-102	Vinyl Chloride	9/20/2016	<1.0	2
SW-102	Vinyl Chloride	3/9/2017	<1.0	2
SW-102	Vinyl Chloride	9/14/2017	<1.0	2
SW-102	Vinyl Chloride	3/12/2018	<1.0	2
SW-102	Vinyl Chloride	9/10/2018	<1.0	2
SW-102	Vinyl Chloride	3/26/2019	<1.0	2
SW-102	Vinyl Chloride	9/16/2019	<1.0	2
SW-102	Vinyl Chloride	3/24/2020	<1.0	2
SW-102	Vinyl Chloride	9/2/2020	<1.0	2
SW-102	Vinyl Chloride	3/8/2021	<1.0	2
SW-102	Vinyl Chloride	9/14/2021	<1.0	2
SW-102	Vinyl Chloride	3/28/2022	<1.0	2
SW-102	Vinyl Chloride	9/13/2022	<1.0	2
SW-102	Vinyl Chloride	3/23/2023	<1.0	2
SW-102	Vinyl Chloride	9/5/2023	Dry	2
SW-102	Vinyl Chloride	3/6/2024	<1.0	2
SW-102	Vinyl Chloride	9/18/2024	<1.0	2

Table 13 – CAMP Wells MW-31 and MW-32

Key  
Exceeds GWPS

**Table 13 (CAMP)**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

Monitoring Well	Compound	Date	Result (ug/L)	GWPS Limit (ug/L)
MW-31	1,4-dichlorobenzene	9/20/2016	5.20	75
MW-31	1,4-dichlorobenzene	3/9/2017	6.20	75
MW-31	1,4-dichlorobenzene	9/14/2017	6.10	75
MW-31	1,4-dichlorobenzene	3/12/2018	6.30	75
MW-31	1,4-dichlorobenzene	9/10/2018	3.80	75
MW-31	1,4-dichlorobenzene	3/26/2019	6.00	75
MW-31	1,4-dichlorobenzene	9/16/2019	5.00	75
MW-31	1,4-dichlorobenzene	3/24/2020	Dry	75
MW-31	1,4-dichlorobenzene	9/2/2020	4.80	75
MW-31	1,4-dichlorobenzene	3/8/2021	4.60	75
MW-31	1,4-dichlorobenzene	3/28/2022	4.80	75
MW-31	1,4-dichlorobenzene	3/23/2023	3.50	75
MW-31	1,4-dichlorobenzene	9/18/2024	1.00	75
MW-31	benzene	9/20/2016	3.30	5
MW-31	benzene	3/9/2017	5.00	5
MW-31	benzene	9/14/2017	4.00	5
MW-31	benzene	3/12/2018	5.00	5
MW-31	benzene	9/10/2018	2.10	5
MW-31	benzene	3/26/2019	1.50	5
MW-31	benzene	9/16/2019	1.50	5
MW-31	benzene	3/24/2020	Dry	5
MW-31	benzene	9/2/2020	1.30	5
MW-31	benzene	3/8/2021	1.20	5
MW-31	benzene	3/28/2022	1.40	5
MW-31	benzene	3/23/2023	1.40	5
MW-31	benzene	9/18/2024	<1.0	5
MW-31	chlorobenzene	9/20/2016	7.00	100
MW-31	chlorobenzene	3/9/2017	8.40	100
MW-31	chlorobenzene	9/14/2017	8.60	100
MW-31	chlorobenzene	3/12/2018	8.60	100
MW-31	chlorobenzene	9/10/2018	6.20	100
MW-31	chlorobenzene	3/26/2019	5.90	100
MW-31	chlorobenzene	9/16/2019	4.50	100
MW-31	chlorobenzene	3/24/2020	Dry	100
MW-31	chlorobenzene	9/2/2020	2.70	100
MW-31	chlorobenzene	3/8/2021	3.00	100
MW-31	chlorobenzene	3/28/2022	2.90	100
MW-31	chlorobenzene	3/23/2023	1.90	100
MW-31	chlorobenzene	9/18/2024	<1.0	100
MW-31	cis-1,2-DCE	9/20/2016	<1.0	70
MW-31	cis-1,2-DCE	3/9/2017	<1.0	70
MW-31	cis-1,2-DCE	9/14/2017	<1.0	70
MW-31	cis-1,2-DCE	3/12/2018	2.50	70
MW-31	cis-1,2-DCE	9/10/2018	<1.0	70
MW-31	cis-1,2-DCE	3/26/2019	4.10	70
MW-31	cis-1,2-DCE	9/16/2019	2.30	70
MW-31	cis-1,2-DCE	3/24/2020	Dry	70
MW-31	cis-1,2-DCE	9/2/2020	<1.0	70
MW-31	cis-1,2-DCE	3/8/2021	1.70	70
MW-31	cis-1,2-DCE	3/28/2022	<1.0	70
MW-31	cis-1,2-DCE	3/23/2023	<1.0	70
MW-31	cis-1,2-DCE	9/18/2024	<1.0	70
MW-31	Vinyl Chloride	9/20/2016	<1.0	2
MW-31	Vinyl Chloride	3/9/2017	<1.0	2
MW-31	Vinyl Chloride	9/14/2017	1.60	2
MW-31	Vinyl Chloride	3/12/2018	2.20	2
MW-31	Vinyl Chloride	9/10/2018	<1.0	2
MW-31	Vinyl Chloride	3/26/2019	2.10	2
MW-31	Vinyl Chloride	9/16/2019	1.00	2
MW-31	Vinyl Chloride	3/24/2020	Dry	2
MW-31	Vinyl Chloride	9/2/2020	<1.0	2
MW-31	Vinyl Chloride	3/8/2021	1.90	2
MW-31	Vinyl Chloride	3/28/2022	<1.0	2
MW-31	Vinyl Chloride	3/23/2023	<1.0	2
MW-31	Vinyl Chloride	9/18/2024	<1.0	2
MW-31	Xylenes	9/20/2016	<1.0	10000
MW-31	Xylenes	3/9/2017	3.00	10000
MW-31	Xylenes	9/14/2017	<1.0	10000
MW-31	Xylenes	3/12/2018	<1.0	10000
MW-31	Xylenes	9/10/2018	<1.0	10000
MW-31	Xylenes	3/26/2019	2.00	10000
MW-31	Xylenes	9/16/2019	<1.0	10000
MW-31	Xylenes	3/24/2020	Dry	10000
MW-31	Xylenes	9/2/2020	<2.0	10000
MW-31	Xylenes	3/8/2021	<2.0	10000
MW-31	Xylenes	3/28/2022	<2.0	10000





Key

Exceeds GWPS

**Table 13 (CAMP)**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

Monitoring Well	Compound	Date	Result (ug/L)	GWPS Limit (ug/L)
MW-32	chlorobenzene	9/20/2016	<b>1.60</b>	100
MW-32	chlorobenzene	3/9/2017	<b>2.70</b>	100
MW-32	chlorobenzene	9/14/2017	<b>2.70</b>	100
MW-32	chlorobenzene	3/12/2018	<b>3.90</b>	100
MW-32	chlorobenzene	9/10/2018	<b>1.70</b>	100
MW-32	chlorobenzene	3/26/2019	<b>1.10</b>	100
MW-32	chlorobenzene	9/16/2019	<b>3.00</b>	100
MW-32	chlorobenzene	3/24/2020	<b>2.80</b>	100
MW-32	chlorobenzene	9/2/2020	<b>2.00</b>	100
MW-32	chlorobenzene	3/8/2021	<b>1.20</b>	100
MW-32	chlorobenzene	3/28/2022	<b>2.50</b>	100
MW-32	chlorobenzene	3/23/2023	<1.0	100
MW-32	chlorobenzene	3/6/2024	<b>2.20</b>	100
MW-32	cis-1,2-DCE	9/20/2016	<b>1.90</b>	70
MW-32	cis-1,2-DCE	3/9/2017	<b>2.40</b>	70
MW-32	cis-1,2-DCE	9/14/2017	<b>1.00</b>	70
MW-32	cis-1,2-DCE	3/12/2018	<1.0	70
MW-32	cis-1,2-DCE	9/10/2018	<1.0	70
MW-32	cis-1,2-DCE	3/26/2019	<b>1.60</b>	70
MW-32	cis-1,2-DCE	9/16/2019	<b>2.90</b>	70
MW-32	cis-1,2-DCE	3/24/2020	<b>1.50</b>	70
MW-32	cis-1,2-DCE	9/2/2020	<1.0	70
MW-32	cis-1,2-DCE	3/8/2021	<1.0	70
MW-32	cis-1,2-DCE	3/28/2022	<b>1.00</b>	70
MW-32	cis-1,2-DCE	3/23/2023	<1.0	70
MW-32	cis-1,2-DCE	3/6/2024	<1.0	70
MW-32	Vinyl Chloride	9/20/2016	<1.0	2
MW-32	Vinyl Chloride	3/9/2017	<b>1.20</b>	2
MW-32	Vinyl Chloride	9/14/2017	<1.0	2
MW-32	Vinyl Chloride	3/12/2018	<1.0	2
MW-32	Vinyl Chloride	9/10/2018	<1.0	2
MW-32	Vinyl Chloride	3/26/2019	<1.0	2
MW-32	Vinyl Chloride	9/16/2019	<1.0	2
MW-32	Vinyl Chloride	3/24/2020	<1.0	2
MW-32	Vinyl Chloride	9/2/2020	<1.0	2
MW-32	Vinyl Chloride	3/8/2021	<1.0	2
MW-32	Vinyl Chloride	3/28/2022	<1.0	2

Table 14 – CAMP Leachate Well LW-26 Leachate Quality Over Time

Table 14  
**Leachate Well LW-26 - Leachate Quality over Time**  
 Annual Water Quality Report  
 SCILA Sanitary Landfill  
 Permit No. 61-SDP-01-78P

Sample Date	BOD		Alkalinity		Nitrogen (NH3)		pH		Low GWPS	High GWPS	TDS Concentration mg/L	chloride		Sulfate		Benzene		Ethyl Benzene		Xylene		1,4-dichlorobenzene		2-Butanone (MEK)		Chlorobenzene		Cobalt		Methane		
	Concentration mg/L	GWPS	Concentration mg/L	GWPS	Concentration mg/L	GWPS	Concentration mg/L	GWPS				Concentration mg/L	GWPS	Concentration mg/L	GWPS	Concentration mg/L	GWPS	Concentration mg/L	GWPS	Concentration ug/L	GWPS	Concentration ug/L	GWPS	Concentration ug/L	GWPS	Concentration ug/L	GWPS	Concentration ug/L	GWPS	Concentration ug/L	GWPS	Concentration mg/L
4/14/2020	23	none	1410	none	164	30	7	5	9	2300	none	867	none	147	250			5	5	700	10000			75	75	4000	100			2.1	none	
9/2/2020	46	none	1890	none	235	30	7	5	9	3080	none	1040	none	140	250	4.1	5	1	5	700	3.7	10000	14	75	9.4	4000	23.9	100	14.6	2.1	6.96	none
3/11/2021	31	none	1160	none	123	30	6.9	5	9	1990	none	678	none	67.4	250	3.3	5	0.5	5	700	2.6	10000	8.2	75	2.5	4000	13.3	100	15	2.1	5.04	none
3/28/2022	8	none	240	none	11.4	30	6.3	5	9	350	none	75.4	none	34.8	250	2.3	5	0.5	5	700	1	10000	7.1	75	2.5	4000	11.5	100	1	2.1	2.71	none
3/23/2023	24	none	473	none	38.2	30	6.7	5	9	732	none	259	none	4	250	2.4	5	0.5	5	700	2.8	10000	5.6	75	5	4000	9.2	100	5.6	2.1	1.93	none
4/1/2024	56	none	1520	none	252	30	7	5	9	2350	none		none	16.2	250	9.7	5	0.5	5	700	1	10000	3.7	75	5	4000	8.2	100	11.2	2.1	1.26	none

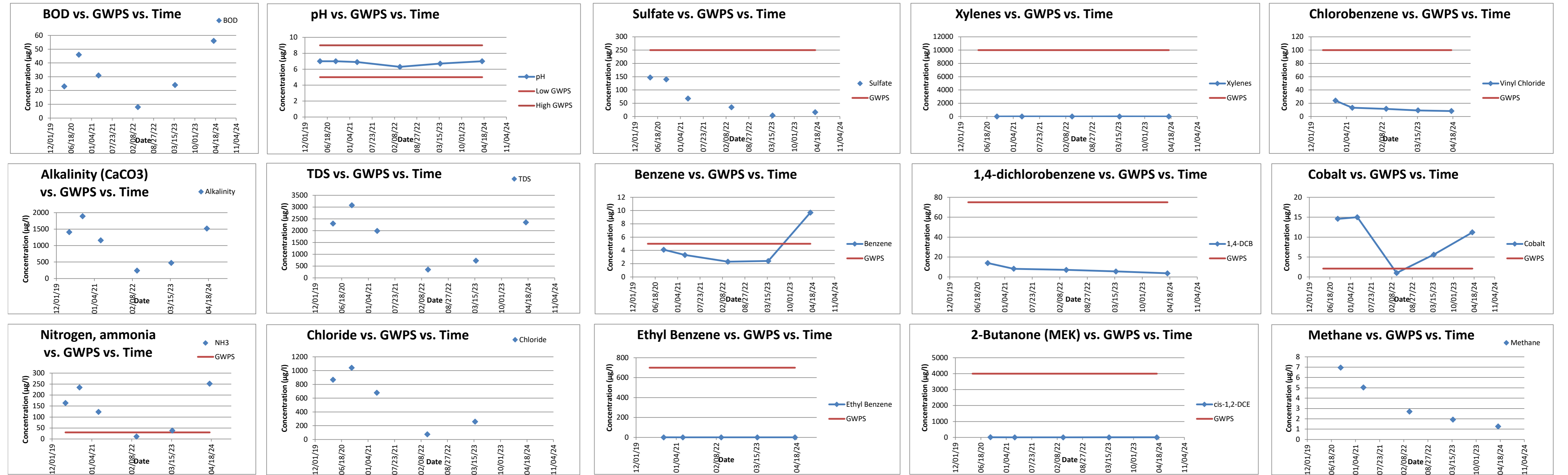


Table 15 – CAMP Vent Gas Evaluation Over Time

**Table 15**  
**SRAMP Vent Gas Evaluation**  
**Annual Water Quality Report**  
 SCILA Sanitary Landfill  
 Permit No. 61-SDP-01-78P

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

Date	Vent 1	Vent 2	Vent 3	Vent 4	Vent 5	Vent 6
8/18/2020	43.0	62.0	38.0	12.0	13.0	65.0
9/2/2020	18.0	26.0	7.0	18.0	18.0	56.0
12/28/2020	6.0	17.0	0.0	5.0	4.0	61.0
3/8/2021	0.0	0.0	3.0	3.0	0.0	79.0
6/4/2021	44.0	86.0	0.0	50.0	50.0	87.0
9/14/2021	31.4	44.0	0.0	37.1	20.1	101
12/1/2021	78.9	37.2	6.6	38.4	40.5	99.9
3/28/2022	101	101	4.4	92.6	97.3	101
6/20/2022	0.0	94	0.0	57.2	38.0	101
9/13/2022	7.8	101	31.1	80.7	50.0	101
12/1/2022	8.6	44.7	5.8	44.0	39.6	101
3/23/2023	0.0	35.1	14.2	38.6	41.9	32.3
6/7/2023	0.0	101	31.0	61.1	101	101
9/5/2023	2.8	38.8	0.0	35.7	41.2	101
12/14/2023	2.0	34.7	5.5	61.3	45.1	101
3/6/2024	4.7	88.7	50.0	64.5	13.6	101
6/3/2024	0.0	101	5.6	101	101	101
9/18/2024	0.0	101	0.0	55.5	68.9	101
12/9/2024	0.0	67.7	0.0	82.1	57.9	84.3

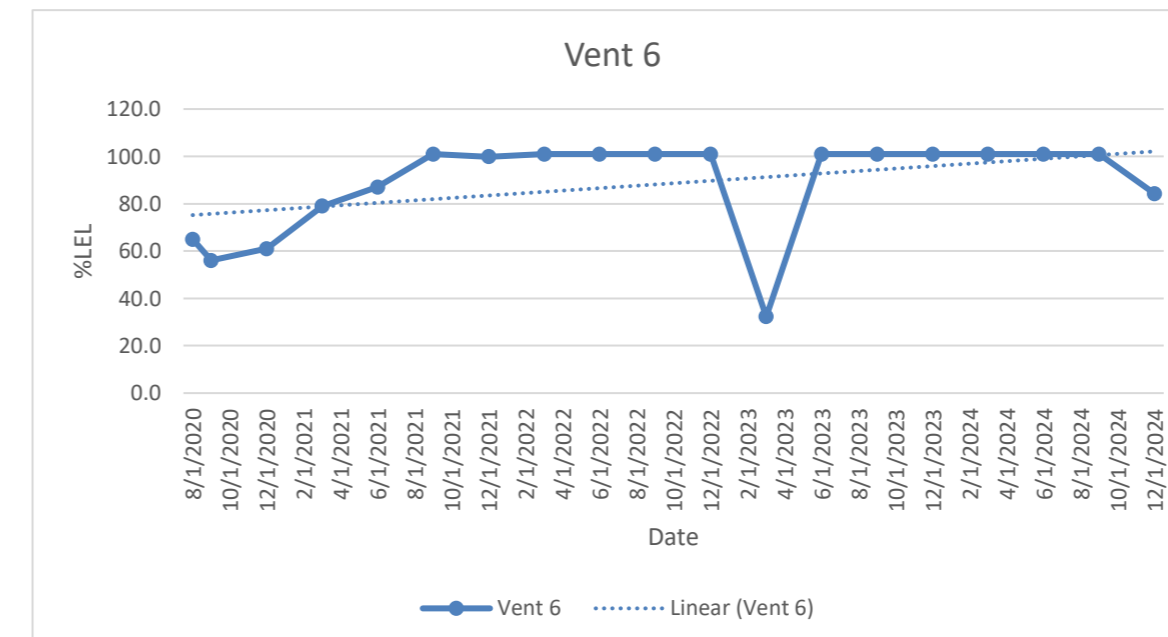
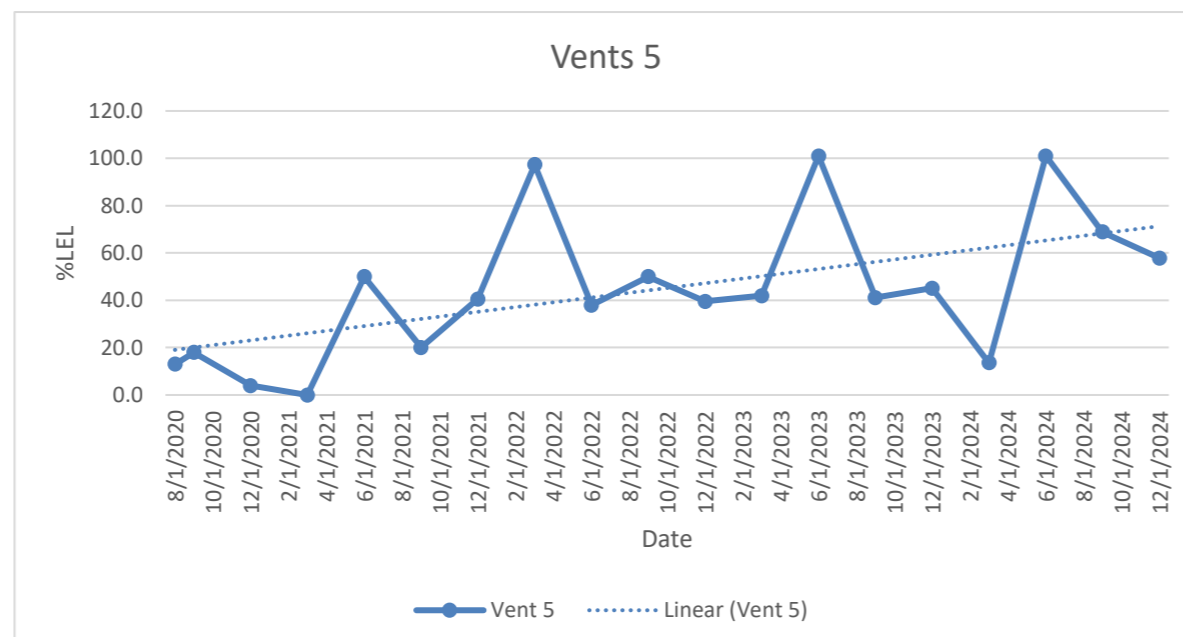
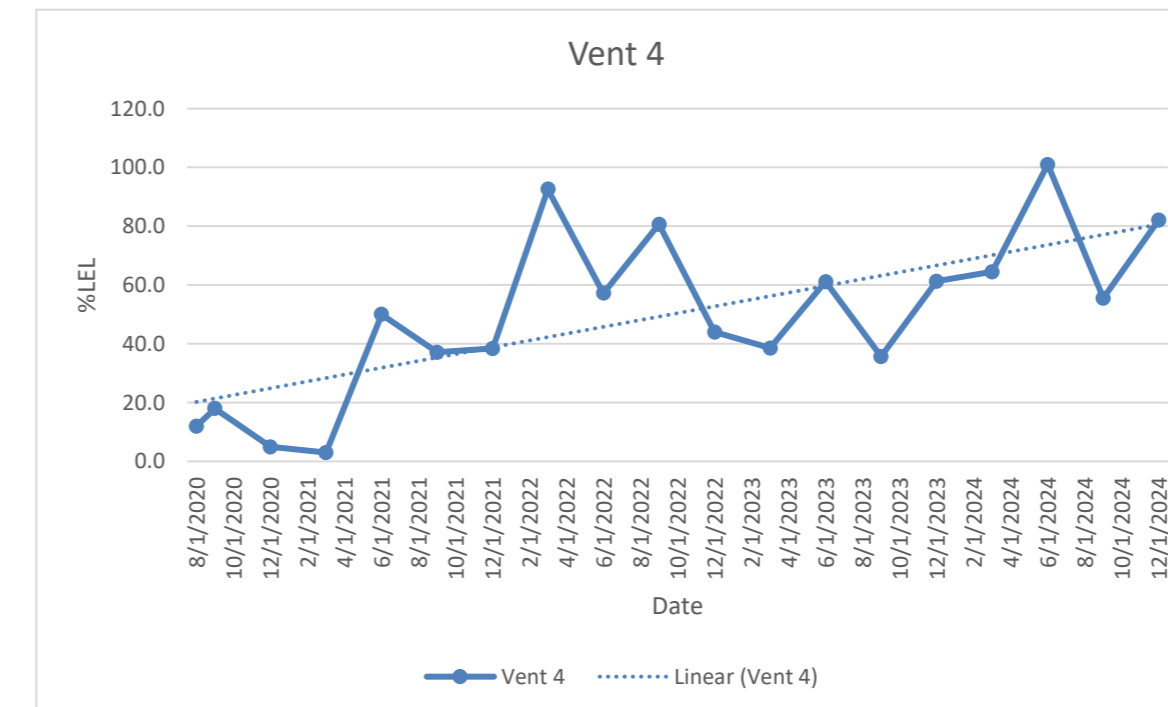
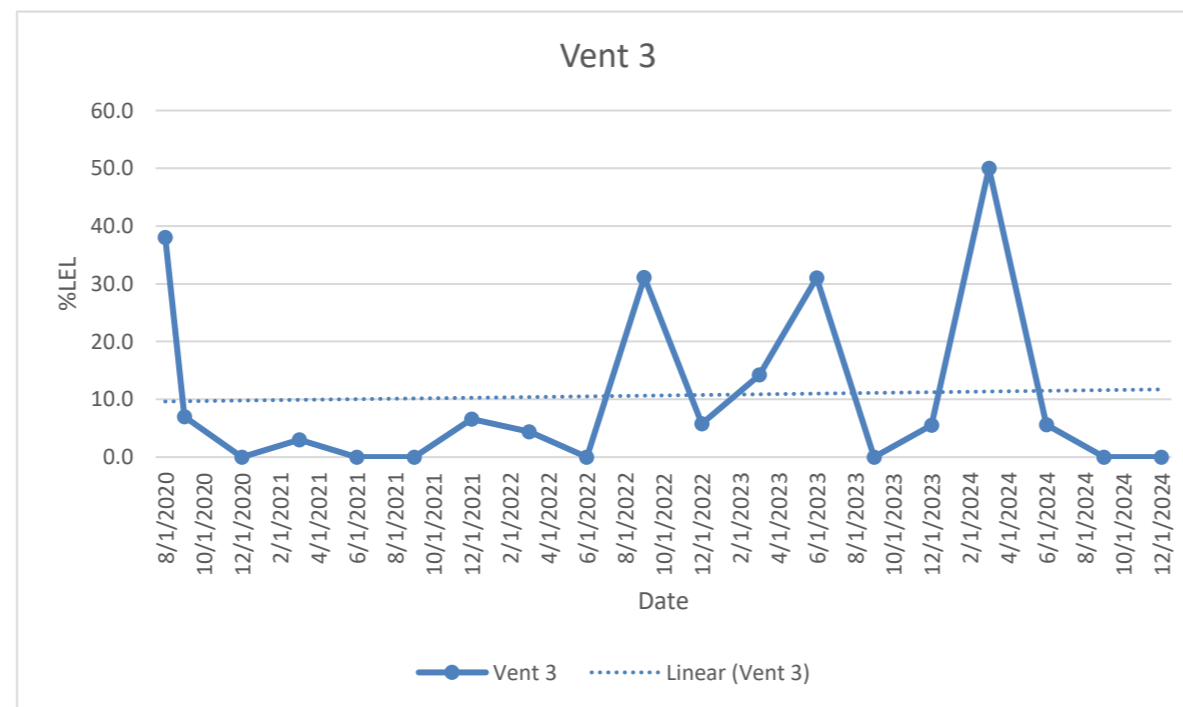
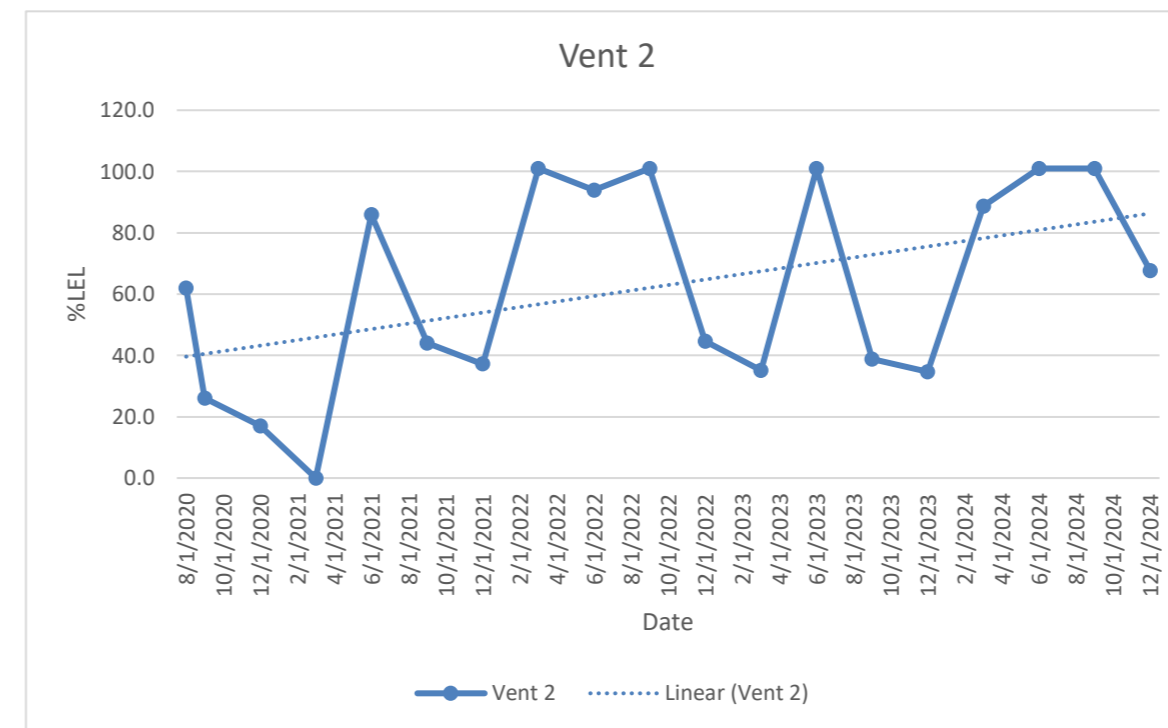
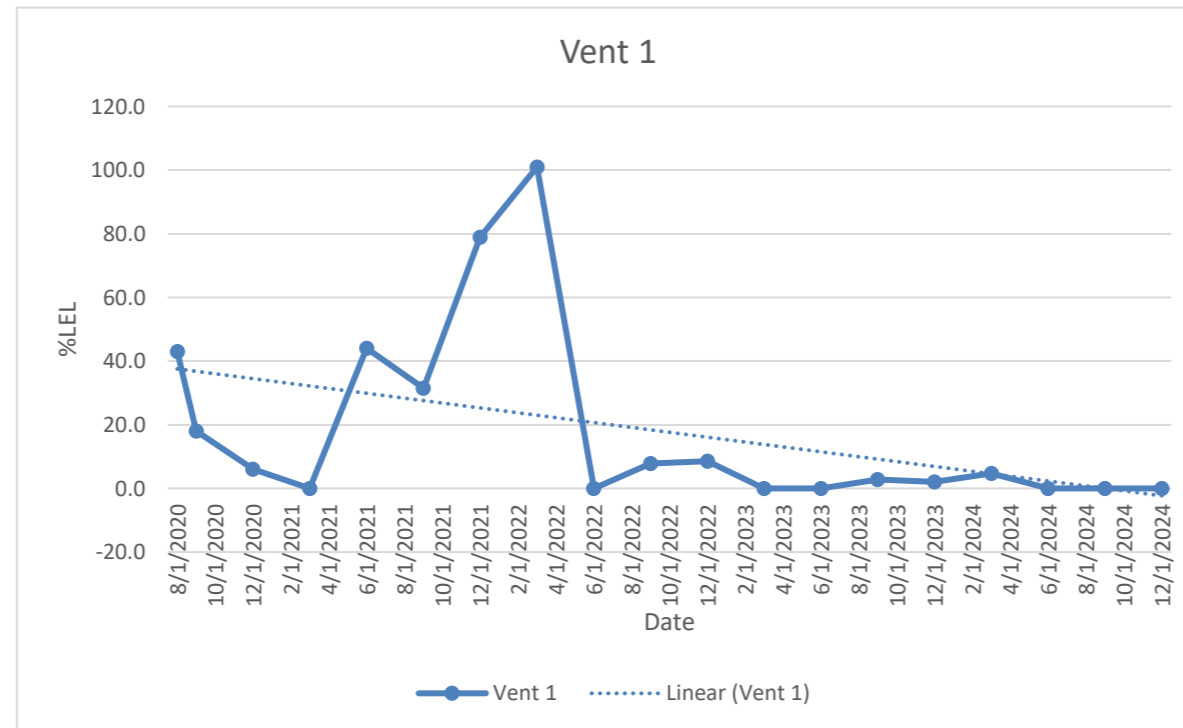


Table 16 – CAMP Evaluation of Methane, Ethane, Ethene, Alkalinity and pH

**Table 16**  
**Methane, Ethane, Ethene, Alkalinity, and pH over Time**  
 Annual Water Quality Report  
 SCILA Sanitary Landfill  
 Permit No. 61-SDP-01-78P

Note: Alkalinity and pH were analyzed at MW-8B, MW-9AR, and MW-15R on 9/5/2023, rather than 3/23/23.

Sample Date	Methane					Ethane					Ethene					Alkalinity					pH					
	LW-26 Concentration mg/L	MW-8B Concentration mg/L	MW-9AR Concentration mg/L	MW-14D Concentration mg/L	MW-15R Concentration mg/L	LW-26 Concentration mg/L	MW-8B Concentration mg/L	MW-9AR Concentration mg/L	MW-14D Concentration mg/L	MW-15R Concentration mg/L	LW-26 GWPS mg/L	MW-8B GWPS mg/L	MW-9AR Concentration mg/L	MW-14D GWPS mg/L	MW-15R Concentration mg/L	LW-26 Concentration ug/L	MW-8B Concentration ug/L	MW-9AR GWPS ug/L	MW-14D Concentration ug/L	MW-15R Concentration mg/L	LW-26 GWPS	MW-8B GWPS	MW-9AR Concentration	MW-14D GWPS	MW-15R Concentration	
3/24/2020		1.61	1.94	<0.009			<0.015	<0.010	<0.013			<0.015	<0.010	<0.013		1410	652	758	766		7	6.8	6.8	8.2		
4/14/2020																1890	792	822	812		7	6.8	6.7	8.1		
9/2/2020	6.96	0.213	1.18	<0.007		<0.010	<0.013	<0.010	<0.010		<0.010	<0.013	<0.010	<0.010		1160	777	796	806		6.9	6.6	6.6	7.6		
3/8/2021	5.04	0.15	0.582	<0.007		<0.010	<0.010	<0.008	<0.010		<0.010	<0.010	<0.008	<0.010		240	718	365	889		6.3	6.7	6.9	7.5		
3/28/2022	2.71	0.0835	0.00601	0.00974		<0.00773	<0.00773	<0.00773	<0.00773		<0.00828	<0.00828	<0.00828	<0.00828		473	698	690		620	6.7	7.0	6.6	6.6	6.6	
3/23/2023	1.93	0.161	0.0565	<0.004	2.18	<0.007	<0.007	<0.007	<0.007	<0.007	<0.010	<0.010	<0.010	<0.010	<0.010	1520	695	662		541	7	6.6	6.6		6.6	
3/6/2024						<0.007					<0.00828														6.6	
4/1/2024	1.26																									6.6
9/18/2024		0.0708	0.659		14		<0.005	<0.005		<0.005		<0.005	<0.005	<0.005			728	778		696		6.6	6.7		6.7	

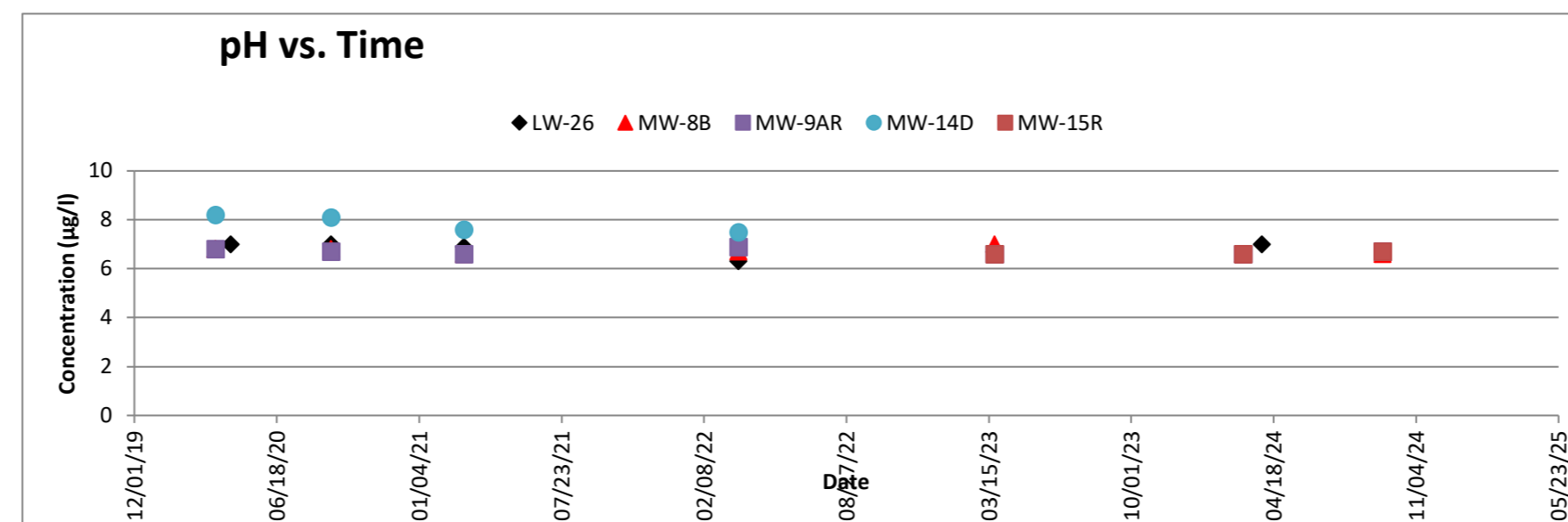
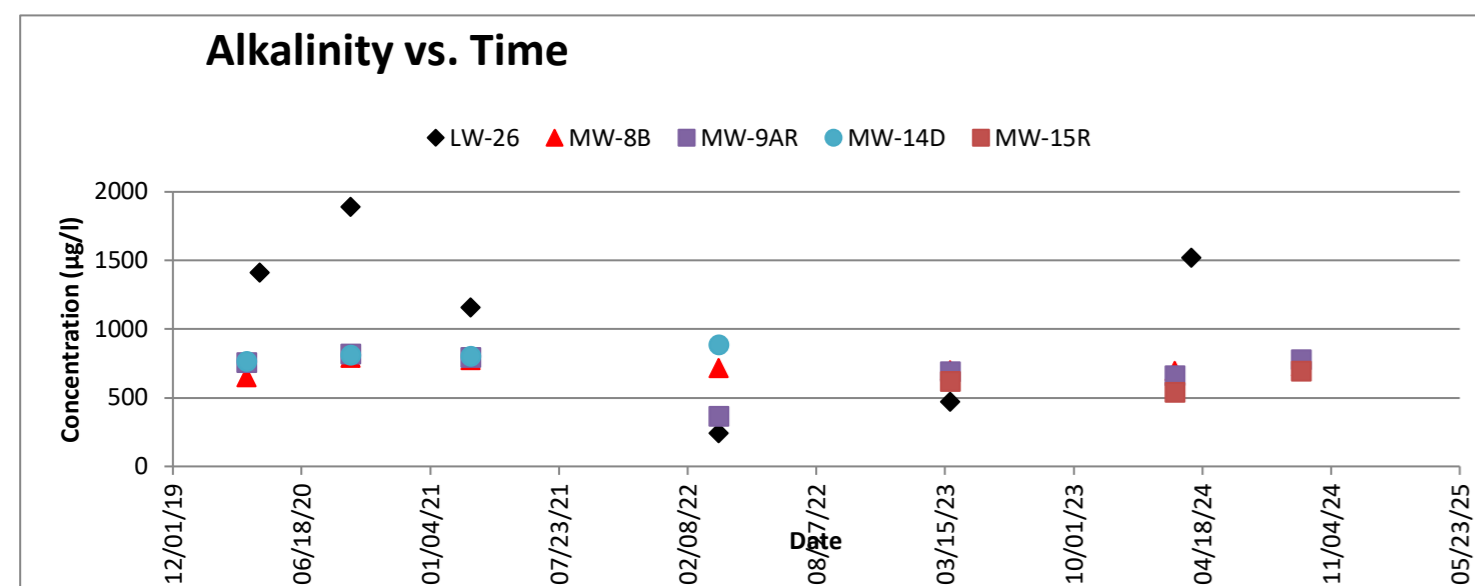
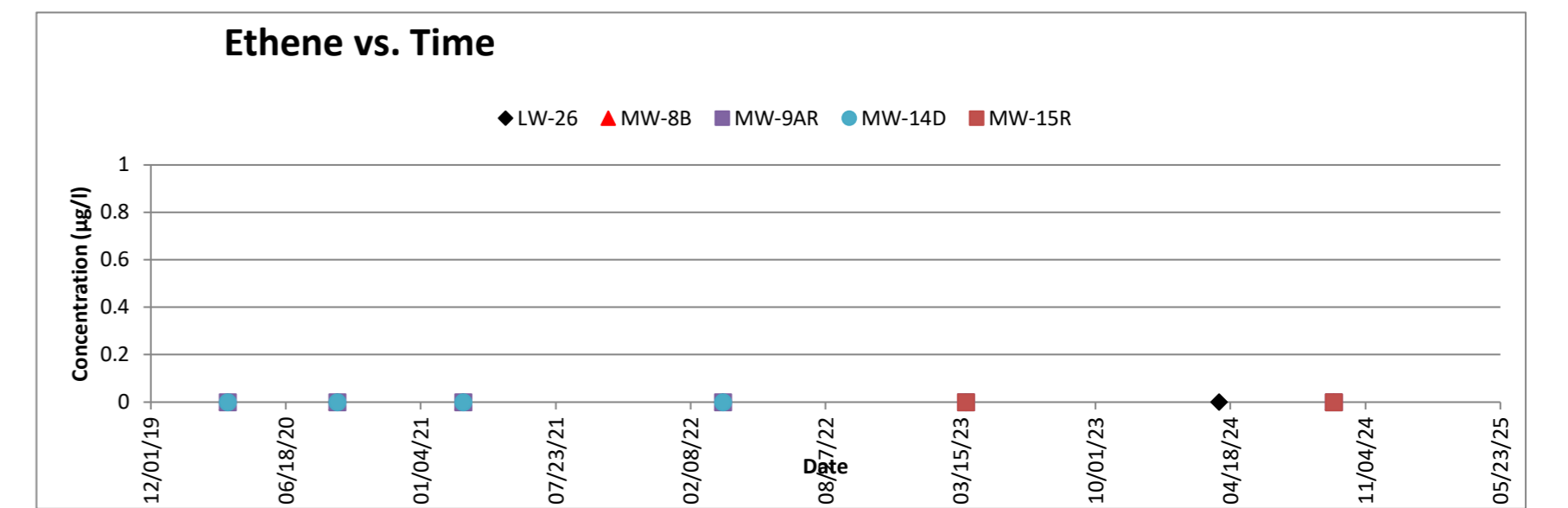
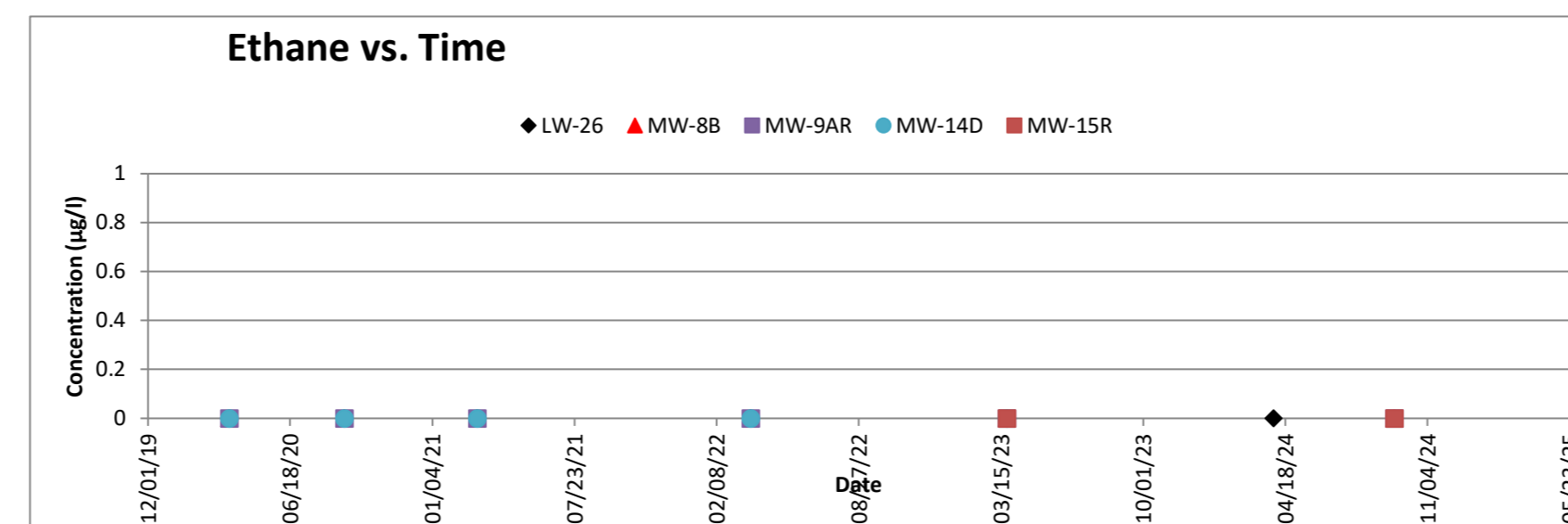
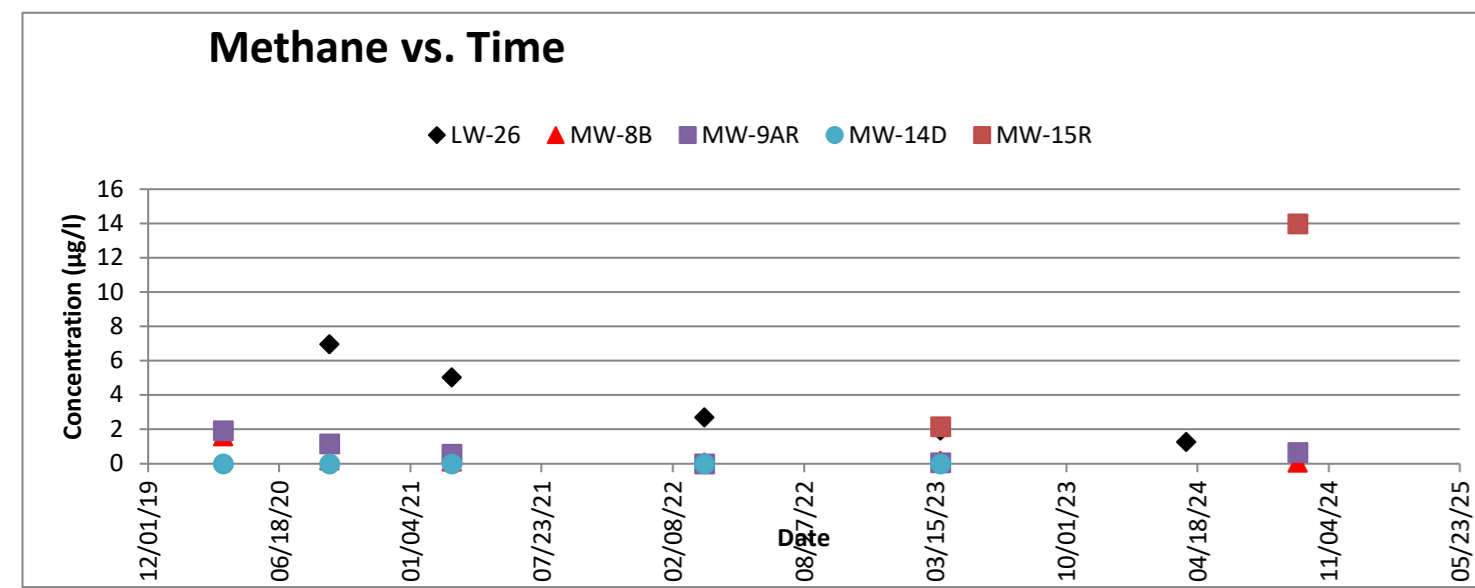


Table 17 – Leachate Levels



**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**IDNR Permit No. 61-SDP-01-78P**

<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/8/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
2/8/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
3/6/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
4/1/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
5/22/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
6/3/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
7/9/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
8/6/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
9/18/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
10/25/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
11/20/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0
12/9/2024	LPZ-A	1044.53	9.0	1035.53	1035.53	9.0	0.0

<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/8/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
2/8/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
3/6/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
4/1/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
5/22/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
6/3/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
7/9/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
8/6/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
9/18/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
10/25/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
11/20/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0
12/9/2024	LPZ-B	1042.43	8.8	1033.63	1033.63	8.8	0.0



**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**IDNR Permit No. 61-SDP-01-78P**

<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2011	LPZ-101	1070.35	20.1	1050.25	1049.8	20.55	0.45
2/24/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
3/4/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
4/29/2011	LPZ-101	1066.25	16.35	1049.9	1049.8	16.45	0.1
5/17/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
6/7/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
7/6/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
8/9/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
9/22/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
10/4/2011	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
12/9/2011	LPZ-101	1066.25	16.35	1049.9	1049.8	16.45	0.1
1/18/2012	LPZ-101	1066.25	16	1050.25	1049.8	16.45	0.45
2/27/2012	LPZ-101	1066.25	16.2	1050.05	1049.8	16.45	0.25
3/13/2012	LPZ-101	1066.25	16.1	1050.15	1049.8	16.45	0.35
4/17/2012	LPZ-101	1066.25	16.4	1049.85	1049.8	16.45	0.05
5/16/2012	LPZ-101	1066.25	16.43	1049.82	1049.8	16.45	0.02
6/26/2012	LPZ-101	1066.25	16.3	1049.95	1049.8	16.45	0.15
7/18/2012	LPZ-101	1066.25	16.45	1049.8	1049.8	16.45	0
9/19/2012	LPZ-101	1066.6	16.8	1049.8	1049.8	16.8	0
10/24/2012	LPZ-101	1066.6	16.8	1049.8	1049.8	16.8	0
11/21/2012	LPZ-101	1066.6	16.8	1049.8	1049.8	16.8	0
12/11/2012	LPZ-101	1066.6	16.8	1049.8	1049.8	16.8	0

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
2/28/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
3/25/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
4/1/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
5/13/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
6/10/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
7/17/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
8/15/2013	LPZ-101	1072.7	22.9	1049.8	1049.8	22.9	0
9/19/2013	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
10/10/2013	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
11/12/2013	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
12/4/2013	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
1/15/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
2/10/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
3/27/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
4/15/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
5/8/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
6/9/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
7/8/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
8/18/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
9/24/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
10/10/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
11/19/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
12/2/2014	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
**Annual Water Quality Report**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/19/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
2/17/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
3/19/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
4/7/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
5/4/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
6/17/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
7/7/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
8/6/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
9/2/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
10/1/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
11/10/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
12/10/2015	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
1/19/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
2/11/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
3/3/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
4/18/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
5/10/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
6/21/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
7/6/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
8/15/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
9/21/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
10/7/2016	LPZ-101	1073	22.45	1050.55	1049.8	23.2	0.75
11/9/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
12/8/2016	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
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**SCILA Sanitary Landfill**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/18/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
2/4/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
3/9/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
4/17/2017	LPZ-101	1073	20.75	1052.25	1049.8	23.2	2.45
5/17/2017	LPZ-101	1073	20.3	1052.7	1049.8	23.2	2.9
6/6/2017	LPZ-101	1073	20.65	1052.35	1049.8	23.2	2.55
7/12/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
8/10/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
9/14/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
10/4/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
11/1/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
12/13/2017	LPZ-101	1073	23.2	1049.8	1049.8	23.2	0
1/12/2018	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
2/8/2018	LPZ-101	1073.2	23.2	1050	1049.8	23.4	0.2
3/13/2018	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
4/17/2018	LPZ-101	1073.2	23.3	1049.9	1049.8	23.4	0.1
5/18/2018	LPZ-101	1073.2	23.05	1050.15	1049.8	23.4	0.35
6/6/2018	LPZ-101	1073.2	23.05	1050.15	1049.8	23.4	0.35
7/11/2018	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
7/18/2018	LPZ-101	1073.2	23.2	1050	1049.8	23.4	0.2
8/2/2018	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/7/2018	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/16/2018	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/22/2018	LPZ-101	1073.2	23.2	1050	1049.8	23.4	0.2
8/29/2018	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
9/10/2018	LPZ-101	1073.35	19.2	1054.15	1049.8	23.55	4.35
10/11/2008	LPZ-101	1073.35	20.2	1053.15	1049.8	23.55	3.35
11/14/2018	LPZ-101	1073.35	19.2	1054.15	1049.8	23.55	4.35
11/23/2018	LPZ-101	1073.35	21.0	1052.35	1049.8	23.55	2.55
12/15/2018	LPZ-101	1073.35	22.7	1050.65	1049.8	23.55	0.85

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
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Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness
1/16/2019	LPZ-101	1073.2	21.2	1052	1049.8	23.4	2.2
2/15/2019	LPZ-101	1073.2	19.6	1053.6	1049.8	23.4	3.8
3/14/2019	LPZ-101	1073.2	18.4	1054.8	1049.8	23.4	5
4/24/2019	LPZ-101	1073.2	19.25	1053.95	1049.8	23.4	4.15
5/15/2019	LPZ-101	1073.2	21.4	1051.8	1049.8	23.4	2
5/20/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
6/5/2019	LPZ-101	1073.2	20.35	1052.85	1049.8	23.4	3.05
6/10/2019	LPZ-101	1073.2	23.2	1050	1049.8	23.4	0.2
6/12/2019	LPZ-101	1073.2	23.1	1050.1	1049.8	23.4	0.3
6/14/2019	LPZ-101	1073.2	23.3	1049.9	1049.8	23.4	0.1
6/28/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
7/3/2019	LPZ-101	1073.2	23.1	1050.1	1049.8	23.4	0.3
7/10/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
7/16/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
7/17/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
7/24/2019	LPZ-101	1073.2	23.2	1050	1049.8	23.4	0.2
7/31/2019	LPZ-101	1073.2	23.3	1049.9	1049.8	23.4	0.1
8/7/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/15/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/19/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/28/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
9/6/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
9/16/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
9/18/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
10/8/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
11/20/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
12/2/2019	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0

Time period when leachate recirculation was ongoing.

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**IDNR Permit No. 61-SDP-01-78P**

Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness
1/15/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
2/10/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
3/24/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
4/14/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
5/12/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
6/3/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
7/20/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/17/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
9/2/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
10/7/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
11/27/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
12/28/2020	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
1/22/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
2/18/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
3/8/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
4/15/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
5/19/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
6/4/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
7/15/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
8/23/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
9/14/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
10/15/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
11/9/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0
12/1/2021	LPZ-101	1073.2	23.4	1049.8	1049.8	23.4	0

Time period when leachate recirculation was ongoing. *See Weekly Recirculation Logs in Appendix H.1.*



**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/5/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
2/8/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
3/28/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
4/20/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
5/9/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
6/20/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
7/1/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
8/4/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
9/13/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
10/11/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
11/10/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
12/1/2022	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0

Time period when leachate recirculation was ongoing. *See Weekly Recirculation Logs in Appendix H.1.*

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/24/2023	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
2/6/2023	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
3/23/2023	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
4/11/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
4/12/2023	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
4/12/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
4/13/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
4/17/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
4/18/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
5/3/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
5/8/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
5/9/2023	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
5/11/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
5/17/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
5/19/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
5/23/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/5/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/7/2023	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
6/7/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/9/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/13/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/15/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/19/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/21/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/23/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
7/5/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
7/10/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
7/12/2023	LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
7/14/2023	LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
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7/24/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
7/26/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
7/28/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/7/2023 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
8/15/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/16/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/17/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/18/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/21/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/22/2023 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
9/5/2023 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
10/20/2023 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
11/13/2023 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
12/14/2023 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0

Time period when leachate recirculation was ongoing. *See Weekly Recirculation Logs in Appendix H.1.*

LPZ-101\* = measurement by landfill staff

**Table 17**  
**Leachte Elevation and Thickness Data - Subtitle D Expansion Areas**  
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1/8/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
2/5/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
2/6/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
2/7/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
2/8/2024 LPZ-101	1074.09	23.05	1051.04	1050.79	23.3	0.25
2/9/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
3/6/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
4/1/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
5/22/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
5/28/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
5/31/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
6/3/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
6/6/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
6/10/2024 LPZ-101*	1074.09	23.05	1051.04	1050.79	23.3	0.25
6/12/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/14/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
6/18/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
6/21/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
6/25/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
6/27/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
7/9/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
7/11/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
7/16/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
7/18/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
7/24/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
7/26/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
7/29/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/5/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
8/6/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
8/9/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/19/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
8/23/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
8/26/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
8/30/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17

**Table 17**  
**Leachate Elevation and Thickness Data - Subtitle D Expansion Areas**  
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9/4/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
9/6/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
9/9/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
9/11/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
9/13/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
9/16/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
9/18/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
9/20/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
9/30/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
10/2/2024 LPZ-101*	1074.09	23.3	1050.79	1050.79	23.3	0
10/7/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
10/7/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
10/9/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
10/11/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
10/25/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
11/4/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
11/5/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
11/6/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
11/7/2024 LPZ-101*	1074.09	23.05	1051.04	1050.79	23.3	0.25
11/8/2024 LPZ-101*	1074.09	23.05	1051.04	1050.79	23.3	0.25
11/11/2024 LPZ-101*	1074.09	23.22	1050.87	1050.79	23.3	0.08
11/12/2024 LPZ-101*	1074.09	23.13	1050.96	1050.79	23.3	0.17
11/20/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0
12/9/2024 LPZ-101	1074.09	23.3	1050.79	1050.79	23.3	0

Time period when leachate recirculation was ongoing. *See Weekly Recirculation Logs in Appendix H.1.*

LPZ-101\* = measurement by landfill staff



**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2011	LW-1E	1108.6	29.2	1079.4	1045.8	62.8	33.6
2/24/2011	LW-1E	1108.6	25.9	1082.7	1045.8	62.8	36.9
3/4/2011	LW-1E	1108.6	25.9	1082.7	1045.8	62.8	36.9
4/29/2011	LW-1E	1108.6	27.4	1081.2	1045.8	62.8	35.4
5/17/2011	LW-1E	1108.6	27.4	1081.2	1045.8	62.8	35.4
6/7/2011	LW-1E	1108.6	27.4	1081.2	1045.8	62.8	35.4
7/6/2011	LW-1E	1108.6	27.4	1081.2	1045.8	62.8	35.4
8/9/2011	LW-1E	1108.6	26.7	1081.9	1045.8	62.8	36.1
9/22/2011	LW-1E	1108.6	26.3	1082.3	1045.8	62.8	36.5
10/4/2011	LW-1E	1108.6	25.1	1083.5	1045.8	62.8	37.7
12/9/2011	LW-1E	1108.6	28.4	1080.2	1045.8	62.8	34.4
1/18/2012	LW-1E	1108.6	28.3	1080.3	1045.8	62.8	34.5
2/27/2012	LW-1E	1108.6	28	1080.6	1045.8	62.8	34.8
3/13/2012	LW-1E	1108.6	28	1080.6	1045.8	62.8	34.8
4/17/2012	LW-1E	1108.6	28	1080.6	1045.8	62.8	34.8
5/16/2012	LW-1E	1108.6	27.45	1081.15	1045.8	62.8	35.35
6/26/2012	LW-1E	1108.6	28	1080.6	1045.8	62.8	34.8
7/18/2012	LW-1E	1108.6	27.2	1081.4	1045.8	62.8	35.6
9/19/2012	LW-1E	1108.6	26.7	1081.9	1045.8	62.8	36.1
10/24/2012	LW-1E	1108.6	28.25	1080.35	1045.8	62.8	34.55
11/21/2012	LW-1E	1108.6	27.2	1081.4	1045.8	62.8	35.6
12/11/2012	LW-1E	1108.6	28.1	1080.5	1045.8	62.8	34.7

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2013	LW-1E	1108.6	28.2	1080.4	1045.8	62.8	34.6
2/28/2013	LW-1E	1108.6	28.2	1080.4	1045.8	62.8	34.6
3/25/2013	LW-1E	1108.6	28.3	1080.3	1045.8	62.8	34.5
4/1/2013	LW-1E	1108.6	28.4	1080.2	1045.8	62.8	34.4
5/13/2013	LW-1E	1108.6	28.1	1080.5	1045.8	62.8	34.7
6/10/2013	LW-1E	1108.6	28.1	1080.5	1045.8	62.8	34.7
7/17/2013	LW-1E	1108.6	28.1	1080.5	1045.8	62.8	34.7
8/15/2013	LW-1E	1108.6	28.2	1080.4	1045.8	62.8	34.6
9/19/2013	LW-1E	1108.6	27.3	1081.3	1045.8	61.8	35.5
10/10/2013	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
11/12/2013	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
12/4/2013	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
1/15/2014	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
2/10/2014	LW-1E	1108.6	26.9	1081.7	1045.8	61.8	35.9
3/27/2014	LW-1E	1108.6	27.15	1081.45	1045.8	61.8	35.65
4/15/2014	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
5/8/2014	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
6/9/2014	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
7/8/2014	LW-1E	1108.6	27.15	1081.45	1045.8	61.8	35.65
8/18/2014	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
9/24/2014	LW-1E	1108.6	27.2	1081.4	1045.8	61.8	35.6
10/10/2014	LW-1E	1108.6	26.3	1082.3	1045.8	61.8	36.5
11/19/2014	LW-1E	1108.6	26.5	1082.1	1045.8	61.8	36.3
12/2/2014	LW-1E	1108.6	26.2	1082.4	1045.8	61.8	36.6



**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/19/2015	LW-1E	1108.6	26.15	1082.45	1045.8	61.8	36.65
2/17/2015	LW-1E	1108.6	26.15	1082.45	1045.8	61.8	36.65
3/19/2015	LW-1E	1108.6	26.2	1082.4	1045.8	61.8	36.6
4/7/2015	LW-1E	1108.6	26.2	1082.4	1045.8	61.8	36.6
5/4/2015	LW-1E	1108.6	27.9	1080.7	1045.8	61.8	34.9
6/17/2015	LW-1E	1108.6	27.9	1080.7	1045.8	61.8	34.9
7/7/2015	LW-1E	1108.6	27.8	1080.8	1045.8	61.8	35
8/6/2015	LW-1E	1108.6	27.55	1081.05	1045.8	61.8	35.25
9/2/2015	LW-1E	1108.6	27.75	1080.85	1045.8	61.8	35.05
10/1/2015	LW-1E	1108.6	27.9	1080.7	1045.8	61.8	34.9
11/10/2015	LW-1E	Removed	Removed	Removed	1045.8	Removed	Removed
12/10/2015	LW-1E	Removed	Removed	Removed	1045.8	Removed	Removed

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2011	LW-21	1120.98	54.1	1066.88	1041.6	79.38	25.28
2/24/2011	LW-21	1120.98	53.6	1067.38	1041.6	79.38	25.78
3/4/2011	LW-21	1120.98	53.6	1067.38	1041.6	79.38	25.78
4/29/2011	LW-21	1120.98	53	1067.98	1041.6	79.38	26.38
5/17/2011	LW-21	1120.98	49	1071.98	1041.6	79.38	30.38
6/7/2011	LW-21	1120.98	54	1066.98	1041.6	79.38	25.38
7/6/2011	LW-21	1120.98	53.2	1067.78	1041.6	79.38	26.18
8/9/2011	LW-21	1120.98	52.5	1068.48	1041.6	79.38	26.88
9/22/2011	LW-21	1120.98	53	1067.98	1041.6	79.38	26.38
10/4/2011	LW-21	1120.98	52.5	1068.48	1041.6	79.38	26.88
12/9/2011	LW-21	1120.98	51.4	1069.58	1041.6	79.38	27.98
1/18/2012	LW-21	1120.98	51.35	1069.63	1041.6	79.38	28.03
2/27/2012	LW-21	1120.98	51.2	1069.78	1041.6	79.38	28.18
3/13/2012	LW-21	1120.98	51.2	1069.78	1041.6	79.38	28.18
4/17/2012	LW-21	1120.98	52.4	1068.58	1041.6	79.38	26.98
5/16/2012	LW-21	1120.98	51.9	1069.08	1041.6	79.38	27.48
6/26/2012	LW-21	1120.98	52.6	1068.38	1041.6	79.38	26.78
7/18/2012	LW-21	1120.98	52.1	1068.88	1041.6	79.38	27.28
9/19/2012	LW-21	1120.98	59.4	1061.58	1041.6	79.38	19.98
10/24/2012	LW-21	1120.98	55.3	1065.68	1041.6	79.38	24.08
11/21/2012	LW-21	1120.98	55.2	1065.78	1041.6	79.38	24.18
12/11/2012	LW-21	1120.98	53.8	1067.18	1041.6	79.38	25.58

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2013	LW-21	1120.98	53.4	1067.58	1041.6	79.38	25.98
2/28/2013	LW-21	1120.98	52.4	1068.58	1041.6	79.38	26.98
3/25/2013	LW-21	1120.98	52.2	1068.78	1041.6	79.38	27.18
4/1/2013	LW-21	1120.98	52.4	1068.58	1041.6	79.38	26.98
5/13/2013	LW-21	1120.98	52.4	1068.58	1041.6	79.38	26.98
6/10/2013	LW-21	1120.98	51.75	1069.23	1041.6	79.38	27.63
7/17/2013	LW-21	1120.98	Pump is Blocking		1041.6	79.38	
8/15/2013	LW-21	1120.98	61.7	1059.28	1041.6	79.38	17.68
9/19/2013	LW-21	1120.98	77.4	1043.58	1041.6	79.38	1.98
10/10/2013	LW-21	1120.98	77.5	1043.48	1041.6	79.38	1.88
11/12/2013	LW-21	1120.98	79	1041.98	1041.6	79.38	0.38
12/4/2013	LW-21	1120.98	64.6	1056.38	1041.6	79.38	14.78
1/15/2014	LW-21	1120.98	56.6	1064.38	1041.6	79.38	22.78
2/10/2014	LW-21	1120.98	55.6	1065.38	1041.6	79.38	23.78
3/27/2014	LW-21	1120.98	78.9	1042.08	1041.6	79.38	0.48
4/15/2014	LW-21	1120.98	78.8	1042.18	1041.6	79.38	0.58
5/8/2014	LW-21	1120.98	78.9	1042.08	1041.6	79.38	0.48
6/9/2014	LW-21	1120.98	78.8	1042.18	1041.6	79.38	0.58
7/8/2014	LW-21	1120.98	78.75	1042.23	1041.6	79.38	0.63
8/18/2014	LW-21	1120.98	78.9	1042.08	1041.6	79.38	0.48
9/24/2014	LW-21	1120.98	78.9	1042.08	1041.6	79.38	0.48
10/10/2014	LW-21	1120.98	78.85	1042.13	1041.6	79.38	0.53
11/19/2014	LW-21	1120.98	71.5	1049.48	1041.6	79.38	7.88
12/2/2014	LW-21	1120.98	63.3	1057.68	1041.6	79.38	16.08

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/19/2015	LW-21	1120.98	56.1	1064.88	1041.6	79.38	23.28
2/17/2015	LW-21	1120.98	56.1	1064.88	1041.6	79.38	23.28
3/19/2015	LW-21	1120.98	54.15	1066.83	1041.6	79.38	25.23
4/7/2015	LW-21	1120.98	53.6	1067.38	1041.6	79.38	25.78
5/4/2015	LW-21	1120.98	78.9	1042.08	1041.6	79.38	0.48
6/17/2015	LW-21	1120.98	78.8	1042.18	1041.6	79.38	0.58
7/7/2015	LW-21	1120.98	78.8	1042.18	1041.6	79.38	0.58
8/6/2015	LW-21	1120.98	78.9	1042.08	1041.6	79.38	0.48
9/2/2015	LW-21	1120.98	79	1041.98	1041.6	79.38	0.38
10/1/2015	LW-21	1120.98	73.4	1047.58	1041.6	79.38	5.98
11/10/2015	LW-21	1120.98	77.45	1043.53	1041.6	79.38	1.93
12/10/2015	LW-21	1120.98	78.6	1042.38	1041.6	79.38	0.78
1/19/2016	LW-21	1120.98	77.45	1043.53	1041.6	79.38	1.93
2/11/2016	LW-21	1120.98	76.8	1044.18	1041.6	79.38	2.58
3/3/2016	LW-21	1120.98	77.5	1043.48	1041.6	79.38	1.88
4/18/2016	LW-21	1120.98	61.9	1059.08	1041.6	79.38	17.48
5/10/2016	LW-21	1120.98	59.3	1061.68	1041.6	79.38	20.08
6/21/2016	LW-21	1120.98	56.8	1064.18	1041.6	79.38	22.58
7/6/2016	LW-21	1120.98	56.9	1064.08	1041.6	79.38	22.48
8/15/2016	LW-21	1120.98	55.7	1065.28	1041.6	79.38	23.68
9/21/2016	LW-21	1120.98	55	1065.98	1041.6	79.38	24.38
10/7/2016	LW-21	1120.98	72.3	1048.68	1041.6	79.38	7.08
11/9/2016	LW-21	1120.98	60.25	1060.73	1041.6	79.38	19.13
12/8/2016	LW-21	1120.98	57.6	1063.38	1041.6	79.38	21.78

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/18/2017	LW-21	1120.98	56.6	1064.38	1041.6	79.38	22.78
2/4/2017	LW-21	1120.98	56.2	1064.78	1041.6	79.38	23.18
3/9/2017	LW-21	1120.98	59.35	1061.63	1041.6	79.38	20.03
4/17/2017	LW-21	1120.98	55.45	1065.53	1041.6	79.38	23.93
5/17/2017	LW-21	1120.98	54.2	1066.78	1041.6	79.38	25.18
6/6/2017	LW-21	1120.98	54.2	1066.78	1041.6	79.38	25.18
7/12/2017	LW-21	1120.98	54	1066.98	1041.6	79.38	25.38
8/10/2017	LW-21	1120.98	77.3	1043.68	1041.6	79.38	2.08
9/14/2017	LW-21	1120.98	71.6	1049.38	1041.6	79.38	7.78
10/4/2017	LW-21	1120.98	63.2	1057.78	1041.6	79.38	16.18
11/1/2017	LW-21	1120.98	63.55	1057.43	1041.6	79.38	15.83
12/13/2017	LW-21	1120.98	58.55	1062.43	1041.6	79.38	20.83
1/12/2018	LW-21	1120.98	59.5	1061.48	1041.6	79.38	19.88
2/8/2018	LW-21	1120.98	55.6	1065.38	1041.6	79.38	23.78
3/13/2018	LW-21	1120.98	57.2	1063.78	1041.6	79.38	22.18
4/17/2018	LW-21	1120.98	53.8	1067.18	1041.6	79.38	25.58
5/18/2018	LW-21	1120.98	53.8	1067.18	1041.6	79.38	25.58
6/6/2018	LW-21	1120.98	53.5	1067.48	1041.6	79.38	25.88
7/11/2018	LW-21	1120.98	54.01	1066.97	1041.6	79.38	25.37
8/7/2018	LW-21	1120.98	53.9	1067.08	1041.6	79.38	25.48
9/10/2018	LW-21	1120.98	53.91	1067.07	1041.6	79.38	25.47
10/11/2018	LW-21	1120.98	54.7	1066.28	1041.6	79.38	24.68
11/14/2018	LW-21	1120.98	77.2	1043.78	1041.6	79.38	2.18
12/15/2018	LW-21	1120.98	63.35	1057.63	1041.6	79.38	16.03

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness
1/16/2019	LW-21	1120.98	59.96	1061.02	1041.6	79.38	19.42
2/15/2019	LW-21	1120.98	57.3	1063.68	1041.6	79.38	22.08
3/14/2019	LW-21	1120.98	56.4	1064.58	1041.6	79.38	22.98
4/24/2019	LW-21	1120.98	70.75	1050.23	1041.6	79.38	8.63
5/15/2019	LW-21	1120.98	66.3	1054.68	1041.6	79.38	13.08
6/5/2019	LW-21	1120.98	61.85	1059.13	1041.6	79.38	17.53
7/17/2019	LW-21	1120.98	69.49	1051.49	1041.6	79.38	9.89
8/19/2019	LW-21	1120.98	76.62	1044.36	1041.6	79.38	2.76
9/16/2019	LW-21	1120.98	77.0	1043.98	1041.6	79.38	2.38
10/8/2019	LW-21	1120.98	75.13	1045.85	1041.6	79.38	4.25
11/20/2019	LW-21	1120.98	69.95	1051.03	1041.6	79.38	9.43
12/2/2019	LW-21	1120.98	70.8	1050.18	1041.6	79.38	8.58
1/15/2020	LW-21	1120.98	73.85	1047.13	1041.6	79.38	5.53
2/10/2020	LW-21	1120.98	73.1	1047.88	1041.6	79.38	6.28
3/24/2020	LW-21	1120.98	74.6	1046.38	1041.6	79.38	4.78
4/14/2020	LW-21	1120.98	74.7	1046.28	1041.6	79.38	4.68
5/12/2020	LW-21	1120.98	69.75	1051.23	1041.6	79.38	9.63
6/3/2020	LW-21	1120.98	63.75	1057.23	1041.6	79.38	15.63
7/20/2020	LW-21	1120.98	59.22	1061.76	1041.6	79.38	20.16
8/17/2020	LW-21	1120.98	57.65	1063.33	1041.6	79.38	21.73
9/2/2020	LW-21	1120.98	57.4	1063.58	1041.6	79.38	21.98
10/7/2020	LW-21	1120.98	56.1	1064.88	1041.6	79.38	23.28
11/27/2020	LW-21	1120.98	55.55	1065.43	1041.6	79.38	23.83
12/28/2020	LW-21	1120.98	61.5	1059.48	1041.6	79.38	17.88
1/22/2021	LW-21	1120.98	77.62	1043.36	1041.6	79.38	1.76
2/18/2021	LW-21	1120.98	77.6	1043.38	1041.6	79.38	1.78
3/8/2021	LW-21	1120.98	70.7	1050.28	1041.6	79.38	8.68
4/15/2021	LW-21	1120.98	66.2	1054.78	1041.6	79.38	13.18
5/19/2021	LW-21	1120.98	77.6	1043.38	1041.6	79.38	1.78
6/4/2021	LW-21	1120.98	77.9	1043.08	1041.6	79.38	1.48
7/15/2021	LW-21	1118.48	70.4	1048.08	1041.6	76.88	6.48
8/23/2021	LW-21	1118.48	60.75	1057.73	1041.6	76.88	16.13
9/14/2021	LW-21	1118.48	73.74	1044.74	1041.6	76.88	3.14
10/15/2021	LW-21	1118.48	73.75	1044.73	1041.6	76.88	3.13
11/9/2021	LW-21	1118.48	73.75	1044.73	1041.6	76.88	3.13
12/1/2021	LW-21	1118.48	73.8	1044.68	1041.6	76.88	3.08

Approx 2.5 ft cut off

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness	
1/5/2022	LW-21	1117.16	73.8	1043.36	1041.6	75.56	1.76	
2/8/2022	LW-21	1117.16	73.8	1043.36	1041.6	75.56	1.76	
3/28/2022	LW-21	1117.16	73.8	1043.36	1041.6	75.56	1.76	
4/20/2022	LW-21	1117.16	73.5	1043.66	1041.6	75.56	2.06	
5/9/2022	LW-21	1117.16	73.6	1043.56	1041.6	75.56	1.96	
6/20/2022	LW-21	1117.16	71.58	1045.58	1041.6	75.56	3.98	
7/1/2022	LW-21	1117.16	65.05	1052.11	1041.6	75.56	10.51	
8/4/2022	LW-21	1117.16	60.6	1056.56	1041.6	75.56	14.96	
9/13/2022	LW-21	1117.16	59.76	1057.4	1041.6	75.56	15.8	
10/11/2022	LW-21	1117.16	56.36	1060.8	1041.6	75.56	19.2	
11/10/2022	LW-21	1117.16	54.75	1062.41	1041.6	75.56	20.81	
12/1/2022	LW-21	1117.16	53.75	1063.41	1041.6	75.56	21.81	
1/24/2023	LW-21	1117.16	53.7	1063.46	1041.6	77.0	21.86	
2/6/2023	LW-21	1117.16	52.75	1064.41	1041.6	77.0	22.81	
3/23/2023	LW-21	1117.16	53.3	1063.86	1041.6	77.0	22.26	
4/12/2023	LW-21	1117.16	52.67	1064.49	1041.6	77.0	22.89	
5/9/2023	LW-21	1117.16	53.03	1064.13	1041.6	77.0	22.53	
6/7/2023	LW-21	1117.16	52.98	1064.18	1041.6	77.0	22.58	Replaced Pump 6/2023
7/12/2023	LW-21	1117.16	52.7	1064.46	1041.6	77.0	22.86	bad configuration file
8/7/2023	LW-21	1117.16	53.06	1064.1	1041.6	77.0	22.5	
9/5/2023	LW-21	1117.16	53.28	1063.88	1041.6	77.0	22.28	
10/20/2023	LW-21	1117.16	53.25	1063.91	1041.6	77.0	22.31	
11/13/2023	LW-21	1117.16	53.28	1063.88	1041.6	77.0	22.28	
12/14/2023	LW-21	1117.16	53.85	1063.31	1041.6	77.0	21.71	New Configuration file
1/8/2024	LW-21	1117.16	72.85	1044.31	1041.6	77.0	2.71	installed 12/14/23
2/8/2024	LW-21	1117.16	61.46	1055.7	1041.6	77.0	14.1	
3/6/2024	LW-21	1117.16	58.7	1058.46	1041.6	77.0	16.86	
4/1/2024	LW-21	1117.16	57.7	1059.46	1041.6	77.0	17.86	Control box removed
5/22/2024	LW-21	1117.16	72.0	1045.16	1041.6	77.0	3.56	Box replaced & operating
6/3/2024	LW-21	1117.16	72.63	1044.53	1041.6	77.0	2.93	
7/9/2024	LW-21	1117.16	72.13	1045.03	1041.6	77.0	3.43	
8/6/2024	LW-21	1117.16	72.35	1044.81	1041.6	77.0	3.21	
9/18/2024	LW-21	1117.16	76.45	1040.71	1041.6	77.0	-0.89	
10/25/2024	LW-21	1117.16	72.45	1044.71	1041.6	77.0	3.11	
11/20/2024	LW-21	1117.16	73.94	1043.22	1041.6	77.0	1.62	
12/9/2024	LW-21	1117.16	72.5	1044.66	1041.6	77.0	3.06	

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2011	LW-22	1118.88	46.35	1072.53	1036.4	82.48	36.13
2/24/2011	LW-22	1118.88	42.1	1076.78	1036.4	82.48	40.38
3/4/2011	LW-22	1118.88	46.1	1072.78	1036.4	82.48	36.38
4/29/2011	LW-22	1118.88	46.3	1072.58	1036.4	82.48	36.18
5/17/2011	LW-22	1118.88	46.3	1072.58	1036.4	82.48	36.18
6/7/2011	LW-22	1118.88	46.3	1072.58	1036.4	82.48	36.18
7/6/2011	LW-22	1118.88	46.3	1072.58	1036.4	82.48	36.18
8/9/2011	LW-22	1118.88	46.4	1072.48	1036.4	82.48	36.08
9/22/2011	LW-22	1118.88	46.6	1072.28	1036.4	82.48	35.88
10/4/2011	LW-22	1118.88	46.6	1072.28	1036.4	82.48	35.88
12/9/2011	LW-22	1118.88	46.5	1072.38	1036.4	82.48	35.98
1/18/2012	LW-22	1118.88	46.5	1072.38	1036.4	82.48	35.98
2/27/2012	LW-22	1118.88	46.6	1072.28	1036.4	82.48	35.88
3/13/2012	LW-22	1118.88	46.5	1072.38	1036.4	82.48	35.98
4/17/2012	LW-22	1118.88	46.5	1072.38	1036.4	82.48	35.98
5/16/2012	LW-22	1118.88	46.7	1072.18	1036.4	82.48	35.78
6/26/2012	LW-22	1118.88	46.9	1071.98	1036.4	82.48	35.58
7/18/2012	LW-22	1118.88	46.9	1071.98	1036.4	82.48	35.58
9/19/2012	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
10/24/2012	LW-22	1118.88	69.1	1049.78	1036.4	82.48	13.38
11/21/2012	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
12/11/2012	LW-22	1118.88	Pump is Blocking		1036.4	82.48	



**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2013	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
2/28/2013	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
3/25/2013	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
4/1/2013	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
5/13/2013	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
6/10/2013	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
7/17/2013	LW-22	1118.88	Pump is Blocking		1036.4	82.48	
8/15/2013	LW-22	1118.88	55.5	1063.38	1036.4	82.48	26.98
9/19/2013	LW-22	1118.88	55.1	1063.78	1036.4	82.48	27.38
10/10/2013	LW-22	1118.88	55.2	1063.68	1036.4	82.48	27.28
11/12/2013	LW-22	1118.88	55.5	1063.38	1036.4	82.48	26.98
12/4/2013	LW-22	1118.88	54.3	1064.58	1036.4	82.48	28.18
1/15/2014	LW-22	1118.88	54.3	1064.58	1036.4	82.48	28.18
2/10/2014	LW-22	1118.88	54.9	1063.98	1036.4	82.48	27.58
3/27/2014	LW-22	1118.88	53.8	1065.08	1036.4	82.48	28.68
4/15/2014	LW-22	1118.88	54.2	1064.68	1036.4	82.48	28.28
5/8/2014	LW-22	1118.88	54.1	1064.78	1036.4	82.48	28.38
6/9/2014	LW-22	1118.88	76.3	1042.58	1036.4	82.48	6.18
7/8/2014	LW-22	1118.88	76.1	1042.78	1036.4	82.48	6.38
8/18/2014	LW-22	1118.88	76	1042.88	1036.4	82.48	6.48
9/24/2014	LW-22	1118.88	76.15	1042.73	1036.4	82.48	6.33
10/10/2014	LW-22	1118.88	76.1	1042.78	1036.4	82.48	6.38
11/19/2014	LW-22	1118.88	70.9	1047.98	1036.4	82.48	11.58
12/2/2014	LW-22	1118.88	62.1	1056.78	1036.4	82.48	20.38

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/19/2015	LW-22	1118.88	58.1	1060.78	1036.4	82.48	24.38
2/17/2015	LW-22	1118.88	57.4	1061.48	1036.4	82.48	25.08
3/19/2015	LW-22	1118.88	73.3	1045.58	1036.4	82.48	9.18
4/7/2015	LW-22	1118.88	56.2	1062.68	1036.4	82.48	26.28
5/4/2015	LW-22	1118.88	76.15	1042.73	1036.4	82.48	6.33
6/17/2015	LW-22	1118.88	76.1	1042.78	1036.4	82.48	6.38
7/7/2015	LW-22	1118.88	76	1042.88	1036.4	82.48	6.48
8/6/2015	LW-22	1118.88	75.95	1042.93	1036.4	82.48	6.53
9/2/2015	LW-22	1118.88	76.3	1042.58	1036.4	82.48	6.18
10/1/2015	LW-22	1118.88	78.85	1040.03	1036.4	82.48	3.63
11/10/2015	LW-22	1118.88	77.65	1041.23	1036.4	82.48	4.83
12/10/2015	LW-22	1118.88	77.7	1041.18	1036.4	82.48	4.78
1/19/2016	LW-22	1118.88	77.8	1041.08	1036.4	82.48	4.68
2/11/2016	LW-22	1118.88	78.1	1040.78	1036.4	82.48	4.38
3/3/2016	LW-22	1118.88	77.65	1041.23	1036.4	82.48	4.83
4/18/2016	LW-22	1118.88	61.7	1057.18	1036.4	82.48	20.78
5/10/2016	LW-22	1118.88	67.7	1051.18	1036.4	82.48	14.78
6/21/2016	LW-22	1118.88	59.6	1059.28	1036.4	82.48	22.88
7/6/2016	LW-22	1118.88	59.2	1059.68	1036.4	82.48	23.28
8/15/2016	LW-22	1118.88	58.92	1059.96	1036.4	82.48	23.56
9/21/2016	LW-22	1118.88	58.5	1060.38	1036.4	82.48	23.98
10/7/2016	LW-22	1118.88	71.8	1047.08	1036.4	82.48	10.68
11/9/2016	LW-22	1118.88	61.25	1057.63	1036.4	82.48	21.23
12/8/2016	LW-22	1118.88	65.7	1053.18	1036.4	82.48	16.78

**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/18/2017	LW-22	1118.88	67	1051.88	1036.4	82.48	15.48
2/4/2017	LW-22	1118.88	59.45	1059.43	1036.4	82.48	23.03
3/9/2017	LW-22	1118.88	60.72	1058.16	1036.4	82.48	21.76
4/17/2017	LW-22	1118.88	57.9	1060.98	1036.4	82.48	24.58
5/17/2017	LW-22	1118.88	55.4	1063.48	1036.4	82.48	27.08
6/6/2017	LW-22	1118.88	55.5	1063.38	1036.4	82.48	26.98
7/12/2017	LW-22	1118.88	77.75	1041.13	1036.4	82.48	4.73
8/10/2017	LW-22	1118.88	77.8	1041.08	1036.4	82.48	4.68
9/14/2017	LW-22	1118.88	78.8	1040.08	1036.4	82.48	3.68
10/4/2017	LW-22	1118.88	70.3	1048.58	1036.4	82.48	12.18
11/1/2017	LW-22	1118.88	65.65	1053.23	1036.4	82.48	16.83
12/13/2017	LW-22	1118.88	60	1058.88	1036.4	82.48	22.48
1/12/2018	LW-22	1118.88	67.3	1051.58	1036.4	82.48	15.18
2/8/2018	LW-22	1118.88	60.3	1058.58	1036.4	82.48	22.18
3/13/2018	LW-22	1118.88	77.3	1041.58	1036.4	82.48	5.18
4/17/2018	LW-22	1118.88	59.1	1059.78	1036.4	82.48	23.38
5/18/2018	LW-22	1118.88	57.4	1061.48	1036.4	82.48	25.08
6/6/2018	LW-22	1118.88	56.9	1061.98	1036.4	82.48	25.58
7/11/2018	LW-22	1118.88	59.15	1059.73	1036.4	82.48	23.33
8/7/2018	LW-22	1118.88	56	1062.88	1036.4	82.48	26.48
9/10/2018	LW-22	1118.88	55.9	1062.98	1036.4	82.48	26.58
10/11/2018	LW-22	1118.88	57.51	1061.37	1036.4	82.48	24.97
11/14/2018	LW-22	1118.88	77.12	1041.76	1036.4	82.48	5.36
12/15/2018	LW-22	1118.88	77.7	1041.18	1036.4	82.48	4.78

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>	
1/16/2019	LW-22	1118.88	66.35	1052.53	1036.4	82.48	16.13	
2/15/2019	LW-22	1118.88	66.4	1052.48	1036.4	82.48	16.08	
3/14/2019	LW-22	1118.88	76.35	1042.53	1036.4	82.48	6.13	
4/24/2019	LW-22	1118.88	59.9	1058.98	1036.4	82.48	22.58	
5/15/2019	LW-22	1118.88	66.2	1052.68	1036.4	82.48	16.28	
6/5/2019	LW-22	1118.88	61.55	1057.33	1036.4	82.48	20.93	
7/17/2019	LW-22	1118.88	67.95	1050.93	1036.4	82.48	14.53	
8/19/2019	LW-22	1118.88	60.2	1058.68	1036.4	82.48	22.28	
9/16/2019	LW-22	1118.88	74.45	1044.43	1036.4	82.48	8.03	
10/8/2019	LW-22	1118.88	77.2	1041.68	1036.4	82.48	5.28	
11/20/2019	LW-22	1118.88	76.05	1042.83	1036.4	82.48	6.43	
12/2/2019	LW-22	1118.88	65.7	1053.18	1036.4	82.48	16.78	
1/15/2020	LW-22	1118.88	76.6	1042.28	1036.4	82.48	5.88	
2/10/2020	LW-22	1118.88	73.7	1045.18	1036.4	82.48	8.78	
3/24/2020	LW-22	1118.88	77.58	1041.3	1036.4	82.48	4.9	
4/14/2020	LW-22	1118.88	73.8	1045.08	1036.4	82.48	8.68	
5/12/2020	LW-22	1118.88	61.45	1057.43	1036.4	82.48	21.03	
6/3/2020	LW-22	1118.88	59.3	1059.58	1036.4	82.48	23.18	
7/20/2020	LW-22	1118.88	58.75	1060.13	1036.4	82.48	23.73	
8/17/2020	LW-22	1118.88	59.1	1059.78	1036.4	82.48	23.38	
9/2/2020	LW-22	1118.88	58.25	1060.63	1036.4	82.48	24.23	
10/7/2020	LW-22	1118.88	59.78	1059.1	1036.4	82.48	22.7	
11/27/2020	LW-22	1118.88	44.08	1074.8	1036.4	82.48	38.4	
12/28/2020	LW-22	1118.88	NR		1036.4	82.48		
1/22/2021	LW-22	1116.88	73.45	1043.43	1036.4	80.48	7.03	Approx 2ft cut off
2/18/2021	LW-22	1116.88	73.6	1043.28	1036.4	80.48	6.88	
3/8/2021	LW-22	1116.88	73.42	1043.46	1036.4	80.48	7.06	
4/15/2021	LW-22	1116.88	73.4	1043.48	1036.4	80.48	7.08	
5/19/2021	LW-22	1116.88	73.75	1043.13	1036.4	80.48	6.73	
6/4/2021	LW-22	1116.88	73.6	1043.28	1036.4	80.48	6.88	
7/15/2021	LW-22	1116.88	69.3	1047.58	1036.4	80.48	11.18	
8/23/2021	LW-22	1116.88	59.55	1057.33	1036.4	80.48	20.93	
9/14/2021	LW-22	1116.88	74.4	1042.48	1036.4	80.48	6.08	
10/15/2021	LW-22	1116.88	75.23	1041.65	1036.4	80.48	5.25	
11/9/2021	LW-22	1116.88	75.1	1041.78	1036.4	80.48	5.38	
12/1/2021	LW-22	1116.88	75.25	1041.63	1036.4	80.48	5.23	

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness
1/5/2022	LW-22	1115.05	75.15	1039.9	1036.4	78.65	3.5
2/8/2022	LW-22	1115.05	75.3	1039.75	1036.4	78.65	3.35
3/28/2022	LW-22	1115.05	75.35	1039.7	1036.4	78.65	3.3
4/20/2022	LW-22	1115.05	70.05	1045	1036.4	78.65	8.6
5/9/2022	LW-22	1115.05	74.95	1040.1	1036.4	78.65	3.7
6/20/2022	LW-22	1115.05	75.35	1039.7	1036.4	78.65	3.3
7/1/2022	LW-22	1115.05	75.28	1039.77	1036.4	78.65	3.37
8/4/2022	LW-22	1115.05	75.22	1039.83	1036.4	78.65	3.43
9/13/2022	LW-22	1115.05	75.2	1039.85	1036.4	78.65	3.45
10/11/2022	LW-22	1115.05	75.25	1039.8	1036.4	78.65	3.4
11/10/2022	LW-22	1115.05	75.15	1039.9	1036.4	78.65	3.5
12/1/2022	LW-22	1115.05	75.11	1039.94	1036.4	78.65	3.54
1/24/2023	LW-22	1115.05	75.00	1040.05	1036.4	78.65	3.65
2/6/2023	LW-22	1115.05	74.96	1040.09	1036.4	78.65	3.69
3/23/2023	LW-22	1115.05	75.42	1039.63	1036.4	78.65	3.23
4/12/2023	LW-22	1115.05	75.25	1039.8	1036.4	78.65	3.4
5/9/2023	LW-22	1115.05	75.15	1039.9	1036.4	78.65	3.5
6/7/2023	LW-22	1115.05	75.05	1040	1036.4	78.65	3.6
7/12/2023	LW-22	1115.05	72.9	1042.15	1036.4	78.65	5.75
8/7/2023	LW-22	1115.05	72.95	1042.1	1036.4	78.65	5.7
9/5/2023	LW-22	1115.05	73.35	1041.7	1036.4	78.65	5.3
10/20/2023	LW-22	1115.05	73.25	1041.8	1036.4	78.65	5.4
11/13/2023	LW-22	1115.05	72.9	1042.15	1036.4	78.65	5.75
12/14/2023	LW-22	1115.05	73.83	1041.22	1036.4	78.65	4.82
1/8/2024	LW-22	1115.05	74.1	1040.95	1036.4	78.65	4.55
2/8/2024	LW-22	1115.05	74.35	1040.7	1036.4	78.65	4.3
3/6/2024	LW-22	1115.05	74.03	1041.02	1036.4	78.65	4.62
4/1/2024	LW-22	1115.05	74.15	1040.9	1036.4	78.65	4.5
5/22/2024	LW-22	1115.05	74.11	1040.94	1036.4	78.65	4.54
6/3/2024	LW-22	1115.05	74.25	1040.8	1036.4	78.65	4.4
7/9/2024	LW-22	1115.05	74.3	1040.75	1036.4	78.65	4.35
8/6/2024	LW-22	1115.05	73.94	1041.11	1036.4	78.65	4.71
9/18/2024	LW-22	1115.05	77.8	1037.25	1036.4	78.65	0.85
10/25/2024	LW-22	1115.05	74.5	1040.55	1036.4	78.65	4.15
11/20/2024	LW-22	1115.05	73.94	1041.11	1036.4	78.65	4.71
12/9/2024	LW-22	1115.05	74.38	1040.67	1036.4	78.65	4.27

Replaced Pump 6/2023

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2011	LW-23	1121.22	36.5	1084.72	1036.9	84.32	47.82
2/24/2011	LW-23	1121.22	37.1	1084.12	1036.9	84.32	47.22
3/4/2011	LW-23	1121.22	37.3	1083.92	1036.9	84.32	47.02
4/29/2011	LW-23	1121.22	37.9	1083.32	1036.9	84.32	46.42
5/17/2011	LW-23	1121.22	38.4	1082.82	1036.9	84.32	45.92
6/7/2011	LW-23	1121.22	38.4	1082.82	1036.9	84.32	45.92
7/6/2011	LW-23	1121.22	38.4	1082.82	1036.9	84.32	45.92
8/9/2011	LW-23	1121.22	38	1083.22	1036.9	84.32	46.32
9/22/2011	LW-23	1121.22	40.8	1080.42	1036.9	84.32	43.52
10/4/2011	LW-23	1121.22	40.7	1080.52	1036.9	84.32	43.62
12/9/2011	LW-23	1121.22	40.3	1080.92	1036.9	84.32	44.02
1/18/2012	LW-23	1121.22	40	1081.22	1036.9	84.32	44.32
2/27/2012	LW-23	1121.22	39.9	1081.32	1036.9	84.32	44.42
3/13/2012	LW-23	1121.22	40.1	1081.12	1036.9	84.32	44.22
4/17/2012	LW-23	1121.22	40.5	1080.72	1036.9	84.32	43.82
5/16/2012	LW-23	1121.22	40.5	1080.72	1036.9	84.32	43.82
6/26/2012	LW-23	1121.22	43.2	1078.02	1036.9	84.32	41.12
7/18/2012	LW-23	1121.22	42	1079.22	1036.9	84.32	42.32
9/19/2012	LW-23	1121.22	61	1060.22	1036.9	84.32	23.32
10/24/2012	LW-23	1121.22	47.7	1073.52	1036.9	84.32	36.62
11/21/2012	LW-23	1121.22	Pump is Blocking		1036.9	84.32	
12/11/2012	LW-23	1121.22	Pump is Blocking		1036.9	84.32	

**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2013	LW-23	1121.22	Pump is Blocking		1036.9	84.32	
2/28/2013	LW-23	1121.22	Pump is Blocking		1036.9	84.32	
3/25/2013	LW-23	1121.22	Pump is Blocking		1036.9	84.32	
4/1/2013	LW-23	1121.22	44.6	1076.62	1036.9	84.32	39.72
5/13/2013	LW-23	1121.22	Pump is Blocking		1036.9	84.32	
6/10/2013	LW-23	1121.22	Pump is Blocking		1036.9	84.32	
7/17/2013	LW-23	1121.22	Pump is Blocking		1036.9	84.32	
8/15/2013	LW-23	1121.22	46.65	1074.57	1036.9	84.32	37.67
9/19/2013	LW-23	1121.22	47.5	1073.72	1036.9	84.32	36.82
10/10/2013	LW-23	1121.22	Broken Tube		1036.9	84.32	
11/12/2013	LW-23	1121.22	Broken Tube		1036.9	84.32	
12/4/2013	LW-23	1121.22	Broken Tube		1036.9	84.32	
1/15/2014	LW-23	1121.22	Broken Tube		1036.9	84.32	
2/10/2014	LW-23	1121.22	Broken Tube		1036.9	84.32	
3/27/2014	LW-23	1121.22	56.6	1064.62	1036.9	84.32	27.72
4/15/2014	LW-23	1121.22	73.4	1047.82	1036.9	84.32	10.92
5/8/2014	LW-23	1121.22	73.4	1047.82	1036.9	84.32	10.92
6/9/2014	LW-23	1121.22	74.6	1046.62	1036.9	84.32	9.72
7/8/2014	LW-23	1121.22	65.4	1055.82	1036.9	84.32	18.92
8/18/2014	LW-23	1121.22	73.1	1048.12	1036.9	84.32	11.22
9/24/2014	LW-23	1121.22	74.8	1046.42	1036.9	84.32	9.52
10/10/2014	LW-23	1121.22	74.95	1046.27	1036.9	84.32	9.37
11/19/2014	LW-23	1121.22	61.6	1059.62	1036.9	84.32	22.72
12/2/2014	LW-23	1121.22	57.3	1063.92	1036.9	84.32	27.02

**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/19/2015	LW-23	1121.22	52.8	1068.42	1036.9	84.32	31.52
2/17/2015	LW-23	1121.22	51.7	1069.52	1036.9	84.32	32.62
3/19/2015	LW-23	1121.22	51.3	1069.92	1036.9	84.32	33.02
4/7/2015	LW-23	1121.22	50.4	1070.82	1036.9	84.32	33.92
5/4/2015	LW-23	1121.22	71.8	1049.42	1036.9	84.32	12.52
6/17/2015	LW-23	1121.22	75.3	1045.92	1036.9	84.32	9.02
7/7/2015	LW-23	1121.22	74.3	1046.92	1036.9	84.32	10.02
8/6/2015	LW-23	1121.22	75.4	1045.82	1036.9	84.32	8.92
9/2/2015	LW-23	1121.22	75.7	1045.52	1036.9	84.32	8.62
10/1/2015	LW-23	1121.22	69.4	1051.82	1036.9	84.32	14.92
11/10/2015	LW-23	1121.22	73.9	1047.32	1036.9	84.32	10.42
12/10/2015	LW-23	1121.22	73.9	1047.32	1036.9	84.32	10.42
1/19/2016	LW-23	1121.22	58.17	1063.05	1036.9	84.32	26.15
2/11/2016	LW-23	1121.22	57.2	1064.02	1036.9	84.32	27.12
3/3/2016	LW-23	1121.22	53.45	1067.77	1036.9	84.32	30.87
4/18/2016	LW-23	1121.22	52	1069.22	1036.9	84.32	32.32
5/10/2016	LW-23	1121.22	52.4	1068.82	1036.9	84.32	31.92
6/21/2016	LW-23	1121.22	50.6	1070.62	1036.9	84.32	33.72
7/6/2016	LW-23	1121.22	49.95	1071.27	1036.9	84.32	34.37
8/15/2016	LW-23	1121.22	49.77	1071.45	1036.9	84.32	34.55
9/21/2016	LW-23	1121.22	49.2	1072.02	1036.9	84.32	35.12
10/7/2016	LW-23	1121.22	49.3	1071.92	1036.9	84.32	35.02
11/9/2016	LW-23	1121.22	50.2	1071.02	1036.9	84.32	34.12
12/8/2016	LW-23	1121.22	50.25	1070.97	1036.9	84.32	34.07



**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/18/2017	LW-23	1121.22	49.6	1071.62	1036.9	84.32	34.72
2/4/2017	LW-23	1121.22	49.95	1071.27	1036.9	84.32	34.37
3/9/2017	LW-23	1121.22	49.5	1071.72	1036.9	84.32	34.82
4/17/2017	LW-23	1121.22	49.5	1071.72	1036.9	84.32	34.82
5/17/2017	LW-23	1121.22	48.7	1072.52	1036.9	84.32	35.62
6/6/2017	LW-23	1121.22	49.2	1072.02	1036.9	84.32	35.12
7/12/2017	LW-23	1121.22	49.15	1072.07	1036.9	84.32	35.17
8/10/2017	LW-23	1121.22	73.5	1047.72	1036.9	84.32	10.82
9/14/2017	LW-23	1121.22	74.8	1046.42	1036.9	84.32	9.52
10/4/2017	LW-23	1121.22	74.8	1046.42	1036.9	84.32	9.52
11/1/2017	LW-23	1121.22	57.55	1063.67	1036.9	84.32	26.77
12/13/2017	LW-23	1121.22	52.35	1068.87	1036.9	84.32	31.97
1/12/2018	LW-23	1121.22	74.7	1046.52	1036.9	84.32	9.62
2/8/2018	LW-23	1121.22	56.3	1064.92	1036.9	84.32	28.02
3/13/2018	LW-23	1121.22	74.9	1046.32	1036.9	84.32	9.42
4/17/2018	LW-23	1121.22	74.8	1046.42	1036.9	84.32	9.52
5/18/2018	LW-23	1121.22	73.7	1047.52	1036.9	84.32	10.62
6/6/2018	LW-23	1121.22	74.6	1046.62	1036.9	84.32	9.72
7/11/2018	LW-23	1121.22	74.8	1046.42	1036.9	84.32	9.52
8/7/2018	LW-23	1121.22	73.65	1047.57	1036.9	84.32	10.67
9/10/2018	LW-23	1121.22	74.76	1046.46	1036.9	84.32	9.56
10/11/2018	LW-23	1121.22	74.6	1046.62	1036.9	84.32	9.72
11/14/2018	LW-23	1121.22	74.8	1046.42	1036.9	84.32	9.52
12/15/2018	LW-23	1121.22	74.7	1046.52	1036.9	84.32	9.62

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/16/2019	LW-23	1121.22	74.6	1046.62	1036.9	84.32	9.72
2/15/2019	LW-23	1121.22	74.75	1046.47	1036.9	84.32	9.57
3/14/2019	LW-23	1121.22	74.7	1046.52	1036.9	84.32	9.62
4/24/2019	LW-23	1121.22	73.8	1047.42	1036.9	84.32	10.52
5/15/2019	LW-23	1121.22	74.55	1046.67	1036.9	84.32	9.77
6/5/2019	LW-23	1121.22	58.62	1062.6	1036.9	84.32	25.7
7/17/2019	LW-23	1121.22	74.79	1046.43	1036.9	84.32	9.53
8/19/2019	LW-23	1121.22	72.5	1048.72	1036.9	84.32	11.82
9/16/2019	LW-23	1121.22	71.88	1049.34	1036.9	84.32	12.44
10/8/2019	LW-23	1121.22	74.3	1046.92	1036.9	84.32	10.02
11/20/2019	LW-23	1121.22	74.75	1046.47	1036.9	84.32	9.57
12/2/2019	LW-23	1121.22	74.83	1046.39	1036.9	84.32	9.49
1/15/2020	LW-23	1121.22	72.93	1048.29	1036.9	84.32	11.39
2/10/2020	LW-23	1121.22	74.4	1046.82	1036.9	84.32	9.92
3/24/2020	LW-23	1121.22	74.42	1046.8	1036.9	84.32	9.9
4/14/2020	LW-23	1121.22	72.25	1048.97	1036.9	84.32	12.07
5/12/2020	LW-23	1121.22	71.65	1049.57	1036.9	84.32	12.67
6/3/2020	LW-23	1121.22	69.95	1051.27	1036.9	84.32	14.37
7/20/2020	LW-23	1121.22	72.1	1049.12	1036.9	84.32	12.22
8/17/2020	LW-23	1121.22	72.9	1048.32	1036.9	84.32	11.42
9/2/2020	LW-23	1121.22	59.9	1061.32	1036.9	84.32	24.42
10/7/2020	LW-23	1121.22	55.2	1066.02	1036.9	84.32	29.12
11/27/2020	LW-23	1121.22	68.8	1052.42	1036.9	84.32	15.52
12/28/2020	LW-23	1121.22	55.6	1065.62	1036.9	84.32	28.72
1/22/2021	LW-23	1119.22	52.8	1066.42	1036.9	82.32	29.52
2/18/2021	LW-23	1119.22	52.1	1067.12	1036.9	82.32	30.22
3/8/2021	LW-23	1119.22	51.59	1067.63	1036.9	82.32	30.73
4/15/2021	LW-23	1119.22	50.58	1068.64	1036.9	82.32	31.74
5/19/2021	LW-23	1119.22	50.5	1068.72	1036.9	82.32	31.82
6/4/2021	LW-23	1119.22	50.6	1068.62	1036.9	82.32	31.72
7/15/2021	LW-23	1119.22	58.3	1060.92	1036.9	82.32	24.02
8/23/2021	LW-23	1119.22	52.55	1066.67	1036.9	82.32	29.77
9/14/2021	LW-23	1119.22	72.62	1046.6	1036.9	82.32	9.7
10/15/2021	LW-23	1119.22	55.05	1064.17	1036.9	82.32	27.27
11/9/2021	LW-23	1119.22	53.5	1065.72	1036.9	82.32	28.82
12/1/2021	LW-23	1119.22	52.35	1066.87	1036.9	82.32	29.97

Approx 2ft cut off

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness	
1/5/2022	LW-23	1118.23	51.71	1066.52	1036.9	81.33	29.62	
2/8/2022	LW-23	1118.23	51.25	1066.98	1036.9	81.33	30.08	
3/28/2022	LW-23	1118.23	51.22	1067.01	1036.9	81.33	30.11	
4/20/2022	LW-23	1118.23	50.5	1067.73	1036.9	81.33	30.83	
5/9/2022	LW-23	1118.23	49.95	1068.28	1036.9	81.33	31.38	
6/20/2022	LW-23	1118.23	55.95	1062.28	1036.9	81.33	25.38	
7/1/2022	LW-23	1118.23	50.93	1067.3	1036.9	81.33	30.4	
8/4/2022	LW-23	1118.23	50.91	1067.32	1036.9	81.33	30.42	
9/13/2022	LW-23	1118.23	50.95	1067.28	1036.9	81.33	30.38	
10/11/2022	LW-23	1118.23	72.3	1045.93	1036.9	81.33	9.03	
11/10/2022	LW-23	1118.23	72.31	1045.92	1036.9	81.33	9.02	
12/1/2022	LW-23	1118.23	72.05	1046.18	1036.9	81.33	9.28	
1/24/2023	LW-23	1118.23	53.85	1064.38	1036.9	81.33	27.48	
2/6/2023	LW-23	1118.23	53.12	1065.11	1036.9	81.33	28.21	
3/23/2023	LW-23	1118.23	51.85	1066.38	1036.9	81.33	29.48	
4/12/2023	LW-23	1118.23	52.1	1066.13	1036.9	81.33	29.23	
5/9/2023	LW-23	1118.23	52.01	1066.22	1036.9	81.33	29.32	
6/7/2023	LW-23	1118.23	51.85	1066.38	1036.9	81.33	29.48	Replaced Pump 6/2023
7/12/2023	LW-23	1118.23	68.8	1049.43	1036.9	81.33	12.53	
8/7/2023	LW-23	1118.23	70	1048.23	1036.9	81.33	11.33	
9/5/2023	LW-23	1118.23	70.01	1048.22	1036.9	81.33	11.32	
10/20/2023	LW-23	1118.23	70.4	1047.83	1036.9	81.33	10.93	
11/13/2023	LW-23	1118.23	70.19	1048.04	1036.9	81.33	11.14	
12/14/2023	LW-23	1118.23	70.05	1048.18	1036.9	81.33	11.28	
1/8/2024	LW-23	1118.23	66.65	1051.58	1036.9	81.33	14.68	
2/8/2024	LW-23	1118.23	70.17	1048.06	1036.9	81.33	11.16	
3/6/2024	LW-23	1118.23	70.15	1048.08	1036.9	81.33	11.18	
4/1/2024	LW-23	1118.23	70.00	1048.23	1036.9	81.33	11.33	
5/22/2024	LW-23	1118.23	69.87	1048.36	1036.9	81.33	11.46	
6/3/2024	LW-23	1118.23	57.62	1060.61	1036.9	81.33	23.71	called repair
7/9/2024	LW-23	1118.23	70.23	1048.00	1036.9	81.33	11.1	
8/6/2024	LW-23	1118.23	67.00	1051.23	1036.9	81.33	14.33	
9/18/2024	LW-23	1118.23	74.1	1044.13	1036.9	81.33	7.23	
10/25/2024	LW-23	1118.23	70.23	1048.00	1036.9	81.33	11.1	
11/20/2024	LW-23	1118.23	69.65	1048.58	1036.9	81.33	11.68	
12/9/2024	LW-23	1118.23	69.8	1048.43	1036.9	81.33	11.53	

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2011	LW-24	1113.08	72.3	1040.78	1032.9	80.18	7.88
2/24/2011	LW-24	1113.08	72.3	1040.78	1032.9	80.18	7.88
3/4/2011	LW-24	1113.08	72.8	1040.28	1032.9	80.18	7.38
4/29/2011	LW-24	1113.08	72.7	1040.38	1032.9	80.18	7.48
5/17/2011	LW-24	1113.08	72.8	1040.28	1032.9	80.18	7.38
6/7/2011	LW-24	1113.08	72.6	1040.48	1032.9	80.18	7.58
7/6/2011	LW-24	1113.08	72.4	1040.68	1032.9	80.18	7.78
8/9/2011	LW-24	1113.08	60.9	1052.18	1032.9	80.18	19.28
9/22/2011	LW-24	1113.08	72.9	1040.18	1032.9	80.18	7.28
10/4/2011	LW-24	1113.08	72.5	1040.58	1032.9	80.18	7.68
12/9/2011	LW-24	1113.08	72.5	1040.58	1032.9	80.18	7.68
1/18/2012	LW-24	1113.08	72.3	1040.78	1032.9	80.18	7.88
2/27/2012	LW-24	1113.08	72.5	1040.58	1032.9	80.18	7.68
3/13/2012	LW-24	1113.08	72.5	1040.58	1032.9	80.18	7.68
4/17/2012	LW-24	1113.08	72	1041.08	1032.9	80.18	8.18
5/16/2012	LW-24	1113.08	72.3	1040.78	1032.9	80.18	7.88
6/26/2012	LW-24	1113.08	Pump is Blocking		1032.9	80.18	
7/18/2012	LW-24	1113.08	Pump is Blocking		1032.9	80.18	
9/19/2012	LW-24	1113.08	72.4	1040.68	1032.9	80.18	7.78
10/24/2012	LW-24	1113.08	72.1	1040.98	1032.9	80.18	8.08
11/21/2012	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
12/11/2012	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2013	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
2/28/2013	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
3/25/2013	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38
4/1/2013	LW-24	1113.08	72	1041.08	1032.9	80.18	8.18
5/13/2013	LW-24	1113.08	71.5	1041.58	1032.9	80.18	8.68
6/10/2013	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38
7/17/2013	LW-24	1113.08	Pump is Blocking		1032.9	80.18	
8/15/2013	LW-24	1113.08	75.5	1037.58	1032.9	80.18	4.68
9/19/2013	LW-24	1113.08	74.85	1038.23	1032.9	80.18	5.33
10/10/2013	LW-24	1113.08	74.5	1038.58	1032.9	80.18	5.68
11/12/2013	LW-24	1113.08	73.5	1039.58	1032.9	80.18	6.68
12/4/2013	LW-24	1113.08	72.5	1040.58	1032.9	80.18	7.68
1/15/2014	LW-24	1113.08	72.2	1040.88	1032.9	80.18	7.98
2/10/2014	LW-24	1113.08	72.2	1040.88	1032.9	80.18	7.98
3/27/2014	LW-24	1113.08	71.6	1041.48	1032.9	80.18	8.58
4/15/2014	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
5/8/2014	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
6/9/2014	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08
7/8/2014	LW-24	1113.08	71.7	1041.38	1032.9	80.18	8.48
8/18/2014	LW-24	1113.08	71.7	1041.38	1032.9	80.18	8.48
9/24/2014	LW-24	1113.08	71.7	1041.38	1032.9	80.18	8.48
10/10/2014	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38
11/19/2014	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
12/2/2014	LW-24	1113.08	71.5	1041.58	1032.9	80.18	8.68

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/19/2015	LW-24	1113.08	71.7	1041.38	1032.9	80.18	8.48
2/17/2015	LW-24	1113.08	71.6	1041.48	1032.9	80.18	8.58
3/19/2015	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38
4/7/2015	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08
5/4/2015	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
6/17/2015	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
7/7/2015	LW-24	1113.08	72	1041.08	1032.9	80.18	8.18
8/6/2015	LW-24	1113.08	73	1040.08	1032.9	80.18	7.18
9/2/2015	LW-24	1113.08	74	1039.08	1032.9	80.18	6.18
10/1/2015	LW-24	1113.08	74.15	1038.93	1032.9	80.18	6.03
11/10/2015	LW-24	1113.08	72.4	1040.68	1032.9	80.18	7.78
12/10/2015	LW-24	1113.08	73.6	1039.48	1032.9	80.18	6.58
1/19/2016	LW-24	1113.08	72.05	1041.03	1032.9	80.18	8.13
2/11/2016	LW-24	1113.08	75.35	1037.73	1032.9	80.18	4.83
3/3/2016	LW-24	1113.08	71.85	1041.23	1032.9	80.18	8.33
4/18/2016	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38
5/10/2016	LW-24	1113.08	74.8	1038.28	1032.9	80.18	5.38
6/21/2016	LW-24	1113.08	71.75	1041.33	1032.9	80.18	8.43
7/6/2016	LW-24	1113.08	71.75	1041.33	1032.9	80.18	8.43
8/15/2016	LW-24	1113.08	71.85	1041.23	1032.9	80.18	8.33
9/21/2016	LW-24	1113.08	71.95	1041.13	1032.9	80.18	8.23
10/7/2016	LW-24	1113.08	72	1041.08	1032.9	80.18	8.18
11/9/2016	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
12/8/2016	LW-24	1113.08	72.1	1040.98	1032.9	80.18	8.08

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/18/2017	LW-24	1113.08	71.93	1041.15	1032.9	80.18	8.25
2/4/2017	LW-24	1113.08	72	1041.08	1032.9	80.18	8.18
3/9/2017	LW-24	1113.08	71.97	1041.11	1032.9	80.18	8.21
4/17/2017	LW-24	1113.08	71.75	1041.33	1032.9	80.18	8.43
5/17/2017	LW-24	1113.08	71.5	1041.58	1032.9	80.18	8.68
6/6/2017	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38
7/12/2017	LW-24	1113.08	71.7	1041.38	1032.9	80.18	8.48
8/10/2017	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
9/14/2017	LW-24	1113.08	72	1041.08	1032.9	80.18	8.18
10/4/2017	LW-24	1113.08	72.4	1040.68	1032.9	80.18	7.78
11/1/2017	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
12/13/2017	LW-24	1113.08	71.95	1041.13	1032.9	80.18	8.23
1/12/2018	LW-24	1113.08	72.3	1040.78	1032.9	80.18	7.88
2/8/2018	LW-24	1113.08	72.1	1040.98	1032.9	80.18	8.08
3/13/2018	LW-24	1113.08	72.3	1040.78	1032.9	80.18	7.88
4/17/2018	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
5/18/2018	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
6/6/2018	LW-24	1113.08	71.88	1041.2	1032.9	80.18	8.3
7/11/2018	LW-24	1113.08	71.75	1041.33	1032.9	80.18	8.43
8/7/2018	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38
9/10/2018	LW-24	1113.08	71.75	1041.33	1032.9	80.18	8.43
10/11/2018	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28
11/14/2018	LW-24	1113.08	71.88	1041.2	1032.9	80.18	8.3
12/15/2018	LW-24	1113.08	71.9	1041.18	1032.9	80.18	8.28

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness	
1/16/2019	LW-24	1113.08	71.95	1041.13	1032.9	80.18	8.23	
2/15/2019	LW-24	1113.08	72.13	1040.95	1032.9	80.18	8.05	
3/14/2019	LW-24	1113.08	71.92	1041.16	1032.9	80.18	8.26	
4/24/2019	LW-24	1113.08	72	1041.08	1032.9	80.18	8.18	
5/15/2019	LW-24	1113.08	72.05	1041.03	1032.9	80.18	8.13	
6/5/2019	LW-24	1113.08	71.91	1041.17	1032.9	80.18	8.27	
7/17/2019	LW-24	1113.08	71.8	1041.28	1032.9	80.18	8.38	
8/19/2019	LW-24	1113.08	72.1	1040.98	1032.9	80.18	8.08	
9/16/2019	LW-24	1113.08	72.22	1040.86	1032.9	80.18	7.96	
10/8/2019	LW-24	1113.08	72.1	1040.98	1032.9	80.18	8.08	
11/20/2019	LW-24	1113.08	72.0	1041.08	1032.9	80.18	8.18	
12/2/2019	LW-24	1113.08	NR	NR	1032.9	80.18	NR	
1/15/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
2/10/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
3/24/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
4/14/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
5/12/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
6/3/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
7/20/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
8/17/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
9/2/2020	LW-24	1113.08	71.1	1041.98	1032.9	80.18	9.08	obstruction at 71.1
10/7/2020	LW-24	1113.08	NR		1032.9	80.18		
11/27/2020	LW-24	1113.08	NR		1032.9	80.18		
12/28/2020	LW-24	1111.08	71.00	1040.08	1032.9	78.18	7.18	Approx 2ft cut off
1/22/2021	LW-24	1111.08	71.00	1040.08	1032.9	78.18	7.18	
2/18/2021	LW-24	1111.08	71.00	1040.08	1032.9	78.18	7.18	
3/8/2021	LW-24	1111.08	70.92	1040.16	1032.9	78.18	7.26	
4/15/2021	LW-24	1111.08	70.70	1040.38	1032.9	78.18	7.48	
5/19/2021	LW-24	1111.08	70.58	1040.5	1032.9	78.18	7.6	
6/4/2021	LW-24	1111.08	70.55	1040.53	1032.9	78.18	7.63	
7/15/2021	LW-24	1111.08	70.70	1040.38	1032.9	78.18	7.48	
8/23/2021	LW-24	1111.08	70.65	1040.43	1032.9	78.18	7.53	
9/14/2021	LW-24	1111.08	70.69	1040.39	1032.9	78.18	7.49	
10/15/2021	LW-24	1111.08	70.90	1040.18	1032.9	78.18	7.28	
11/9/2021	LW-24	1111.08	70.85	1040.23	1032.9	78.18	7.33	
12/1/2021	LW-24	1111.08	70.65	1040.43	1032.9	78.18	7.53	



**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/5/2022	LW-24	1110.33	70.87	1039.46	1032.9	77.43	6.56
2/8/2022	LW-24	1110.33	70.64	1039.69	1032.9	77.43	6.79
3/28/2022	LW-24	1110.33	70.73	1039.6	1032.9	77.43	6.7
4/20/2022	LW-24	1110.33	70.40	1039.93	1032.9	77.43	7.03
5/9/2022	LW-24	1110.33	70.60	1039.73	1032.9	77.43	6.83
6/20/2022	LW-24	1110.33	70.53	1039.8	1032.9	77.43	6.9
7/1/2022	LW-24	1110.33	70.60	1039.73	1032.9	77.43	6.83
8/4/2022	LW-24	1110.33	70.65	1039.68	1032.9	77.43	6.78
9/13/2022	LW-24	1110.33	70.53	1039.8	1032.9	77.43	6.9
10/11/2022	LW-24	1110.33	70.60	1039.73	1032.9	77.43	6.83
11/10/2022	LW-24	1110.33	70.68	1039.65	1032.9	77.43	6.75
12/1/2022	LW-24	1110.33	70.86	1039.47	1032.9	77.43	6.57
1/24/2023	LW-24	1110.33	70.95	1039.38	1032.9	77.43	6.48
2/6/2023	LW-24	1110.33	70.53	1039.8	1032.9	77.43	6.9
3/23/2023	LW-24	1110.33	70.68	1039.65	1032.9	77.43	6.75
4/12/2023	LW-24	1110.33	70.48	1039.85	1032.9	77.43	6.95
5/9/2023	LW-24	1110.33	70.69	1039.64	1032.9	77.43	6.74
6/7/2023	LW-24	1110.33	70.50	1039.83	1032.9	77.43	6.93
7/12/2023	LW-24	1110.33	70.72	1039.61	1032.9	77.43	6.71
8/7/2023	LW-24	1110.33	70.89	1039.44	1032.9	77.43	6.54
9/5/2023	LW-24	1110.33	70.83	1039.5	1032.9	77.43	6.6
10/20/2023	LW-24	1110.33	71.10	1039.23	1032.9	77.43	6.33
11/13/2023	LW-24	1110.33	71.35	1038.98	1032.9	77.43	6.08
12/14/2023	LW-24	1110.33	71.45	1038.88	1032.9	77.43	5.98
1/8/2024	LW-24	1110.33	71.18	1039.15	1032.9	77.43	6.25
2/8/2024	LW-24	1110.33	70.93	1039.4	1032.9	77.43	6.5
3/6/2024	LW-24	1110.33	71.28	1039.05	1032.9	77.43	6.15
4/1/2024	LW-24	1110.33	71.09	1039.24	1032.9	77.43	6.34
5/22/2024	LW-24	1110.33	71.04	1039.29	1032.9	77.43	6.39
6/3/2024	LW-24	1110.33	70.70	1039.63	1032.9	77.43	6.73
7/9/2024	LW-24	1110.33	70.77	1039.56	1032.9	77.43	6.66
8/6/2024	LW-24	1110.33	70.78	1039.55	1032.9	77.43	6.65
9/18/2024	LW-24	1110.33	70.81	1039.52	1032.9	77.43	6.62
10/25/2024	LW-24	1110.33	71.00	1039.33	1032.9	77.43	6.43
11/20/2024	LW-24	1110.33	70.44	1039.89	1032.9	77.43	6.99
12/9/2024	LW-24	1110.33	70.80	1039.53	1032.9	77.43	6.63

**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2011	LW-25	1118.95	42.1	1076.85	1046.3	72.65	30.55
2/24/2011	LW-25	1118.95	42.1	1076.85	1046.3	72.65	30.55
3/4/2011	LW-25	1118.95	42.5	1076.45	1046.3	72.65	30.15
4/29/2011	LW-25	1118.95	43.1	1075.85	1046.3	72.65	29.55
5/17/2011	LW-25	1118.95	43.5	1075.45	1046.3	72.65	29.15
6/7/2011	LW-25	1118.95	43.3	1075.65	1046.3	72.65	29.35
7/6/2011	LW-25	1118.95	43.1	1075.85	1046.3	72.65	29.55
8/9/2011	LW-25	1118.95	42.7	1076.25	1046.3	72.65	29.95
9/22/2011	LW-25	1118.95	43	1075.95	1046.3	72.65	29.65
10/4/2011	LW-25	1118.95	43	1075.95	1046.3	72.65	29.65
12/9/2011	LW-25	1118.95	43.1	1075.85	1046.3	72.65	29.55
1/18/2012	LW-25	1118.95	42.8	1076.15	1046.3	72.65	29.85
2/27/2012	LW-25	1118.95	43.2	1075.75	1046.3	72.65	29.45
3/13/2012	LW-25	1118.95	42.9	1076.05	1046.3	72.65	29.75
4/17/2012	LW-25	1118.95	42.9	1076.05	1046.3	72.65	29.75
5/16/2012	LW-25	1118.95	43.3	1075.65	1046.3	72.65	29.35
6/26/2012	LW-25	1118.95	45.2	1073.75	1046.3	72.65	27.45
7/18/2012	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
9/19/2012	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
10/24/2012	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
11/21/2012	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
12/11/2012	LW-25	1118.95	Pump is Blocking		1046.3	72.65	

**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/10/2013	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
2/28/2013	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
3/25/2013	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
4/1/2013	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
5/13/2013	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
6/10/2013	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
7/17/2013	LW-25	1118.95	Pump is Blocking		1046.3	72.65	
8/15/2013	LW-25	1118.95	55.2	1063.75	1046.3	72.65	17.45
9/19/2013	LW-25	1118.95	69.1	1049.85	1046.3	72.65	3.55
10/10/2013	LW-25	1118.95	69.1	1049.85	1046.3	72.65	3.55
11/12/2013	LW-25	1118.95	69.2	1049.75	1046.3	72.65	3.45
12/4/2013	LW-25	1118.95	55.2	1063.75	1046.3	72.65	17.45
1/15/2014	LW-25	1118.95	52.5	1066.45	1046.3	72.65	20.15
2/10/2014	LW-25	1118.95	51.2	1067.75	1046.3	72.65	21.45
3/27/2014	LW-25	1118.95	68.45	1050.5	1046.3	72.65	4.2
4/15/2014	LW-25	1118.95	69	1049.95	1046.3	72.65	3.65
5/8/2014	LW-25	1118.95	69	1049.95	1046.3	72.65	3.65
6/9/2014	LW-25	1118.95	71.1	1047.85	1046.3	72.65	1.55
7/8/2014	LW-25	1118.95	69.05	1049.9	1046.3	72.65	3.6
8/18/2014	LW-25	1118.95	69.1	1049.85	1046.3	72.65	3.55
9/24/2014	LW-25	1118.95	69.2	1049.75	1046.3	72.65	3.45
10/10/2014	LW-25	1118.95	69.05	1049.9	1046.3	72.65	3.6
11/19/2014	LW-25	1118.95	59.5	1059.45	1046.3	72.65	13.15
12/2/2014	LW-25	1118.95	55.2	1063.75	1046.3	72.65	17.45

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/19/2015	LW-25	1118.95	52.3	1066.65	1046.3	72.65	20.35
2/17/2015	LW-25	1118.95	51.4	1067.55	1046.3	72.65	21.25
3/19/2015	LW-25	1118.95	50.5	1068.45	1046.3	72.65	22.15
4/7/2015	LW-25	1118.95	49.8	1069.15	1046.3	72.65	22.85
5/4/2015	LW-25	1118.95	50.2	1068.75	1046.3	72.65	22.45
6/17/2015	LW-25	1118.95	49.25	1069.7	1046.3	72.65	23.4
7/7/2015	LW-25	1118.95	49.1	1069.85	1046.3	72.65	23.55
8/6/2015	LW-25	1118.95	49.5	1069.45	1046.3	72.65	23.15
9/2/2015	LW-25	1118.95	48.6	1070.35	1046.3	72.65	24.05
10/1/2015	LW-25	1118.95	48.5	1070.45	1046.3	72.65	24.15
11/10/2015	LW-25	1118.95	68.45	1050.5	1046.3	72.65	4.2
12/10/2015	LW-25	1118.95	68.2	1050.75	1046.3	72.65	4.45
1/19/2016	LW-25	1118.95	68.57	1050.38	1046.3	72.65	4.08
2/11/2016	LW-25	1118.95	70.4	1048.55	1046.3	72.65	2.25
3/3/2016	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
4/18/2016	LW-25	1118.95	68.55	1050.4	1046.3	72.65	4.1
5/10/2016	LW-25	1118.95	69.9	1049.05	1046.3	72.65	2.75
6/21/2016	LW-25	1118.95	68.55	1050.4	1046.3	72.65	4.1
7/6/2016	LW-25	1118.95	68.55	1050.4	1046.3	72.65	4.1
8/15/2016	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
9/21/2016	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
10/7/2016	LW-25	1118.95	68.65	1050.3	1046.3	72.65	4
11/9/2016	LW-25	1118.95	68.5	1050.45	1046.3	72.65	4.15
12/8/2016	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05

**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/18/2017	LW-25	1118.95	67.9	1051.05	1046.3	72.65	4.75
2/4/2017	LW-25	1118.95	68.65	1050.3	1046.3	72.65	4
3/9/2017	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
4/17/2017	LW-25	1118.95	68	1050.95	1046.3	72.65	4.65
5/17/2017	LW-25	1118.95	68.5	1050.45	1046.3	72.65	4.15
6/6/2017	LW-25	1118.95	68.8	1050.15	1046.3	72.65	3.85
7/12/2017	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
8/10/2017	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
9/14/2017	LW-25	1118.95	69.25	1049.7	1046.3	72.65	3.4
10/4/2017	LW-25	1118.95	68.8	1050.15	1046.3	72.65	3.85
11/1/2017	LW-25	1118.95	57.9	1061.05	1046.3	72.65	14.75
12/13/2017	LW-25	1118.95	53.85	1065.1	1046.3	72.65	18.8
1/12/2018	LW-25	1118.95	68.8	1050.15	1046.3	72.65	3.85
2/8/2018	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
3/13/2018	LW-25	1118.95	68.7	1050.25	1046.3	72.65	3.95
4/17/2018	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
5/18/2018	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
6/6/2018	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
7/11/2018	LW-25	1118.95	68.85	1050.1	1046.3	72.65	3.8
8/7/2018	LW-25	1118.95	68.65	1050.3	1046.3	72.65	4
9/10/2018	LW-25	1118.95	69.51	1049.44	1046.3	72.65	3.14
10/11/2018	LW-25	1118.95	68.62	1050.33	1046.3	72.65	4.03
11/14/2018	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
12/15/2018	LW-25	1118.95	71.25	1047.7	1046.3	72.65	1.4

**Table 17**  
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<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/16/2019	LW-25	1118.95	68.55	1050.4	1046.3	72.65	4.1
2/15/2019	LW-25	1118.95	68.6	1050.35	1046.3	72.65	4.05
3/14/2019	LW-25	1118.95	68.71	1050.24	1046.3	72.65	3.94
4/24/2019	LW-25	1118.95	68.7	1050.25	1046.3	72.65	3.95
5/15/2019	LW-25	1118.95	68.55	1050.4	1046.3	72.65	4.1
6/5/2019	LW-25	1118.95	56.82	1062.13	1046.3	72.65	15.83
7/17/2019	LW-25	1118.95	56.28	1062.67	1046.3	72.65	16.37
8/19/2019	LW-25	1118.95	54.4	1064.55	1046.3	72.65	18.25
9/16/2019	LW-25	1115.95	63.5	1052.45	1046.3	69.65	6.15
10/8/2019	LW-25	1115.95	66.3	1049.65	1046.3	69.65	3.35
11/20/2019	LW-25	1115.95	65	1050.95	1046.3	69.65	4.65
12/2/2019	LW-25	1115.95	65.05	1050.9	1046.3	69.65	4.6
1/15/2020	LW-25	1115.95	65.4	1050.55	1046.3	69.65	4.25
2/10/2020	LW-25	1115.95	65.42	1050.53	1046.3	69.65	4.23
3/24/2020	LW-25	1115.95	65.22	1050.73	1046.3	69.65	4.43
4/14/2020	LW-25	1115.95	65.22	1050.73	1046.3	69.65	4.43
5/12/2020	LW-25	1115.95	64.9	1051.05	1046.3	69.65	4.75
6/3/2020	LW-25	1115.95	64.65	1051.3	1046.3	69.65	5
7/20/2020	LW-25	1115.95	65.05	1050.9	1046.3	69.65	4.6
8/17/2020	LW-25	1115.95	55.4	1060.55	1046.3	69.65	14.25
9/2/2020	LW-25	1115.95	53.2	1062.75	1046.3	69.65	16.45
10/7/2020	LW-25	1115.95	52.05	1063.9	1046.3	69.65	17.6
11/27/2020	LW-25	1115.95	51.2	1064.75	1046.3	69.65	18.45
12/28/2020	LW-25	1115.95	65.75	1050.2	1046.3	69.65	3.9
1/22/2021	LW-25	1115.95	65.7	1050.25	1046.3	69.65	3.95
2/18/2021	LW-25	1115.95	65.7	1050.25	1046.3	69.65	3.95
3/8/2021	LW-25	1115.95	65.95	1050	1046.3	69.65	3.7
4/15/2021	LW-25	1115.95	65.7	1050.25	1046.3	69.65	3.95
5/19/2021	LW-25	1115.95	59.22	1056.73	1046.3	69.65	10.43
6/4/2021	LW-25	1115.95	55.05	1060.9	1046.3	69.65	14.6
7/15/2021	LW-25	1115.95	59.3	1056.65	1046.3	69.65	10.35
8/23/2021	LW-25	1115.95	52.7	1063.25	1046.3	69.65	16.95
9/14/2021	LW-25	1115.95	53.78	1062.17	1046.3	69.65	15.87
10/15/2021	LW-25	1115.95	64.9	1051.05	1046.3	69.65	4.75
11/9/2021	LW-25	1115.95	65.05	1050.9	1046.3	69.65	4.6
12/1/2021	LW-25	1115.95	65.15	1050.8	1046.3	69.65	4.5

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Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness	
1/5/2022	LW-25	1115.71	65.38	1050.33	1046.3	69.41	4.03	
2/8/2022	LW-25	1115.71	65.55	1050.16	1046.3	69.41	3.86	
3/28/2022	LW-25	1115.71	65.52	1050.19	1046.3	69.41	3.89	
4/20/2022	LW-25	1115.71	65.05	1050.66	1046.3	69.41	4.36	
5/9/2022	LW-25	1115.71	65.05	1050.66	1046.3	69.41	4.36	
6/20/2022	LW-25	1115.71	65.45	1050.26	1046.3	69.41	3.96	
7/1/2022	LW-25	1115.71	65.5	1050.21	1046.3	69.41	3.91	
8/4/2022	LW-25	1115.71	56.15	1059.56	1046.3	69.41	13.26	
9/13/2022	LW-25	1115.71	52.7	1063.01	1046.3	69.41	16.71	
10/11/2022	LW-25	1115.71	52.43	1063.28	1046.3	69.41	16.98	
11/10/2022	LW-25	1115.71	51.8	1063.91	1046.3	69.41	17.61	
12/1/2022	LW-25	1115.71	51.55	1064.16	1046.3	69.41	17.86	
1/24/2023	LW-25	1115.71	50.9	1064.81	1046.3	69.41	18.51	
2/6/2023	LW-25	1115.71	50.7	1065.01	1046.3	69.41	18.71	
3/23/2023	LW-25	1115.71	50.3	1065.41	1046.3	69.41	19.11	
4/12/2023	LW-25	1115.71	50.2	1065.51	1046.3	69.41	19.21	
5/9/2023	LW-25	1115.71	49.96	1065.75	1046.3	69.41	19.45	
6/7/2023	LW-25	1115.71	49.99	1065.72	1046.3	69.41	19.42	Replaced Pump 6/2023
7/12/2023	LW-25	1115.71	62.2	1053.51	1046.3	69.41	7.21	
8/7/2023	LW-25	1115.71	63.45	1052.26	1046.3	69.41	5.96	
9/5/2023	LW-25	1115.71	64.1	1051.61	1046.3	69.41	5.31	
10/20/2023	LW-25	1115.71	64.4	1051.31	1046.3	69.41	5.01	
11/13/2023	LW-25	1115.71	64.25	1051.46	1046.3	69.41	5.16	
12/14/2023	LW-25	1115.71	64.34	1051.37	1046.3	69.41	5.07	
1/8/2024	LW-25	1115.71	64.3	1051.41	1046.3	69.41	5.11	
2/8/2024	LW-25	1115.71	64.1	1051.61	1046.3	69.41	5.31	
3/6/2024	LW-25	1115.71	64.1	1051.61	1046.3	69.41	5.31	
4/1/2024	LW-25	1115.71	63.85	1051.86	1046.3	69.41	5.56	
5/22/2024	LW-25	1115.71	62.25	1053.46	1046.3	69.41	7.16	
6/3/2024	LW-25	1115.71	62.28	1053.43	1046.3	69.41	7.13	
7/9/2024	LW-25	1115.71	61	1054.71	1046.3	69.41	8.41	
8/6/2024	LW-25	1115.71	60.9	1054.81	1046.3	69.41	8.51	
9/18/2024	LW-25	1115.71	60.2	1055.51	1046.3	69.41	9.21	
10/25/2024	LW-25	1115.71	60.65	1055.06	1046.3	69.41	8.76	
11/20/2024	LW-25	1115.71	64.18	1051.53	1046.3	69.41	5.23	
12/9/2024	LW-25	1115.71	60.7	1055.01	1046.3	69.41	8.71	

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**IDNR Permit No. 61-SDP-01-78P**

<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
11/10/2015	LW-26	1108.21	51.6	1056.61	1042.3	65.91	14.31
12/10/2015	LW-26	1108.21	50.2	1058.01	1042.3	65.91	15.71
1/19/2016	LW-26	1108.21	54.4	1053.81	1042.3	65.91	11.51
2/11/2016	LW-26	1108.21	54.4	1053.81	1042.3	65.91	11.51
3/3/2016	LW-26	1108.21	54.17	1054.04	1042.3	65.91	11.74
4/18/2016	LW-26	1108.21	53.5	1054.71	1042.3	65.91	12.41
5/10/2016	LW-26	1108.21	53.3	1054.91	1042.3	65.91	12.61
6/21/2016	LW-26	1108.21	54	1054.21	1042.3	65.91	11.91
7/6/2016	LW-26	1108.21	54.1	1054.11	1042.3	65.91	11.81
8/15/2016	LW-26	1108.21	54	1054.21	1042.3	65.91	11.91
9/21/2016	LW-26	1108.21	54.2	1054.01	1042.3	65.91	11.71
10/7/2016	LW-26	1108.21	54.05	1054.16	1042.3	65.91	11.86
11/9/2016	LW-26	1108.21	54.8	1053.41	1042.3	65.91	11.11
12/8/2016	LW-26	1108.21	54.8	1053.41	1042.3	65.91	11.11



**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
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**SCILA Sanitary Landfill**  
**IDNR Permit No. 61-SDP-01-78P**

<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/18/2017	LW-26	1108.21	54.5	1053.71	1042.3	65.91	11.41
2/4/2017	LW-26	1108.21	54.6	1053.61	1042.3	65.91	11.31
3/9/2017	LW-26	1108.21	54.55	1053.66	1042.3	65.91	11.36
4/17/2017	LW-26	1108.21	53.9	1054.31	1042.3	65.91	12.01
5/17/2017	LW-26	1108.21	54.6	1053.61	1042.3	65.91	11.31
6/6/2017	LW-26	1108.21	54.5	1053.71	1042.3	65.91	11.41
7/12/2017	LW-26	1108.21	54.72	1053.49	1042.3	65.91	11.19
8/10/2017	LW-26	1108.21	54.55	1053.66	1042.3	65.91	11.36
9/14/2017	LW-26	1108.21	54.65	1053.56	1042.3	65.91	11.26
10/4/2017	LW-26	1108.21	54.5	1053.71	1042.3	65.91	11.41
11/1/2017	LW-26	1108.21	54.6	1053.61	1042.3	65.91	11.31
12/13/2017	LW-26	1108.21	54.3	1053.91	1042.3	65.91	11.61
1/12/2018	LW-26	1108.21	54.15	1054.06	1042.3	65.91	11.76
2/8/2018	LW-26	1108.21	53.38	1054.83	1042.3	65.91	12.53
3/13/2018	LW-26	1108.21	54.3	1053.91	1042.3	65.91	11.61
4/17/2018	LW-26	1108.21	54.47	1053.74	1042.3	65.91	11.44
5/18/2018	LW-26	1108.21	54.65	1053.56	1042.3	65.91	11.26
6/6/2018	LW-26	1108.21	54.2	1054.01	1042.3	65.91	11.71
7/11/2018	LW-26	1108.21	54.66	1053.55	1042.3	65.91	11.25
8/7/2018	LW-26	1108.21	53.95	1054.26	1042.3	65.91	11.96
9/10/2018	LW-26	1108.21	54.64	1053.57	1042.3	65.91	11.27
10/11/2018	LW-26	1108.21	54.9	1053.31	1042.3	65.91	11.01
11/14/2018	LW-26	1108.21	54.66	1053.55	1042.3	65.91	11.25
12/15/2018	LW-26	1108.21	54.46	1053.75	1042.3	65.91	11.45

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**IDNR Permit No. 61-SDP-01-78P**

<b>Date</b>	<b>Leachate Well</b>	<b>Top PVC Elevation</b>	<b>Depth to Liquid</b>	<b>Elevation Liquid</b>	<b>Elevation SLF Base</b>	<b>Depth Well</b>	<b>Leachate Thickness</b>
1/16/2019	LW-26	1108.21	57.9	1050.31	1042.3	65.91	8.01
2/15/2019	LW-26	1108.21	57.57	1050.64	1042.3	65.91	8.34
3/14/2019	LW-26	1108.21	56.9	1051.31	1042.3	65.91	9.01
4/24/2019	LW-26	1108.21	56	1052.21	1042.3	65.91	9.91
5/15/2019	LW-26	1108.21	56.2	1052.01	1042.3	65.91	9.71
6/5/2019	LW-26	1108.21	55.35	1052.86	1042.3	65.91	10.56
7/17/2019	LW-26	1108.21	54.65	1053.56	1042.3	65.91	11.26
8/19/2019	LW-26	1108.21	54.8	1053.41	1042.3	65.91	11.11
9/16/2019	LW-26	1108.21	54.51	1053.7	1042.3	65.91	11.4
10/8/2019	LW-26	1108.21	54.75	1053.46	1042.3	65.91	11.16
11/20/2019	LW-26	1108.21	54.7	1053.51	1042.3	65.91	11.21
12/2/2019	LW-26	1108.21	54.7	1053.51	1042.3	65.91	11.21
1/15/2020	LW-26	1108.21	54.8	1053.41	1042.3	65.91	11.11
2/10/2020	LW-26	1108.21	54.8	1053.41	1042.3	65.91	11.11
3/24/2020	LW-26	1108.21	54.9	1053.31	1042.3	65.91	11.01
4/14/2020	LW-26	1108.21	54.7	1053.51	1042.3	65.91	11.21
5/12/2020	LW-26	1108.21	54.8	1053.41	1042.3	65.91	11.11
6/3/2020	LW-26	1108.21	53.9	1054.31	1042.3	65.91	12.01
7/20/2020	LW-26	1108.21	54.71	1053.5	1042.3	65.91	11.2
8/17/2020	LW-26	1108.21	54.55	1053.66	1042.3	65.91	11.36
9/2/2020	LW-26	1108.21	54.55	1053.66	1042.3	65.91	11.36
10/7/2020	LW-26	1108.21	53.95	1054.26	1042.3	65.91	11.96
11/27/2020	LW-26	1108.21	53.9	1054.31	1042.3	65.91	12.01
12/28/2020	LW-26	1108.21	54.45	1053.76	1042.3	65.91	11.46
1/22/2021	LW-26	1108.21	54.5	1053.71	1042.3	65.91	11.41
2/18/2021	LW-26	1108.21	54.47	1053.74	1042.3	65.91	11.44
3/8/2021	LW-26	1108.21	54.3	1053.91	1042.3	65.91	11.61
4/15/2021	LW-26	1108.21	52.85	1055.36	1042.3	65.91	13.06
5/19/2021	LW-26	1108.21	52.06	1056.15	1042.3	65.91	13.85
6/4/2021	LW-26	1108.21	54.3	1053.91	1042.3	65.91	11.61
7/15/2021	LW-26	1108.21	50.65	1057.56	1042.3	65.91	15.26
8/23/2021	LW-26	1108.21	52.65	1055.56	1042.3	65.91	13.26
9/14/2021	LW-26	1108.21	53.01	1055.2	1042.3	65.91	12.9
10/15/2021	LW-26	1108.21	52.6	1055.61	1042.3	65.91	13.31
11/9/2021	LW-26	1108.21	52	1056.21	1042.3	65.91	13.91
12/1/2021	LW-26	1108.21	50.75	1057.46	1042.3	65.91	15.16

**Table 17**  
**Leachate Elevation and Thickness Data - Closed Landfilling Areas**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**IDNR Permit No. 61-SDP-01-78P**

Date	Leachate Well	Top PVC Elevation	Depth to Liquid	Elevation Liquid	Elevation SLF Base	Depth Well	Leachate Thickness	
1/5/2022	LW-26	1107.98	54.4	1053.58	1042.3	65.68	11.28	
2/8/2022	LW-26	1107.98	52.33	1055.65	1042.3	65.68	13.35	
3/28/2022	LW-26	1107.98	50.1	1057.88	1042.3	65.68	15.58	
4/20/2022	LW-26	1107.98	53.1	1054.88	1042.3	65.68	12.58	
5/9/2022	LW-26	1107.98	48.5	1059.48	1042.3	65.68	17.18	
6/20/2022	LW-26	1107.98	50.5	1057.48	1042.3	65.68	15.18	
7/1/2022	LW-26	1107.98	51.27	1056.71	1042.3	65.68	14.41	
8/4/2022	LW-26	1107.98	52.05	1055.93	1042.3	65.68	13.63	
9/13/2022	LW-26	1107.98	53.53	1054.45	1042.3	65.68	12.15	
10/11/2022	LW-26	1107.98	53.87	1054.11	1042.3	65.68	11.81	
11/10/2022	LW-26	1107.98	53.73	1054.25	1042.3	65.68	11.95	
12/1/2022	LW-26	1107.98	52.41	1055.57	1042.3	65.68	13.27	
1/24/2023	LW-26	1107.98	49.57	1058.41	1042.3	65.68	16.11	
2/6/2023	LW-26	1107.98	47.45	1060.53	1042.3	65.68	18.23	
3/23/2023	LW-26	1107.98	48	1059.98	1042.3	65.68	17.68	
4/12/2023	LW-26	1107.98	49.46	1058.52	1042.3	65.68	16.22	
5/9/2023	LW-26	1107.98	49.95	1058.03	1042.3	65.68	15.73	
6/7/2023	LW-26	1107.98	54.95	1053.03	1042.3	65.68	10.73	Replaced Pump 6/2023
7/12/2023	LW-26	1107.98	51.7	1056.28	1042.3	65.68	13.98	bad configuration file
8/7/2023	LW-26	1107.98	52.56	1055.42	1042.3	65.68	13.12	
9/5/2023	LW-26	1107.98	52.44	1055.54	1042.3	65.68	13.24	
10/20/2023	LW-26	1107.98	51.45	1056.53	1042.3	65.68	14.23	
11/13/2023	LW-26	1107.98	51.55	1056.43	1042.3	65.68	14.13	
12/14/2023	LW-26	1107.98	51.95	1056.03	1042.3	65.68	13.73	New Configuration file
1/8/2024	LW-26	1107.98	54.48	1053.5	1042.3	65.68	11.2	installed 12/14/23
2/8/2024	LW-26	1107.98	57.65	1050.33	1042.3	65.68	8.03	
3/6/2024	LW-26	1107.98	57.55	1050.43	1042.3	65.68	8.13	
4/1/2024	LW-26	1107.98	57.4	1050.58	1042.3	65.68	8.28	
5/22/2024	LW-26	1107.98	54.65	1053.33	1042.3	65.68	11.03	
6/3/2024	LW-26	1107.98	57.55	1050.43	1042.3	65.68	8.13	
7/9/2024	LW-26	1107.98	57.26	1050.72	1042.3	65.68	8.42	
8/6/2024	LW-26	1107.98	57.49	1050.49	1042.3	65.68	8.19	
9/18/2024	LW-26	1107.98	55.92	1052.06	1042.3	65.68	9.76	
10/25/2024	LW-26	1107.98	55.9	1052.08	1042.3	65.68	9.78	
11/20/2024	LW-26	1107.98	57.34	1050.64	1042.3	65.68	8.34	
12/9/2024	LW-26	1107.98	57.33	1050.65	1042.3	65.68	8.35	

Table 18 – Gas Monitoring Summary

**Table 18**  
**Gas Monitoring**  
**Annual Water Quality Report**  
**SCILA Sanitary Landfill**  
**Permit No. 61-SDP-01-78P**

**2024**

<b>Monitoring Point</b>	<b>3/6/2024</b>	<b>6/3/2024</b>	<b>9/18/2024</b>	<b>12/9/2024</b>
	<b>% LEL</b>	<b>% LEL</b>	<b>% LEL</b>	<b>% LEL</b>
GP-1	NR	NR	NR	NR
GP-2	0	0	0	0
GP-3	0	0	0	0
GP-4	0	0	0	0
GP-5	0	0	0	0
GP-6	0	0	0	0
GP-7	0	0	0	0
GP-8	0	0	0	0
Office (Temp. Trailer)	0	0	0	0
Leachate Building	0	0	0	0
GU #1 (Lagoon 1)	0	0	0	0
GU-#2 Lagoon 2)	0	0	0	0
GU-A	0	0	0	0
GU-B	0	0	0	0
Office (2520 Hwy 92)	0	locked	0	0
Shop (2520 Hwy 92)	0	0	0	0
<b>Remedial Performance</b>	<b>3/6/2024</b>	<b>6/3/2024</b>	<b>9/18/2024</b>	<b>12/9/2024</b>
<b>Monitoring Point</b>	<b>% LEL</b>	<b>% LEL</b>	<b>% LEL</b>	<b>% LEL</b>
TILE 1 - Cleanout South End	2.6	0	2.4	0
TILE 2 - Cleanout East End	31.0	0	0	0
TILE 1 - Discharge at Tile 1	6.6	0	50.0	0
TILE 2 - Discharge at Tile 2	0	0	0	0
<b>Corrective Action Plan</b>	<b>3/6/2024</b>	<b>6/3/2024</b>	<b>9/18/2024</b>	<b>12/9/2024</b>
	<b>% LEL</b>	<b>% LEL</b>	<b>% LEL</b>	<b>% LEL</b>
Vent 1	4.7	0	0	0
Vent 2	88.7	O.L.	O.L.	67.7
Vent 3	50.0	5.6	0	0
Vent 4	64.5	O.L.	55.5	82.1
Vent 5	13.6	O.L.	68.9	57.9
Vent 6	O.L.	O.L.	O.L.	84.3

destroyed 3/2022

O.L. = Over the Limit of the meter (>100 % LEL or >5% methane)

DNE = Did not exist

## Appendix A

### Listing of Existing Site Monitoring Wells

Point	Status	Groundwater System	System #	Condition
GU-1	HMSP	Till(fill)/bedrock	#1	Dry
GU-2	HMSP	Till(fill)/bedrock	#1	
GU-A	HMSP	Till(fill)/bedrock	#1	
GU-B	HMSP	Till(fill)/bedrock	#1	
MW-1R	Water level	Till(fill)/bedrock	#1	Dry
MW-4B	Water level	Middle Creek	#2	
MW-6A	HMSP	Bethany Falls	#1	
MW-6B	Water level	Bethany Falls	#1	
MW-6C	Water level	Middle Creek	#2	Dry
MW-7A	Water level	Bethany Falls	#1	Dry
MW-7B	HMSP	Deep shale	#4	
MW-7C	Water level	Middle Creek	#2	Dry
MW-8A	Water level	Till(fill)/bedrock	#1	Dry
MW-8B	HMSP	Till(fill)/bedrock	#1	
MW-9AR	HMSP	Till(fill)/bedrock	#1	
MW-11A	Water level	Middle Creek	#2	Dry
MW-11B	Water level	Hertha	#3	Dry
MW-11C	HMSP	Exline	#4	
MW-13	Water level	Hertha	#3	
MW-14A	Water level	Till(fill)/bedrock	#1	Dry
MW-14B	Water level	Middle Creek	#2	
MW-14C	Water level	Hertha	#3	
MW-14D	HMSP	Exline	#4	
MW-15R	HMSP	Till(fill)/bedrock	#1	
MW-17	Water level	Exline	#4	
MW-17R	HMSP	Exline	#4	
MW-18	HMSP	Till(fill)/bedrock	#1	
MW-19	HMSP	Hertha	#3	
MW-21	HMSP	Till(fill)/bedrock	#1	
MW-22B	Water level	Hertha	#3	
MW-23	Water level	Bethany Falls	#1	Dry
MW-23B	Water level	Hertha	#3	
MW-24B	Water level	Middle Creek	#2	
MW-24C	Water level	Hertha	#3	
MW-24D	Water level	Exline	#4	
MW-27	Water level	Till(fill)/bedrock	#1	Dry
MW-28	HMSP	Till(fill)/Exline bedrock	#4	
MW-30	Water level	Till(fill)/bedrock	#1	Dry
MW-31	HMSP	Till(fill)/bedrock	#1	
MW-32	HMSP	Till(fill)/bedrock	#1	
MW-33	Water level	Hertha	#3	
SW-1	HMSP	Surface water	Surface water	
SW-2B	HMSP	Surface water	Surface water	
SW-102	PECS	PECS	PECS	
Tile 1	HMSP	Collector Trench Outflow	#1	
Tile 2	HMSP	Collector Trench Outflow	#1	
MW-34A	Water level	Till(fill)/bedrock	#1	
MW-34B	Water level	Middle Creek	#2	
MW-34C	Water level	Hertha	#3	
MW-35B	Water level	Middle Creek	#2	
MW-36A	Water level	Till(fill)/bedrock	#1	
MW-36B	Water level	Middle Creek	#2	
MW-37A	Water level	Till(fill)/bedrock	#1	
MW-37B	Water level	Middle Creek	#2	
MW-37C	Water level	Hertha	#3	
MW-37D	HMSP	Exline	#4	Dry
MW-38A	Water level	Till(fill)/bedrock	#1	
MW-38B	Water level	Middle Creek	#2	
MW-39A	Water level	Till(fill)/bedrock	#1	
MW-39B	Water level	Middle Creek	#2	
MW-39C	Water level	Hertha	#3	
MW-39D	HMSP	Exline	#4	
MW-40A	Water level	Till(fill)/bedrock	#1	
MW-40B	Water level	Middle Creek	#2	

MW-41A	Water level	Till(fill)/bedrock	#1	Dry
MW-41C	Water level	Hertha	#3	
MW-41D	HMSP	Exline	#4	
MW-42C	Water level	Hertha	#3	
MW-42D	HMSP	Exline	#4	
MW-43	Water level	Deep shale	#4	Dry
MW-44	HMSP	Till(fill)/bedrock	#1	
MW-45A	HMSP	Ladore Shale	#1	
MW-45D	HMSP	Exline	#4	



## Appendix B

### Field Sampling Forms





**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

**IDNR Form 542-1322**

**Monitoring Well:** MW-1R

**Primary Sampling Method:**  
**Secondary Sampling Method:**

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

**GENERAL INFORMATION**

TOC	1044.51
Well Depth	39.50
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	1044.51
Well Depth	39.50
Top Screen	1011.04
Bottom Screen	1005.01
Bottom Well	1005.01
Sampler Length (ft)	
Sampler Volume (mL)	0.00
Feet cordage	0.00
Top sample	1044.51
Bottom sample	1044.51
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
3/6/2024		39.75	1004.76	Dry

**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	0	
Appendix I	Metals	150	0	
Appendix I	VOC	240	0	
Full Appendix II	10 more containers	5620	0	
TSS	TSS	1000	0	
Supplemental			0	
Supplemental			0	
Total		0	0	

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

TOC	1044.51	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	39.50	Before purging	9/2/2020		39.75	1004.76		0.0	
		After purging				1044.51			
		Top of Screen 2014				1011.04			
						-6.28			feet above (+) or below (-) top screen
		Bottom of Well 2014				1005.01			
		Bottom of Well	9/2/2020		39.50	1005.01			
						0.00			feet sedimentation
		Before Sampling				1044.51			
		Recovery				1044.51			
		Recovery				1044.51			
		Recovery				1044.51			
		Recovery				1044.51			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-4A**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1082.35
Well Depth	29.70
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1082.35
Well Depth	29.70
Top Screen	1057.65
Bottom Screen	1052.65
Bottom Well	1052.65
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1082.35
Bottom sample	1078.35
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
3/6/2024			1082.35	Broken

**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		
Appendix I	Metals	150		
Appendix I	VOC	240		
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		0	0	

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

TOC	1082.35	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.70	Before purging				1082.35		0.0	No
		After purging				1082.35			
		Top of Screen 1985				1057.65			
						24.70			feet above (+) or below (-) top screen
		Bottom of Well 1985				1052.65			
		Bottom of Well			29.60	1052.75			
						0.10			feet sedimentation
		Before Sampling				1082.35			
		Recovery				1082.35			
		Recovery				1082.35			
		Recovery				1082.35			
		Recovery				1082.35			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-6A

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1055.48
Well Depth	15.43
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	1055.48
Well Depth	15.43
Top Screen	1043.05
Bottom Screen	1040.05
Bottom Well	1040.05
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1055.48
Bottom sample	1051.48
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
3/6/2024		13.95	1041.53	dry

**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	150	150	0.00
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1055.48	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	15.43	Before purging	3/6/2024	0:00	13.95	1041.53	0	0.0	dry
Capped	YES	After purging				1055.48			
Standing Water	NO	Top of Screen 1990				1043.05			
Litter	NO					-1.52			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1040.05			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024			1055.48			
						15.43			feet sedimentation
		Before Sampling				1055.48			App I
		Before Sampling				1082.35			App II
		Recovery				1082.35			
		Recovery				1082.35			
		Recovery				1055.48			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-8B

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1049.46
Well Depth	28.65
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	1049.46
Well Depth	28.65
Top Screen	1029.86
Bottom Screen	1020.81
Bottom Well	1020.81
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	25.00
Top sample	1024.46
Bottom sample	1020.46
Turbidity(NTU)	2.81

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	14:40	24.94	1024.52	

**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	2.81
Appendix I	Metals	150	150	2.81
Appendix I	VOC	240	240	2.81
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1049.46	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	28.65	Before purging	3/6/2024	14:40	24.94	1024.52	2	3.3	Yes
Capped	YES	After purging				1049.46			
Standing Water	NO	Top of Screen 1990				1029.86			
Litter	NO					-5.34			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1020.81			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		28.70	1020.76			
						-0.05			feet sedimentation
		Before Sampling				1049.46			
		Recovery	3/6/2024	14:54	28.10	1021.36			
		Recovery	3/6/2024	17:33	27.68	1021.78			
		Recovery				1049.46			
		Recovery				1049.46			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-9AR

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1057.54
Well Depth	28.95
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	1057.54
Well Depth	28.95
Top Screen	1038.59
Bottom Screen	1028.59
Bottom Well	1028.59
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	26.00
Top sample	1031.54
Bottom sample	1027.54
Turbidity(NTU)	12.10

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	15:47	25.7	1031.84	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	12.10
Appendix I	Metals	150	150	12.10
Appendix I	VOC	240	240	12.10
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1057.54	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	28.95	Before purging	3/6/2024	15:47	25.70	1031.84	2	3.8	yes
Capped	YES	After purging				1057.54			
Standing Water	NO	Top of Screen 1990				1038.59			
Litter	NO					-6.75			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1028.59			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		28.95	1028.59			
						0.00			feet sedimentation
		Before Sampling				1057.54			
		Recovery	3/6/2024	16:05	27.00	1030.54			
		Recovery	3/6/2024	17:28	26.58	1030.96			
		Recovery				1057.54			
		Recovery				1057.54			



**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-11C

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1054.11
Well Depth	51.55
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	1054.11
Well Depth	51.55
Top Screen	1003.56
Bottom Screen	1002.56
Bottom Well	1002.56
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	46.00
Top sample	1008.11
Bottom sample	1004.11
Turbidity(NTU)	2.94

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	9:28	45.55	1008.56	

**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	2.94
Appendix I	Metals	150	150	2.94
Appendix I	VOC	240	240	2.94
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1054.11	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	51.55	Before purging	3/6/2024	9:28	45.55	1008.56	2	2.0	no
Capped	YES	After purging				1054.11			
Standing Water	NO	Top of Screen 1990				1003.56			
Litter	NO					5.00			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1002.56			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		51.55	1002.56			
						0.00			feet sedimentation
		Before Sampling				1054.11			
		Recovery	3/6/2024	9:39	47.40	1006.71			
		Recovery	3/6/2024	13:56	45.45	1008.66			
		Recovery				1054.11			
		Recovery				1054.11			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-14D**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1057.28
Well Depth	65.00
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	1057.28
Well Depth	65.00
Top Screen	997.28
Bottom Screen	992.28
Bottom Well	992.28
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	59.00
Top sample	998.28
Bottom sample	994.28
Turbidity(NTU)	3.94

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	13:35	52.02	1005.26	

**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	3.94
Appendix I	Metals	150	150	3.94
Appendix I	VOC	240	240	3.94
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1057.28	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	65.00	Before purging	3/6/2024	13:35	52.02	1005.26	3	1.4	yes
Capped	YES	After purging				1057.28			
Standing Water	NO	Top of Screen 1990				997.28			
Litter	NO					7.98			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				992.28			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		65.00	992.28			
						0.00			feet sedimentation
		Before Sampling				1057.28			App I Metals
		Recovery	3/6/2024	13:52	63.90	993.38			Supplemental
		Recovery	3/6/2024	17:26	63.25	994.03			
		Recovery				1057.28			
		Recovery				1057.28			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-15R

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1051.77
Well Depth	21.60
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	1051.77
Well Depth	21.60
Top Screen	1035.67
Bottom Screen	1030.67
Bottom Well	1030.17
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	15.50
Top sample	1036.27
Bottom sample	1032.27
Turbidity(NTU)	6.19

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	15:12	14.83	1036.94	

**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	6.19
Appendix I	Metals	150	150	6.19
Appendix I	VOC	240	240	6.19
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1051.77	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	21.60	Before purging	3/6/2024	15:12	14.83	1036.94	3	2.7	no
Capped	YES	After purging				1051.77			
Standing Water	NO	Top of Screen 1990				1035.67			
Litter	NO					1.27			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1030.17			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		21.60	1030.17			
						0.00			feet sedimentation
		Before Sampling				1051.77			
		Recovery	3/6/2024	15:25	19.80	1031.97			
		Recovery	3/6/2024	17:35	14.90	1036.87			
		Recovery				1051.77			
		Recovery				1051.77			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-17R

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1058.27
Well Depth	52.30
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	1058.27
Well Depth	52.30
Top Screen	1008.97
Bottom Screen	1005.97
Bottom Well	1005.97
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	48.00
Top sample	1010.27
Bottom sample	1006.27
Turbidity(NTU)	2.91

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	8:40	48.45	1009.82	

**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	2.91
Appendix I	Metals	150	150	2.91
Appendix I	VOC	240	240	2.91
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1058.27	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	52.30	Before purging	3/6/2024	8:40	48.45	1009.82	2	3.2	yes
Capped	YES	After purging				1058.27			
Standing Water	NO	Top of Screen 1990				1008.97			
Litter	NO					0.85			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1005.97			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		52.30	1005.97			
						0.00			feet sedimentation
		Before Sampling				1058.27			
		Recovery	3/6/2024	8:51	50.20	1008.07			
		Recovery	3/6/2024	13:49	48.32	1009.95			
		Recovery				1058.27			
		Recovery				1058.27			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-18**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1062.45
Well Depth	23.83
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	1062.45
Well Depth	23.83
Top Screen	1048.62
Bottom Screen	1038.62
Bottom Well	1038.62
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1062.45
Bottom sample	1058.45
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
3/6/2024		22.16	1040.29	too dry

**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	150	150	0.00
Appendix I	VOC	240	0	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		160	0	

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

TOC	1062.45	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	23.83	Before purging	3/6/2024	0:00	22.16	1040.29	0	0.0	yes
Capped	YES	After purging				1062.45			
Standing Water	NO	Top of Screen 1990				1048.62			
Litter	NO					-8.33			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1038.62			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		23.60	1038.85			
						0.23			feet sedimentation
		Before Sampling				1062.45			
		Before Sampling				1062.45			
		Recovery				1062.45			
		Recovery				1062.45			
		Recovery				1062.45			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-21**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	993.9
Well Depth	42.10
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	993.9
Well Depth	42.10
Top Screen	961.80
Bottom Screen	951.80
Bottom Well	951.80
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	36.50
Top sample	957.40
Bottom sample	953.40
Turbidity(NTU)	5.03

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	8:13	34.92	958.98	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	5.03
Appendix I	Metals	150	150	5.03
Appendix I	VOC	240	240	5.03
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	993.9	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	42.10	Before purging	3/6/2024	8:13	34.92	958.98	2.5	2.1	no
Capped	YES	After purging				993.90			
Standing Water	NO	Top of Screen 1990				961.80			
Litter	NO					-2.82			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				951.80			
Equipment	Waterra & Bailer	Bottom of Well	3/6/2024		41.70	952.20			
						0.40			feet sedimentation
		Before Sampling				993.90			
		Recovery	3/6/2024	8:24	39.25	954.65			
		Recovery	3/6/2024	13:40	34.85	959.05			
		Recovery				993.90			
		Recovery				993.90			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-28**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1002.67
Well Depth	14.80
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1002.67
Well Depth	14.80
Top Screen	992.87
Bottom Screen	987.87
Bottom Well	987.87
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	10.00
Top sample	992.67
Bottom sample	988.67
Turbidity(NTU)	258.20

red

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	14:33	7.68	994.99	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	258.2
Appendix I	Metals	150	150	258.2
Appendix I	VOC	240	240	258.20
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1002.67	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	14.80	Before purging	3/6/2024	14:33	7.68	994.99	3	2.6	no
Capped	YES	After purging				1002.67			
Standing Water	NO	Top of Screen 1990				992.87			
Litter	NO					2.12			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				987.87			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		15.00	987.67			
						-0.20			feet sedimentation
		Before Sampling				1002.67			
		Recovery	3/6/2024	16:48	11.25	991.42			
		Recovery	3/6/2024	17:14	8.20	994.47			
		Recovery				1002.67			
		Recovery				1002.67			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-31**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1054.34
Well Depth	25.00
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	1054.34
Well Depth	25.00
Top Screen	1034.34
Bottom Screen	1029.34
Bottom Well	1029.34
Sampler Length (ft)	
Sampler Volume (mL)	0.00
Feet cordage	
Top sample	1054.34
Bottom sample	1054.34
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
3/6/2024		23.35	1030.99	too dry

**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	150	150	0.00
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1054.34	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	25.00	Before purging	3/6/2024	0:00	23.35	1030.99	0	0.0	yes
Capped	YES	After purging				1054.34			
Standing Water	NO	Top of Screen 1990				1034.34			
Litter	NO					-3.35			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1029.34			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		25.00	1029.34			
						0.00			feet sedimentation
		Before Sampling				1054.34			
		Before Sampling				1054.34			
		Recovery				1054.34			
		Recovery				1054.34			
		Recovery				1054.34			



**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-32**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1056.82
Well Depth	27.80
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1056.82
Well Depth	27.80
Top Screen	1034.02
Bottom Screen	1029.02
Bottom Well	1029.02
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	22.00
Top sample	1034.82
Bottom sample	1030.82
Turbidity(NTU)	1.96

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	15:32	21.98	1031.04	

**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	1.96
Appendix I	Metals	150	150	1.96
Appendix I	VOC	240	240	1.96
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1056.82	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	27.80	Before purging	3/6/2024	15:32	21.98	1034.84	3	3.2	No
Capped	YES	After purging				1056.82			
Standing Water	NO	Top of Screen 1990				1034.02			
Litter	NO					0.82			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1029.02			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		27.80	1029.02			
						0.00			feet sedimentation
		Before Sampling				1056.82			
		Recovery	3/6/2024	15:41	24.50	1032.32			
		Recovery	3/6/2024	17:30	24.02	1032.80			
		Recovery				1056.82			
		Recovery				1056.82			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-37D**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1073.31
Well Depth	80.10
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1073.31
Well Depth	80.10
Top Screen	994.71
Bottom Screen	993.21
Bottom Well	991.66
Sampler Length (ft)	1.00
Sampler Volume (mL)	110.00
Feet cordage	
Top sample	1073.31
Bottom sample	1072.31
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
3/6/2024		79.9	993.41	<b>DRY</b>

**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
Appendix I	Metals	150	150	0
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1073.31	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	80.10	Before purging	3/6/2024	0:00	79.90	993.41		0.0	
Capped	YES	After purging				1073.31			
Standing Water	NO	Top of Screen 1990				994.71			
Litter	NO					-1.30			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				993.21			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		79.90	993.41			
						0.20			feet sedimentation
		Before Sampling				1073.31			
		Before Sampling				1073.31			
		Recovery				1073.31			
		Recovery				1073.31			
		Recovery				1073.31			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-38A

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1075.92
Well Depth	27.25
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	1075.92
Well Depth	27.25
Top Screen	1053.67
Bottom Screen	1048.67
Bottom Well	1048.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1075.92
Bottom sample	1071.92
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	12:20	26.6	1049.32	too dry no sample

**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
Appendix I	Metals	150	150	0
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1075.92	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	27.25	Before purging	3/6/2024	12:20	26.60	1049.32	0	0.0	No
Capped	YES	After purging				1075.92			
Standing Water	NO	Top of Screen 2019				1053.67			
Litter	NO					-4.35			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2019				1048.67			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		27.65	1048.27			
						-0.40			feet sedimentation
		Before Sampling				1075.92			
		Before Sampling				1075.92			
		Recovery				1075.92			
		Recovery				1075.92			
		Recovery				1075.92			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-39D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1076.19
Well Depth	90.50
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	1076.19
Well Depth	90.50
Top Screen	988.69
Bottom Screen	985.69
Bottom Well	984.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	84.00
Top sample	992.19
Bottom sample	988.19
Turbidity(NTU)	1.69

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	11:47	59.94	1016.25	

**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	1.69
Appendix I	Metals	150	150	1.69
Appendix I	VOC	240	240	1.69
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1076.19	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	90.50	Before purging	3/6/2024	11:47	59.94	1016.25	5	1.0	No
Capped	YES	After purging				1076.19			
Standing Water	NO	Top of Screen 1990				988.69			
Litter	NO					27.56			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				985.69			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		90.20	985.99			
						0.30			feet sedimentation
		Before Sampling				1076.19			
		Recovery	3/6/2024	11:59	85.65	990.54			
		Recovery	3/6/2024	14:28	85.25	990.94			
		Recovery				1076.19			
		Recovery				1076.19			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-41D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1039.09
Well Depth	53.20
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	1039.09
Well Depth	53.20
Top Screen	988.89
Bottom Screen	985.89
Bottom Well	984.32
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	48.50
Top sample	990.59
Bottom sample	986.59
Turbidity(NTU)	3.17

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	12:12	48.6	990.49	

**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	3.17
Appendix I	Metals	150	150	3.17
Appendix I	VOC	240	240	3.17
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1039.09	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	53.20	Before purging	3/6/2024	12:12	48.60	990.49	1.5	2.0	yes
Capped	YES	After purging				1039.09			
Standing Water	NO	Top of Screen 1990				988.89			
Litter	NO					1.60			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				985.89			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		53.00	986.09			
						0.20			feet sedimentation
		Before Sampling				1039.09			
		Recovery	3/6/2024	12:20	52.22	986.87			
		Recovery	3/6/2024	14:34	51.15	987.94			
		Recovery				1039.09			
		Recovery				1039.09			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-42D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1035.79
Well Depth	43.43
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	1035.79
Well Depth	43.43
Top Screen	994.36
Bottom Screen	992.36
Bottom Well	992.36
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	38.00
Top sample	997.79
Bottom sample	993.79
Turbidity(NTU)	1.90

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	10:02	37.97	997.82	

**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	1.9
Appendix I	Metals	150	150	1.9
Appendix I	VOC	240	240	1.90
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1035.79	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	43.43	Before purging	3/6/2024	10:02	37.97	997.82	2	2.2	no
Capped	YES	After purging				1035.79			
Standing Water	NO	Top of Screen 1990				994.36			
Litter	NO					3.46			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				992.36			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		43.40	992.39			
						0.03			feet sedimentation
		Before Sampling				1035.79			
		Recovery	3/6/2024	10:08	42.70	993.09			
		Recovery	3/6/2024	14:43	42.66	993.13			
		Recovery				1035.79			
		Recovery				1035.79			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-44**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1051.33
Well Depth	18.62
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	1051.33
Well Depth	18.62
Top Screen	1037.71
Bottom Screen	1032.71
Bottom Well	1032.71
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	13.50
Top sample	1037.83
Bottom sample	1033.83
Turbidity(NTU)	17.82

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	14:11	11.8	1039.53	

**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	17.82
Appendix I	Metals	150	150	17.82
Appendix I	VOC	240	240	17.82
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1051.33	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	18.62	Before purging	3/6/2024	14:11	11.80	1039.53	4	3.6	no
Capped	YES	After purging				1051.33			
Standing Water	NO	Top of Screen 2023				1037.71			
Litter	NO					1.82			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				1032.71			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		18.60	1032.73			
						0.02			feet sedimentation
		Before Sampling				1051.33			
		Recovery	3/6/2024	14:26	11.85	1039.48			
		Recovery		no drawdown		1051.33			
		Recovery				1051.33			
		Recovery				1051.33			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **LW-26**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1108.21
Well Depth	65.00
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	1108.21
Well Depth	65.00
Top Screen	1083.21
Bottom Screen	1043.21
Bottom Well	1042.30
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	57.00
Top sample	1051.21
Bottom sample	1047.21
Turbidity(NTU)	4.20

Date	Time	Water Level	Water Elevation	Notes
4/1/2024	10:50	57.4	1050.81	

**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	4.20
Appendix I	Metals	150	150	4.20
Appendix I	VOC	240	240	4.20
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental	Leachate			
Supplemental				
Total		400	0	

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

TOC	1108.21	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	65.00	Before purging	4/1/2024	10:50	57.40	1050.81		0.0	
Capped	YES	After purging				1108.21			
Standing Water	NO	Top of Screen 1990				1083.21			
Litter	NO					-32.40			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1043.21			
Equipment	Disposable Bailer	Bottom of Well	4/1/2024		59.10	1049.11			
						5.90			feet sedimentation
		Before Sampling				1108.21			
		Before Sampling				1108.21			
		Recovery				1108.21			
		Recovery				1108.21			
		Recovery				1108.21			



**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
3/6/2024		Underdrain	DRY		No	No	No
							Turbidity(NTU)

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
3/6/2024		UG Surface Water	Dry	Dry	No	No	No
							Turbidity(NTU)

**VOC Only**

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
3/6/2024	16:55	SRAMP	trickle	trickle	No	No	No
							Turbidity(NTU)

**VOC Only**

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
3/6/2024	17:01	DG Surface Water	yes	0.5"x4"x1 ft/sec	No	No	No
							Turbidity(NTU)

**VOC Only**

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
3/6/2024	13:13	Ground Tile	yes	250 mL per 35 sec	No	No	No
							Turbidity(NTU)

7.71  
red

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
3/6/2024	13:03	Ground Tile	yes	250 mL per 7 sec	No	No	No
							Turbidity(NTU)

4.02

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: **MW-45A**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1033.1
Well Depth	13.60
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	1033.1
Well Depth	13.60
Top Screen	1022.50
Bottom Screen	1019.50
Bottom Well	1019.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	10.50
Top sample	1022.60
Bottom sample	1018.60
Turbidity(NTU)	4.72

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	10:21	10.45	1022.65	

**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	4.72
Appendix I	Metals	150	150	4.72
Appendix I	VOC	240	240	4.72
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1033.1	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	13.60	Before purging	3/6/2024	10:21	10.45	1022.65	1.3	2.5	no
Capped	YES	After purging				1033.10			
Standing Water	NO	Top of Screen 2023				1022.50			
Litter	NO					0.15			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				1019.50			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		13.60	1019.50			
						0.00			feet sedimentation
		Before Sampling				1033.10			
		Recovery	3/6/2024	10:31	12.84	1020.26			
		Recovery	3/6/2024	14:19	11.66	1021.44			
		Recovery				1033.10			
		Recovery				1033.10			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

IDNR Form 542-1322

Monitoring Well: MW-45D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1033.44
Well Depth	38.45
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	1033.44
Well Depth	38.45
Top Screen	997.49
Bottom Screen	994.99
Bottom Well	994.99
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	33.00
Top sample	1000.44
Bottom sample	996.44
Turbidity(NTU)	2.27

Date	Time	Water Level	Water Elevation	Notes
3/6/2024	10:35	25.94	1007.5	

**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	2.27
Appendix I	Metals	150	150	2.27
Appendix I	VOC	240	240	2.27
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1033.44	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	38.45	Before purging	3/6/2024	10:35	25.94	1007.50	4	2.0	no
Capped	YES	After purging				1033.44			
Standing Water	NO	Top of Screen 2023				997.49			
Litter	NO					10.01			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				994.99			
Equipment	Disposable Bailer	Bottom of Well	3/6/2024		38.45	994.99			
						0.00			feet sedimentation
		Before Sampling				1033.44			
		Recovery	3/6/2024	10:43	37.22	996.22			
		Recovery	3/6/2024	14:19	35.66	997.78			
		Recovery				1033.44			
		Recovery				1033.44			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

3/6/2024

Sampled by: Todd Whipple

Weather conditions: Overcast, slight breeze, 49 degrees

**IDNR Form 542-1324**

	Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
GU-2	3/6/2024	10:58	Underdrain	yes	250 mL/34 sec	No	No	No
								Turbidity(NTU)
								1.89

**IDNR Form 542-1324**

	Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
GU-A	3/6/2024	11:14	Underdrain	yes	250 mL/3 min	No	No	No
								Turbidity(NTU)
								1.71

VOC Only

**IDNR Form 542-1324**

	Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
GU-B	3/6/2024	10:48	Underdrain	yes	250 mL/12 sec	No	No	No
								Turbidity(NTU)
								1.79

d



**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

6/3/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 78 degrees

IDNR Form 542-1322

Monitoring Well: MW-45A

Primary Sampling Method:

No-Purge for Appendix I

Secondary Sampling Method:

Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1033.1
Well Depth	13.60
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	1033.1
Well Depth	13.60
Top Screen	1022.50
Bottom Screen	1019.50
Bottom Well	1019.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	10.00
Top sample	1023.10
Bottom sample	1019.10
Turbidity(NTU)	1.65

Date	Time	Water Level	Water Elevation	Notes
6/3/2024	10:28	10.51	1022.59	

**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	1.65
Appendix I	Metals	150	150	1.65
Appendix I	VOC	240	240	1.65
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1033.1	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	13.60	Before purging	6/3/2024	10:28	10.51	1022.59		0.0	
Capped	YES	After purging				1033.10			
Standing Water	NO	Top of Screen 2023				1022.50			
Litter	NO					0.09			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				1019.50			
Equipment	Disposable Bailer	Bottom of Well	6/3/2024		13.60	1019.50			
						0.00			feet sedimentation
		Before Sampling				1033.10			
		Recovery				1033.10			
		Recovery				1033.10			
		Recovery				1033.10			
		Recovery				1033.10			

IDNR Form 542-1322

Monitoring Well: MW-45D

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

GENERAL INFORMATION

TOC	1033.44
Well Depth	38.45
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	1033.44
Well Depth	38.45
Top Screen	997.49
Bottom Screen	994.99
Bottom Well	994.99
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	32.00
Top sample	1001.44
Bottom sample	997.44
Turbidity(NTU)	2.03

Date	Time	Water Level	Water Elevation	Notes
6/3/2024	10:36	24.3	1009.14	

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		2.03
Appendix I Metals	150	150		2.03
Appendix I VOC	240	240		2.03
Full Appendix II 10 more containers	5620			
TSS	1000			
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1033.44	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	38.45	Before purging	6/3/2024	10:36	24.30	1009.14			no
Capped	YES	After purging				1033.44			
Standing Water	NO	Top of Screen 2023				997.49			
Litter	NO					11.65			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				994.99			
Equipment	Disposable Bailer	Bottom of Well	6/3/2024		38.45	994.99			
						0.00			feet sedimentation
		Before Sampling				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			







**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

**IDNR Form 542-1322**

**Monitoring Well:** MW-1R

**Primary Sampling Method:**  
**Secondary Sampling Method:**

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

**GENERAL INFORMATION**

TOC	1044.51
Well Depth	39.50
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	1044.51
Well Depth	39.50
Top Screen	1011.04
Bottom Screen	1005.01
Bottom Well	1005.01
Sampler Length (ft)	
Sampler Volume (mL)	0.00
Feet cordage	0.00
Top sample	1044.51
Bottom sample	1044.51
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/18/2024		39.75	1004.76	Dry

**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	0	
Appendix I	Metals	150	0	
Appendix I	VOC	240	0	
Full Appendix II	10 more containers	5620	0	
TSS	TSS	1000	0	
Supplemental			0	
Supplemental			0	
Total		0	0	

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

TOC	1044.51	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	39.50	Before purging	9/2/2020		39.75	1004.76		0.0	
		After purging				1044.51			
		Top of Screen 2014				1011.04			
						-6.28			feet above (+) or below (-) top screen
		Bottom of Well 2014				1005.01			
		Bottom of Well	9/2/2020		39.50	1005.01			
						0.00			feet sedimentation
		Before Sampling				1044.51			
		Recovery				1044.51			
		Recovery				1044.51			
		Recovery				1044.51			
		Recovery				1044.51			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-4A**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1082.35
Well Depth	29.70
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1082.35
Well Depth	29.70
Top Screen	1057.65
Bottom Screen	1052.65
Bottom Well	1052.65
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1082.35
Bottom sample	1078.35
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/18/2024			1082.35	Broken

**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		
Appendix I	Metals	150		
Appendix I	VOC	240		
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		0	0	

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

TOC	1082.35	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	29.70	Before purging				1082.35		0.0	No
		After purging				1082.35			
		Top of Screen 1985				1057.65			
						24.70			feet above (+) or below (-) top screen
		Bottom of Well 1985				1052.65			
		Bottom of Well			29.60	1052.75			
						0.10			feet sedimentation
		Before Sampling				1082.35			
		Recovery				1082.35			
		Recovery				1082.35			
		Recovery				1082.35			
		Recovery				1082.35			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-6A**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1055.48
Well Depth	15.43
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	1055.48
Well Depth	15.43
Top Screen	1043.05
Bottom Screen	1040.05
Bottom Well	1040.05
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	10.50
Top sample	1044.98
Bottom sample	1040.98
Turbidity(NTU)	3.06

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	17:06	11.65	1043.83	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	3.06
Appendix I	Metals	150	150	3.06
Appendix I	VOC	240	240	3.06
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1055.48	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	15.43	Before purging	9/18/2024	17:06	11.65	1043.83	0	0.0	
Capped	YES	After purging				1055.48			
Standing Water	NO	Top of Screen 1990				1043.05			
Litter	NO					0.78			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1040.05			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		15.75	1039.73			
						-0.32			feet sedimentation
		Before Sampling				1055.48			App I
		Before Sampling				1082.35			App II
		Recovery				1082.35			
		Recovery				1082.35			
		Recovery				1055.48			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-8B**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1049.46
Well Depth	28.65
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	1049.46
Well Depth	28.65
Top Screen	1029.86
Bottom Screen	1020.81
Bottom Well	1020.81
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	24.50
Top sample	1024.96
Bottom sample	1020.96
Turbidity(NTU)	5.50

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	16:14	24.39	1025.07	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	5.50
Appendix I	Metals	150	150	5.50
Appendix I	VOC	240	240	5.50
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1049.46	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	28.65	Before purging	9/18/2024	16:14	24.39	1025.07		0.0	
Capped	YES	After purging				1049.46			
Standing Water	NO	Top of Screen 1990				1029.86			
Litter	NO					-4.79			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1020.81			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		28.70	1020.76			
						-0.05			feet sedimentation
		Before Sampling				1049.46			
		Recovery				1049.46			
		Recovery				1049.46			
		Recovery				1049.46			
		Recovery				1049.46			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-9AR

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1057.54
Well Depth	28.95
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	1057.54
Well Depth	28.95
Top Screen	1038.59
Bottom Screen	1028.59
Bottom Well	1028.59
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	25.70
Top sample	1031.84
Bottom sample	1027.84
Turbidity(NTU)	2.39

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	13:49	25.64	1031.9	

**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	2.39
Appendix I	Metals	150	150	2.39
Appendix I	VOC	240	240	2.39
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1057.54	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	28.95	Before purging	9/18/2024	13:49	25.64	1031.90		0.0	
Capped	YES	After purging				1057.54			
Standing Water	NO	Top of Screen 1990				1038.59			
Litter	NO					-6.69			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1028.59			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		28.95	1028.59			
						0.00			feet sedimentation
		Before Sampling				1057.54			
		Recovery				1057.54			
		Recovery				1057.54			
		Recovery				1057.54			
		Recovery				1057.54			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-11C

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1054.11
Well Depth	51.55
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	1054.11
Well Depth	51.55
Top Screen	1003.56
Bottom Screen	1002.56
Bottom Well	1002.56
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	45.00
Top sample	1009.11
Bottom sample	1005.11
Turbidity(NTU)	3.24

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	10:04	45.05	1009.06	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	3.24
Appendix I	Metals	150	150	3.24
Appendix I	VOC	240	240	3.24
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1054.11	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	51.55	Before purging	9/18/2024	10:04	45.05	1009.06		0.0	
Capped	YES	After purging				1054.11			
Standing Water	NO	Top of Screen 1990				1003.56			
Litter	NO					5.50			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1002.56			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		51.55	1002.56			
						0.00			feet sedimentation
		Before Sampling				1054.11			
		Recovery				1054.11			
		Recovery				1054.11			
		Recovery				1054.11			
		Recovery				1054.11			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-14D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1057.28
Well Depth	65.00
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	1057.28
Well Depth	65.00
Top Screen	997.28
Bottom Screen	992.28
Bottom Well	992.28
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	59.50
Top sample	997.78
Bottom sample	993.78
Turbidity(NTU)	2.19

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	12:47	59.26	998.02	

**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	2.19
Appendix I	Metals	150	150	2.19
Appendix I	VOC	240	240	2.19
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1057.28	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	65.00	Before purging	9/18/2024	12:47	59.26	998.02		0.0	
Capped	YES	After purging				1057.28			
Standing Water	NO	Top of Screen 1990				997.28			
Litter	NO					0.74			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				992.28			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		65.00	992.28			
						0.00			feet sedimentation
		Before Sampling				1057.28			App I Metals
		Recovery				1057.28			Supplemental
		Recovery				1057.28			
		Recovery				1057.28			
		Recovery				1057.28			



**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-15R

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1051.77
Well Depth	21.60
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	1051.77
Well Depth	21.60
Top Screen	1035.67
Bottom Screen	1030.67
Bottom Well	1030.17
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	16.00
Top sample	1035.77
Bottom sample	1031.77
Turbidity(NTU)	6.97

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	14:26	13.91	1037.86	

**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	6.97
Appendix I	Metals	150	150	6.97
Appendix I	VOC	240	240	6.97
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1051.77	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	21.60	Before purging	9/18/2024	14:26	13.91	1037.86		0.0	
Capped	YES	After purging				1051.77			
Standing Water	NO	Top of Screen 1990				1035.67			
Litter	NO					2.19			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1030.17			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		21.60	1030.17			
						0.00			feet sedimentation
		Before Sampling				1051.77			
		Recovery				1051.77			
		Recovery				1051.77			
		Recovery				1051.77			
		Recovery				1051.77			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-17R

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1058.27
Well Depth	52.30
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	1058.27
Well Depth	52.30
Top Screen	1008.97
Bottom Screen	1005.97
Bottom Well	1005.97
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	48.00
Top sample	1010.27
Bottom sample	1006.27
Turbidity(NTU)	3.67

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	16:41	47.96	1010.31	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	3.67
Appendix I	Metals	150	150	3.67
Appendix I	VOC	240	240	3.67
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1058.27	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	52.30	Before purging	9/18/2024	16:41	47.96	1010.31		0.0	
Capped	YES	After purging				1058.27			
Standing Water	NO	Top of Screen 1990				1008.97			
Litter	NO					1.34			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1005.97			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		52.30	1005.97			
						0.00			feet sedimentation
		Before Sampling				1058.27			
		Recovery				1058.27			
		Recovery				1058.27			
		Recovery				1058.27			
		Recovery				1058.27			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-18**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1062.45
Well Depth	23.83
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	1062.45
Well Depth	23.83
Top Screen	1048.62
Bottom Screen	1038.62
Bottom Well	1038.62
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	22.00
Top sample	1040.45
Bottom sample	1036.45
Turbidity(NTU)	6.15

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	11:55	22.21	1040.24	

**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	6.15
Appendix I	Metals	150	150	6.15
Appendix I	VOC	240	0	6.15
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		160	0	

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

TOC	1062.45	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	23.83	Before purging	9/18/2024	11:55	22.21	1040.24	0	0.0	yes
Capped	YES	After purging				1062.45			
Standing Water	NO	Top of Screen 1990				1048.62			
Litter	NO					-8.38			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1038.62			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		23.60	1038.85			
						0.23			feet sedimentation
		Before Sampling				1062.45			
		Before Sampling				1062.45			
		Recovery				1062.45			
		Recovery				1062.45			
		Recovery				1062.45			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-21**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	993.9
Well Depth	42.10
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	993.9
Well Depth	42.10
Top Screen	961.80
Bottom Screen	951.80
Bottom Well	951.80
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	35.00
Top sample	958.90
Bottom sample	954.90
Turbidity(NTU)	3.11

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	15:53	26.8	967.1	

**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	3.11
Appendix I	Metals	150	150	3.11
Appendix I	VOC	240	240	3.11
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	993.9	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	42.10	Before purging	9/18/2024	15:53	26.80	967.10		0.0	
Capped	YES	After purging				993.90			
Standing Water	NO	Top of Screen 1990				961.80			
Litter	NO					5.30			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				951.80			
Equipment	Waterra & Bailer	Bottom of Well	9/18/2024		41.70	952.20			
						0.40			feet sedimentation
		Before Sampling				993.90			
		Recovery				993.90			
		Recovery				993.90			
		Recovery				993.90			
		Recovery				993.90			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-28**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1002.67
Well Depth	14.80
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1002.67
Well Depth	14.80
Top Screen	992.87
Bottom Screen	987.87
Bottom Well	987.87
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	10.00
Top sample	992.67
Bottom sample	988.67
Turbidity(NTU)	6.43

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	14:48	7.94	994.73	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	6.43
Appendix I	Metals	150	150	6.43
Appendix I	VOC	240	240	6.43
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1002.67	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	14.80	Before purging	9/18/2024	14:48	7.94	994.73		0.0	
Capped	YES	After purging				1002.67			
Standing Water	NO	Top of Screen 1990				992.87			
Litter	NO					1.86			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				987.87			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		15.00	987.67			
						-0.20			feet sedimentation
		Before Sampling				1002.67			
		Recovery				1002.67			
		Recovery				1002.67			
		Recovery				1002.67			
		Recovery				1002.67			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-31

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1054.34
Well Depth	25.00
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	1054.34
Well Depth	25.00
Top Screen	1034.34
Bottom Screen	1029.34
Bottom Well	1029.34
Sampler Length (ft)	
Sampler Volume (mL)	0.00
Feet cordage	
Top sample	1054.34
Bottom sample	1054.34
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	13:17	23.18	1031.16	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	0.00
Appendix I	Metals	150	150	0.00
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1054.34	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	25.00	Before purging	9/18/2024	13:17	23.18	1031.16	0	0.0	yes
Capped	YES	After purging				1054.34			
Standing Water	NO	Top of Screen 1990				1034.34			
Litter	NO					-3.18			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1029.34			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		25.00	1029.34			
						0.00			feet sedimentation
		Before Sampling				1054.34			
		Before Sampling				1054.34			
		Recovery				1054.34			
		Recovery				1054.34			
		Recovery				1054.34			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-32**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1056.82
Well Depth	27.80
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1056.82
Well Depth	27.80
Top Screen	1034.02
Bottom Screen	1029.02
Bottom Well	1029.02
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1056.82
Bottom sample	1052.82
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/18/2024		21.29	1031.04	WL only

**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
Appendix I	Metals	150	150	0
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1056.82	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	27.80	Before purging	9/18/2024	0:00	21.29	1035.53		0.0	
Capped	YES	After purging				1056.82			
Standing Water	NO	Top of Screen 1990				1034.02			
Litter	NO					1.51			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1029.02			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		27.80	1029.02			
						0.00			feet sedimentation
		Before Sampling				1056.82			
		Recovery				1056.82			
		Recovery				1056.82			
		Recovery				1056.82			
		Recovery				1056.82			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-37D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1073.31
Well Depth	80.10
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

**NO PURGE METHOD**

TOC	1073.31
Well Depth	80.10
Top Screen	994.71
Bottom Screen	993.21
Bottom Well	991.66
Sampler Length (ft)	1.00
Sampler Volume (mL)	110.00
Feet cordage	
Top sample	1073.31
Bottom sample	1072.31
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/18/2024		79.9	993.41	DRY

**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
Appendix I	Metals	150	150	0
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1073.31	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	80.10	Before purging	9/18/2024	0:00	79.90	993.41		0.0	
Capped	YES	After purging				1073.31			
Standing Water	NO	Top of Screen 1990				994.71			
Litter	NO					-1.30			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				993.21			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		79.90	993.41			
						0.20			feet sedimentation
		Before Sampling				1073.31			
		Before Sampling				1073.31			
		Recovery				1073.31			
		Recovery				1073.31			
		Recovery				1073.31			



**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-38A**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1075.92
Well Depth	27.25
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	1075.92
Well Depth	27.25
Top Screen	1053.67
Bottom Screen	1048.67
Bottom Well	1048.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1075.92
Bottom sample	1071.92
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/18/2024		26.73	1049.19	too dry no sample

**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
Appendix I	Metals	150	150	0
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1075.92	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	27.25	Before purging	9/18/2024	0:00	26.73	1049.19	0	0.0	No
Capped	YES	After purging				1075.92			
Standing Water	NO	Top of Screen 2019				1053.67			
Litter	NO					-4.48			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2019				1048.67			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		27.65	1048.27			
						-0.40			feet sedimentation
		Before Sampling				1075.92			
		Before Sampling				1075.92			
		Recovery				1075.92			
		Recovery				1075.92			
		Recovery				1075.92			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-39D**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1076.19
Well Depth	90.50
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	1076.19
Well Depth	90.50
Top Screen	988.69
Bottom Screen	985.69
Bottom Well	984.67
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	84.00
Top sample	992.19
Bottom sample	988.19
Turbidity(NTU)	1.96

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	8:05	63.18	1013.01	

**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	1.96
Appendix I	Metals	150	150	1.96
Appendix I	VOC	240	240	1.96
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1076.19	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	90.50	Before purging	9/18/2024	8:05	63.18	1013.01		0.0	
Capped	YES	After purging				1076.19			
Standing Water	NO	Top of Screen 1990				988.69			
Litter	NO					24.32			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				985.69			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		90.20	985.99			
						0.30			feet sedimentation
		Before Sampling				1076.19			
		Recovery				1076.19			
		Recovery				1076.19			
		Recovery				1076.19			
		Recovery				1076.19			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-41D**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1039.09
Well Depth	53.20
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	1039.09
Well Depth	53.20
Top Screen	988.89
Bottom Screen	985.89
Bottom Well	984.32
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	47.50
Top sample	991.59
Bottom sample	987.59
Turbidity(NTU)	1.75

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	8:25	47.9	991.19	

**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	1.75
Appendix I	Metals	150	150	1.75
Appendix I	VOC	240	240	1.75
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1039.09	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	53.20	Before purging	9/18/2024	8:25	47.90	991.19		0.0	
Capped	YES	After purging				1039.09			
Standing Water	NO	Top of Screen 1990				988.89			
Litter	NO					2.30			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				985.89			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		53.00	986.09			
						0.20			feet sedimentation
		Before Sampling				1039.09			
		Recovery				1039.09			
		Recovery				1039.09			
		Recovery				1039.09			
		Recovery				1039.09			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-42D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1035.79
Well Depth	43.43
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	1035.79
Well Depth	43.43
Top Screen	994.36
Bottom Screen	992.36
Bottom Well	992.36
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	38.00
Top sample	997.79
Bottom sample	993.79
Turbidity(NTU)	1.71

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	10:48	38.08	997.71	

**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	1.71
Appendix I	Metals	150	150	1.71
Appendix I	VOC	240	240	1.71
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1035.79	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	43.43	Before purging	9/18/2024	10:48	38.08	997.71		0.0	
Capped	YES	After purging				1035.79			
Standing Water	NO	Top of Screen 1990				994.36			
Litter	NO					3.35			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				992.36			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		43.40	992.39			
						0.03			feet sedimentation
		Before Sampling				1035.79			
		Recovery				1035.79			
		Recovery				1035.79			
		Recovery				1035.79			
		Recovery				1035.79			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **MW-44**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1051.33
Well Depth	18.62
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	1051.33
Well Depth	18.62
Top Screen	1037.71
Bottom Screen	1032.71
Bottom Well	1032.71
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	13.00
Top sample	1038.33
Bottom sample	1034.33
Turbidity(NTU)	56.18

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	14:10	9.78	1041.55	

**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	56.18
Appendix I	Metals	150	150	56.18
Appendix I	VOC	240	240	56.18
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1051.33	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	18.62	Before purging	9/18/2024	14:10	9.78	1041.55		0.0	
Capped	YES	After purging				1051.33			
Standing Water	NO	Top of Screen 2023				1037.71			
Litter	NO					3.84			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				1032.71			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		18.60	1032.73			
						0.02			feet sedimentation
		Before Sampling				1051.33			
		Recovery				1051.33			
		Recovery				1051.33			
		Recovery				1051.33			
		Recovery				1051.33			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: **LW-26**

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1108.21
Well Depth	65.00
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	1108.21
Well Depth	65.00
Top Screen	1083.21
Bottom Screen	1043.21
Bottom Well	1042.30
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	
Top sample	1108.21
Bottom sample	1104.21
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
9/18/2024		55.92	1052.29	WL Only

**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	150	150	0.00
Appendix I	VOC	240	240	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental	Leachate			
Supplemental				
Total		400	0	

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

TOC	1108.21	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	65.00	Before purging	9/18/2024	0:00	55.92	1052.29		0.0	
Capped	YES	After purging				1108.21			
Standing Water	NO	Top of Screen 1990				1083.21			
Litter	NO					-30.92			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 1990				1043.21			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		59.10	1049.11			
						5.90			feet sedimentation
		Before Sampling				1108.21			
		Before Sampling				1108.21			
		Recovery				1108.21			
		Recovery				1108.21			
		Recovery				1108.21			

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
9/18/2024		Underdrain	DRY		No	No	No
							Turbidity(NTU)

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
9/18/2024		UG Surface Water	Dry	Dry	No	No	No
<b>VOC Only</b>							Turbidity(NTU)

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
9/18/2024	15:00	SRAMP	yes	2"x6"x1 ft/sec	No	No	No
<b>VOC Only</b>							Turbidity(NTU)
							4.39

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
9/18/2024	15:12	DG Surface Water	yes	2"x6"x1 ft/sec	No	No	No
<b>VOC Only</b>							Turbidity(NTU)
							5.35

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
9/18/2024	13:34	Ground Tile	yes	250 mL per 45 sec	No	No	No
							Turbidity(NTU)
							18.16

**IDNR Form 542-1324**

Date	Time	Type	Flowing	Quantity	Discolored	Odor	Litter
9/18/2024	12:37	Ground Tile	yes	250 mL per 20 sec	No	No	No
							Turbidity(NTU)
							6.68

**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-45A

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1033.1
Well Depth	13.60
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	1033.1
Well Depth	13.60
Top Screen	1022.50
Bottom Screen	1019.50
Bottom Well	1019.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	11.50
Top sample	1021.60
Bottom sample	1017.60
Turbidity(NTU)	2.25

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	9:03	11.3	1021.8	

**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	2.25
Appendix I	Metals	150	150	2.25
Appendix I	VOC	240	240	2.25
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1033.1	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	13.60	Before purging	9/18/2024	9:03	11.30	1021.80		0.0	
Capped	YES	After purging				1033.10			
Standing Water	NO	Top of Screen 2023				1022.50			
Litter	NO					-0.70			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				1019.50			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		13.60	1019.50			
						0.00			feet sedimentation
		Before Sampling				1033.10			
		Recovery				1033.10			
		Recovery				1033.10			
		Recovery				1033.10			
		Recovery				1033.10			



**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

9/18/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 70-87 degrees

IDNR Form 542-1322

Monitoring Well: MW-45D

Primary Sampling Method:  
Secondary Sampling Method:

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

**GENERAL INFORMATION**

TOC	1033.44
Well Depth	38.45
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	1033.44
Well Depth	38.45
Top Screen	997.49
Bottom Screen	994.99
Bottom Well	994.99
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	33.00
Top sample	1000.44
Bottom sample	996.44
Turbidity(NTU)	2.19

Date	Time	Water Level	Water Elevation	Notes
9/18/2024	9:13	24.27	1009.17	

**ANALYTES, CONTAINERS, AND VOLUMES**

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	2.19
Appendix I	Metals	150	150	2.19
Appendix I	VOC	240	240	2.19
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		400	0	

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

TOC	1033.44	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	38.45	Before purging	9/18/2024	9:13	24.27	1009.17		0.0	
Capped	YES	After purging				1033.44			
Standing Water	NO	Top of Screen 2023				997.49			
Litter	NO					11.68			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				994.99			
Equipment	Disposable Bailer	Bottom of Well	9/18/2024		38.45	994.99			
						0.00			feet sedimentation
		Before Sampling				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			





**South Central Iowa Landfill Agency  
PERMIT # 61-SDP-01-78P**

12/9/2024

Sampled by: Todd Whipple

Weather conditions: Sunny, breezy, 78 degrees

IDNR Form 542-1322

Monitoring Well: MW-45D

Primary Sampling Method:

No-Purge for Appendix I

Secondary Sampling Method:

Purge & Sample for all analytes beyond Appendix I

**GENERAL INFORMATION**

TOC	1033.44
Well Depth	38.45
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	1033.44
Well Depth	38.45
Top Screen	997.49
Bottom Screen	994.99
Bottom Well	994.99
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	32.00
Top sample	1001.44
Bottom sample	997.44
Turbidity(NTU)	

Date	Time	Water Level	Water Elevation	Notes
12/9/2024	11:43	23.79	1009.65	

VOC resample

**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	150	0	0.00
Appendix I	VOC	240	120	0.00
Full Appendix II	10 more containers	5620		
TSS	TSS	1000		
Supplemental				
Supplemental				
Total		130	0	

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

TOC	1033.44	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	38.45	Before purging	12/9/2024	11:43	23.79	1009.65			no
Capped	YES	After purging				1033.44			
Standing Water	NO	Top of Screen 2023				997.49			
Litter	NO					12.16			feet above (+) or below (-) top screen
Level Tape	Solinst	Bottom of Well 2023				994.99			
Equipment	Disposable Bailer	Bottom of Well	12/9/2024		38.45	994.99			
						0.00			feet sedimentation
		Before Sampling				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			
		Recovery				1033.44			

## Appendix C

### Statistical Report

## Appendix C.1 Spring - Otter Creek Statistical Report

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**GROUND WATER STATISTICS**  
**FOR THE**  
**SOUTH CENTRAL IOWA LANDFILL**

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

Prepared for:  
**South Central Iowa Landfill Agency**  
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Winterset, Madison County, IA

Prepared by:  
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**Otter Creek Environmental Services, LLC**  
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Elgin, IL 60124  
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**May 2024**

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## INTRODUCTION

This report summarizes the results of the statistical analysis used to evaluate the ground water quality data obtained during the first semi-annual monitoring event in 2024 at the South Central Iowa Landfill in Winterset, Iowa. The statistical plan was designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. The interwell statistical method was applied to the current data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document (“*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance*”, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

### Ground Water Monitoring Program

The shallow groundwater monitoring network for the South Central Iowa Landfill includes sample points MW-4A, MW-18, GU-1, GU-2, GU-A, GU-B, MW-1R, MW-6A, MW-21, Tile 1, Tile 2, MW-38A, MW-44, and MW-45A. The deep groundwater monitoring network for the South Central Iowa Landfill includes sample points MW-11C, MW-39D, MW-41D, MW-42D, MW-45D, MW-14D, MW-17R, and MW-28. Supplemental wells monitored include MW-8B, MW-9AR, and MW-15R. Additionally, surface water is monitored from a stream on the western edge of the property at sample points SW-1, SW-101, SW-102, SW-103, SW-104, SW-105, SW-106, and SW-2B. Each of the groundwater monitoring wells and surface waters are to be sampled at least semiannually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds, summarized in Table 1 below.

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

*Organic Compounds:*

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

*Inorganic constituents:*

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



The ground water and surface 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 prediction limit method was applied to the South Central Iowa Landfill data using the DUMPStat<sup>®</sup> statistical program. Ground water statistics are to be done on the inorganic constituents listed. The organic constituents are compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to historical concentrations.

### **Interwell Statistics: Upgradient versus Downgradient Comparisons**

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

Since there is limited background, Poisson prediction limits were previously computed for those rarely detected parameters. Poisson prediction limits are appropriate for small data sets. Once twelve rounds of data are available, it was recommended that nonparametric prediction limits be used for parameters detected at a frequency less than 25%. Since the Unified Guidance recommends nonparametric limits over Poisson limits, nonparametric limits were used for the current comparisons.

### **Results of the Interwell Statistics (Shallow Ground Water Samples)**

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-4A and MW-18 during the period from September 2014 through the current data. A summary of the background data from monitoring wells MW-4A and MW-18, 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-2, GU-A, GU-B, MW-21, MW-44, MW-45A, Tile 1, and Tile 2, 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
GU-2	Selenium	168	16.2000	Nonparametric	Awaiting verification
	Zinc	691	53.3000	Nonparametric	Verified
GU-A	Antimony	5.6	5.5000	Nonparametric	Verified
	Nickel	36.9	23.8000	Nonparametric	Verified
	Selenium	19.6	16.2000	Nonparametric	Verified
	Zinc	877	53.3000	Nonparametric	Verified
GU-B	Antimony	7.8	5.5000	Nonparametric	Verified
	Nickel	41.0	23.8000	Nonparametric	Awaiting verification
	Selenium	28.4	16.2000	Nonparametric	Awaiting verification
	Zinc	93.2	53.3000	Nonparametric	Verified
MW-44	Barium	795	623.3256	Normal	Verified
Tile 1	Barium	2250	623.3256	Normal	Verified
	Nickel	43.5	23.8000	Nonparametric	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 6% and the test becomes sensitive to 4 standard deviation unit increases over background.

The verified trace metal 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, 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 calculated 95% LCLs are below GWPS.

**Results of the Interwell Statistics (Bedrock Ground Water Samples)**

The previous background data used in this statistical analysis included the ground water data collected from ground water wells MW-7B and MW-11C during the period from September 2014 through the current data. The background data used in this statistical analysis includes the ground water data collected from ground water well MW-11C during the period from September 2014 through the current data, and new wells MW-39D, MW-41D, and MW-42D. A summary of the background data from monitoring wells MW-11C, MW-39D, MW-41D, and MW-42D, used to determine the site prediction limits, is listed in Attachment D, 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-14D, MW-17R, MW-28, and MW-45D 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-17R	Barium	432	124.0644	Lognormal	Verified
	Nickel	18.9	11.8000	Nonparametric	Verified
MW-28	Arsenic	59.7	5.8000	Nonparametric	Awaiting verification
	Barium	1390	124.0644	Lognormal	Verified
	Cobalt	72.7	5.4000	Nonparametric	Verified
	Nickel	26.9	11.8000	Nonparametric	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. For interwell analysis, the site-wide false positive rate is 1% and the test becomes sensitive to 4 standard deviation unit increases over background.

The verified trace metal exceedances were evaluated against the GWPS (Attachment E). The 95% LCL for cobalt MW-28 (31.665 µg/L) exceeds the GWPS of 2.1 µg/L. The remainder of the calculated 95% LCLs are below GWPS.

**Supplemental Downgradient Attenuation Zone**

Time series plots of the Appendix I trace metals at wells MW-8B, MW-9AR, and MW-15R are provided in Attachment F. No increasing trends were detected in the data.

## Volatile Organic Compounds

Volatile Organic Compounds (VOCs) are generally man-made compounds not present in ambient ground water. If VOCs are detected above their statistical limit (i.e., the laboratory PQL or reporting limit), a verification resample will be conducted at the next scheduled sampling event. A statistical exceedance will be indicated if the VOC detection is confirmed by the subsequent monitoring. VOCs detected in the ground water at South Central Iowa Landfill during the first semi-annual monitoring event in 2024 are summarized below. Historical VOC detections are summarized in Attachment G.

**VOCs Detected at SCILA during the First Semi-Annual Monitoring Event in 2024**

Well	VOC Detected	Result µg/L	Reporting Limit µg/L	Verified/Awaiting Verification	Ground Water Standard, µg/L
LW26	1,4-Dichlorobenzene	3.7	1	Verified	75 <sup>a</sup>
	Benzene	9.7	1	Verified	5 <sup>a</sup>
	Chlorobenzene	8.2	1	Verified	100 <sup>a</sup>
MW-14D	Bis(2-ethylhexyl)phthalate	10.0	6	Awaiting Verification	6 <sup>a</sup>
MW-17R	<i>cis</i> -1,2-Dichloroethene	1.1	1	Verified	70 <sup>a</sup>
MW-28	<i>cis</i> -1,2-Dichloroethene	9.2	1	Verified	70 <sup>a</sup>
MW-32	Chlorobenzene	2.2	1	Awaiting Verification	100 <sup>a</sup>
MW-44	Bis(2-ethylhexyl)phthalate	14.0	6	Awaiting Verification	6 <sup>a</sup>
MW-9AR	1,1-Dichloroethane	1.3	1	Verified	140 <sup>b</sup>
	1,2-Dichloropropane	1.1	1	Awaiting Verification	5 <sup>a</sup>
	1,4-Dichlorobenzene	1.0	1	Awaiting Verification	75 <sup>a</sup>
	Benzene	2.4	1	Verified	5 <sup>a</sup>
	Chlorobenzene	5.8	1	Verified	100 <sup>a</sup>
	<i>cis</i> -1,2-Dichloroethene	58.9	1	Verified	70 <sup>a</sup>
	<i>trans</i> -1,2-Dichloroethene	5.1	1	Verified	100 <sup>a</sup>
	Trichloroethene	1.7	1	Verified	5 <sup>a</sup>
	Vinyl chloride	45.1	1	Verified	2 <sup>a</sup>
Tile 1	1,4-Dichlorobenzene	1.8	1	Verified	75 <sup>a</sup>
	Chlorobenzene	1.8	1	Verified	100 <sup>a</sup>
Tile 2	<i>cis</i> -1,2-Dichloroethene	6.9	1	Verified	70 <sup>a</sup>
	Vinyl chloride	1.0	1	Verified	2 <sup>a</sup>

a – USEPA MCL,

b – Iowa Statewide Standard

The past and current verified VOC detections 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, USEPA, March 2009 (Attachment H). 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 vinyl chloride MW-9AR (6.558 µg/L) exceeds the GWPS of 2 µg/L. The remainder of the calculated 95% LCLs are below GWPS.

Surface water sample points SW-102 and SW-2B were sampled on March 6, 2024 and analyzed for VOCs. No VOCs were detected above the site-specific reporting limits.

**Attachment A**

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

Table 1

Analytical Data Summary for 3/6/2024

Constituents	Units	GU-2	GU-A	GU-B	MW-11C	MW-14D	MW-15R	MW-17R	MW-21	MW-28	MW-32	MW-39D
(3 4)-methylphenol	ug/L					<8						
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethylene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L					<1						
1,2,3-trichloropropane	ug/L	<1	<1	<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	<5	<5	<5	<5	<1	<5	<5	<5	<5	<5	<5
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
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	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-naphthoquinone	ug/L					<8						
1,4-phenylenediamine	ug/L					<8						
1-naphthylamine	ug/L					<8						
2,2-dichloropropane	ug/L					<1						
2,3,4,6-tetrachlorophenol	ug/L					<8						
2,4,5-t	ug/L					<5						
2,4,5-tp (silvex)	ug/L					<5						
2,4,5-trichlorophenol	ug/L					<8						
2,4,6-trichlorophenol	ug/L					<8						
2,4-d	ug/L					<2						
2,4-dichlorophenol	ug/L					<8						
2,4-dimethylphenol	ug/L					<8						
2,4-dinitrophenol	ug/L					<8						
2,4-dinitrotoluene	ug/L					<8						
2,6-dichlorophenol	ug/L					<8						
2,6-dinitrotoluene	ug/L					<8						
2-acetylaminofluorene	ug/L					<8						
2-butanone (mek)	ug/L	<10	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10
2-chloronaphthalene	ug/L					<8						
2-chlorophenol	ug/L					<8						
2-hexanone (mbk)	ug/L	<5	<5	<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	<5	<5
4-nitroaniline	ug/L					<8						
4-nitrophenol	ug/L					<8						
5-nitro-o-toluidine	ug/L					<8						
7,12-dimethylbenz(a)anthracene	ug/L					<8						
Acenaphthene	ug/L					<8						
Acenaphthylene	ug/L					<8						
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L					<10						
Acetophenone	ug/L					<8						
Acrolein	ug/L					<10						
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<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 1

Analytical Data Summary for 3/6/2024

Constituents	MW-41D	MW-42D	MW-44	MW-45A	MW-45D	MW-8B	MW-9AR	SW-102	SW-2B	TILE 1	TILE 2
(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	<1.0	1.3	<1.0	<1.0	<1.0	<1.0
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	<5	<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			<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0
1,2-dinitrobenzene			<8								
1,3,5-trinitrobenzene			<8								
1,3-dichlorobenzene			<1								
1,3-dichloropropane			<1								
1,3-dinitrobenzene			<8								
1,4-dichlorobenzene			<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	1.8	<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	<10	<10	<10	<10	<10	<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	<10	<10	<10	<10	<10	<10	<10	<10
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 1

Analytical Data Summary for 3/6/2024

Constituents	Units	GU-2	GU-A	GU-B	MW-11C	MW-14D	MW-15R	MW-17R	MW-21	MW-28	MW-32	MW-39D
Antimony, total	ug/L	2.0	5.6	7.8	<2.0	2.2	<2.0	<2.0	<2.0	<2.0		<2.0
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	<4.0	<4.0	<4.0	<4.0	<4.0	57.2	<4.0	<4.0	59.7	<4.0	<4.0
Azobenzene	ug/L					<8						
Barium, total	ug/L	183.0	25.8	77.8	75.4	17.6	673.0	432.0	142.0	1390.0		34.5
Benzene	ug/L	<1.0	<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		<4
Beta-bhc	ug/L					<.05						
Bicarbonate, as cacO3	mg/L						541					
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					10						
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Bromomethane	ug/L	<1	<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		<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Carbon tetrachloride	ug/L	<1	<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	<1.0	2.2	
Chlorobenzilate	ug/L					<8						
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Chloromethane	ug/L	<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
Chrysene	ug/L					<8						
Cis-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	9.2	<1.0	
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Cobalt, total	ug/L	.8	<.4	1.7	<.4	4.7	1.1	4.0	<.4	72.7		<.4
Copper, total	ug/L	<4	<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	<1	
Dibromomethane	ug/L	<1	<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	<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						

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

Table 1

Analytical Data Summary for 3/6/2024

Constituents	MW-41D	MW-42D	MW-44	MW-45A	MW-45D	MW-8B	MW-9AR	SW-102	SW-2B	TILE 1	TILE 2
Antimony, total	<2.0	<2.0	<2.0	<2.0	2.0	<2.0	<2.0			<2.0	<2.0
Arochlor 1016			<.2								
Arochlor 1221			<.2								
Arochlor 1232			<.2								
Arochlor 1242			<.2								
Arochlor 1248			<.2								
Arochlor 1254			<.2								
Arochlor 1260			<.2								
Arsenic, total	<4.0	4.2	<4.0	<4.0	<4.0	18.0	7.0			<4.0	<4.0
Azobenzene			<.8								
Barium, total	32.6	37.0	795.0	89.3	32.3	806.0	653.0			2250.0	528.0
Benzene			<1.0	<1.0	<1.0	<1.0	2.4	<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								
Bicarbonate, as cacO3						695	662				
Bis (2-chloroethoxy) methane			<.8								
Bis(2-chloroethyl) ether			<.8								
Bis(2-chloroisopropyl) ether			<.8								
Bis(2-ethylhexyl) phthalate			14								
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	1.3			<.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	<1.0	5.8	<1.0	<1.0	1.8	<1.0
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	<.8	<.8	<.8	<.8	<.8	<.8			<.8	<.8
Chrysene			<.8								
Cis-1,2-dichloroethylene			<1.0	<1.0	<1.0	<1.0	58.9	<1.0	<1.0	<1.0	6.9
Cis-1,3-dichloropropene			<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Cobalt, total	1.0	<.4	.7	<.4	2.1	12.3	4.3			2.5	.8
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								

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

Table 1

Analytical Data Summary for 3/6/2024

Constituents	Units	GU-2	GU-A	GU-B	MW-11C	MW-14D	MW-15R	MW-17R	MW-21	MW-28	MW-32	MW-39D
Hexachlorobenzene	ug/L					<.05						
Hexachlorobutadiene	ug/L					<8						
Hexachlorocyclopentadiene	ug/L					<8						
Hexachloroethane	ug/L					<8						
Hexachloropropene	ug/L					<8						
Indeno(1,2,3-cd)pyrene	ug/L					<8						
Isobutanol	mg/L					<1						
Isodrin	ug/L					<8						
Isophorone	ug/L					<8						
Isosafrole	ug/L					<8						
Kepone	ug/L					<8						
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<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	<2	<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	<5	
Naphthalene	ug/L					<8						
Nickel, total	ug/L	18.9	36.9	41.0	<4.0	<4.0	<4.0	18.9	<4.0	26.9		<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						
pH	pH						6.6					
Phenacetin	ug/L					<8						
Phenanthrene	ug/L					<8						
Phenol	ug/L					<8						
Phorate	ug/L					<.4						
Pronamide	ug/L					<8						
Propionitrile	ug/L					<10						
Pyrene	ug/L					<8						
Safrole	ug/L					<8						
Selenium, total	ug/L	168.0	19.6	28.4	<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	<4		<4
Styrene	ug/L	<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	
Thallium, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2		<2
Thionazin	ug/L					<.4						
Tin, total	ug/L					<20						
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Toxaphene	ug/L					<.2						
Trans-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trans-1,3-dichloropropene	ug/L	<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	
Trichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20		<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Vinyl chloride	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Zinc, total	ug/L	691.0	877.0	93.2	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0		20.4

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

Table 1

Analytical Data Summary for 3/6/2024

Constituents	MW-41D	MW-42D	MW-44	MW-45A	MW-45D	MW-8B	MW-9AR	SW-102	SW-2B	TILE 1	TILE 2
Hexachlorobenzene			<.05								
Hexachlorobutadiene			<8								
Hexachlorocyclopentadiene			<8								
Hexachloroethane			<8								
Hexachloropropene			<8								
Indeno(1,2,3-cd)pyrene			<8								
Isobutanol			<1								
Isodrin			<8								
Isophorone			<8								
Isosafrole			<8								
Kepone			<8								
Lead, total	<4	<4	<4	<4	<4	<4	<4			<4	<4
Mercury, total			<.5								
Methacrylonitrile			<1								
Methapyrilene			<8								
Methoxychlor			<.05								
Methyl iodide			<2	<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	4.3	<4.0	<4.0	4.3	5.2	6.7	19.5			43.5	5.8
Nitrobenzene			<8								
N-nitrosodiethylamine			<8								
N-nitrosodimethylamine			<8								
N-nitrosodi-n-butylamine			<8								
N-nitroso-di-n-propylamine			<8								
N-nitrosodiphenylamine			<8								
N-nitrosomethylethylamine			<8								
N-nitrosopiperidine			<8								
N-nitrosopyrrolidine			<8								
O,o,o-triethyl phosphorothioate			<4								
O-toluidine			<8								
Parathion			<4								
P-dimethylaminoazobenzene			<8								
Pentachlorobenzene			<8								
Pentachloronitrobenzene (pcnb)			<8								
Pentachlorophenol			<8								
pH						6.6	6.6				
Phenacetin			<8								
Phenanthrene			<8								
Phenol			<8								
Phorate			<4								
Pronamide			<8								
Propionitrile			<10								
Pyrene			<8								
Safrole			<8								
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0			<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4			<4	<4
Styrene			<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total			<1.5								
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			<1.0	<1.0	<1.0	<1.0	5.1	<1.0	<1.0	<1.0	<1.0
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			<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0	<1.0
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			<1.0	<1.0	<1.0	<1.0	45.1	<1.0	<1.0	<1.0	1.0
Xylenes, total			<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	44.6			<20.0	<20.0

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

Table 2

## Analytical Data Summary for 4/1/2024

Constituents	Units	LW26
1,1,1,2-tetrachloroethane	ug/L	<1
1,1,1-trichloroethane	ug/L	<1
1,1,2,2-tetrachloroethane	ug/L	<1
1,1,2-trichloroethane	ug/L	<1
1,1-dichloroethane	ug/L	<1
1,1-dichloroethylene	ug/L	<1
1,2,3-trichloropropane	ug/L	<1
1,2-dibromo-3-chloropropane	ug/L	<5
1,2-dibromoethane	ug/L	<1
1,2-dichlorobenzene	ug/L	<1
1,2-dichloroethane	ug/L	<1
1,2-dichloropropane	ug/L	<1
1,4-dichlorobenzene	ug/L	3.7
2-butanone (mek)	ug/L	<10
2-hexanone (mbk)	ug/L	<5
4-methyl-2-pentanone (mibk)	ug/L	<5
Acetone	ug/L	<10
Acrylonitrile	ug/L	<5
Benzene	ug/L	9.7
Bicarbonate, as cacO3	mg/L	1520
Bod (5 day)	mg/L	56
Bromochloromethane	ug/L	<1
Bromodichloromethane	ug/L	<1
Bromoform	ug/L	<1
Bromomethane	ug/L	<1
Carbon disulfide	ug/L	<1
Carbon tetrachloride	ug/L	<1
Chemical oxygen demand	mg/L	833
Chlorobenzene	ug/L	8.2
Chloroethane	ug/L	<1
Chloroform	ug/L	<1
Chloromethane	ug/L	<1
Cis-1,2-dichloroethylene	ug/L	<1
Cis-1,3-dichloropropene	ug/L	<1
Cobalt, total	ug/L	11.2
Dibromochloromethane	ug/L	<1
Dibromomethane	ug/L	<1
Ethylbenzene	ug/L	<1
Methyl iodide	ug/L	<1
Methylene chloride	ug/L	<5
Nitrogen, ammonia	mg/L	252
pH	pH	7
Solids, total dissolved	mg/L	2350
Solids, total suspended	mg/L	4680
Styrene	ug/L	<1
Sulfate	mg/L	16.2
Tetrachloroethylene	ug/L	<1
Toluene	ug/L	<1
Trans-1,2-dichloroethylene	ug/L	<1
Trans-1,3-dichloropropene	ug/L	<1
Trans-1,4-dichloro-2-butene	ug/L	<5
Trichloroethylene	ug/L	<1
Trichlorofluoromethane	ug/L	<1
Vinyl acetate	ug/L	<5
Vinyl chloride	ug/L	<1
Xylenes, total	ug/L	<2

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

**Attachment B**

Summary Tables and Graphs for the Interwell Comparisons  
Shallow Ground Water

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-18	09/23/2014	ND	2.0000		
Antimony, total	ug/L	MW-18	12/02/2014	ND	2.0000		
Antimony, total	ug/L	MW-18	03/19/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	06/17/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	08/27/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	03/03/2016		2.6000		
Antimony, total	ug/L	MW-18	09/20/2016	ND	2.0000		
Antimony, total	ug/L	MW-18	03/09/2017	ND	2.0000		
Antimony, total	ug/L	MW-18	09/14/2017	ND	2.0000		
Antimony, total	ug/L	MW-18	03/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-18	09/10/2018	ND	2.0000		
Antimony, total	ug/L	MW-18	03/26/2019	ND	2.0000		
Antimony, total	ug/L	MW-18	09/16/2019	ND	2.0000		
Antimony, total	ug/L	MW-18	03/24/2020	ND	2.0000		
Antimony, total	ug/L	MW-18	09/02/2020	ND	2.0000		
Antimony, total	ug/L	MW-18	03/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-18	09/14/2021	ND	2.0000		
Antimony, total	ug/L	MW-18	03/28/2022		2.1000		
Antimony, total	ug/L	MW-18	09/13/2022	ND	2.0000		
Antimony, total	ug/L	MW-18	03/23/2023		4.2000		
Antimony, total	ug/L	MW-18	09/05/2023		5.5000		
Arsenic, total	ug/L	MW-18	09/23/2014		23.0000		
Arsenic, total	ug/L	MW-18	12/02/2014		38.7000		
Arsenic, total	ug/L	MW-18	03/19/2015		30.7000		
Arsenic, total	ug/L	MW-18	06/17/2015		53.7000		
Arsenic, total	ug/L	MW-18	08/27/2015		26.8000		
Arsenic, total	ug/L	MW-18	03/03/2016		97.7000	*	
Arsenic, total	ug/L	MW-18	09/20/2016		33.2000		
Arsenic, total	ug/L	MW-18	03/09/2017		34.0000		
Arsenic, total	ug/L	MW-18	07/12/2017		22.3000		
Arsenic, total	ug/L	MW-18	09/14/2017		8.3000		
Arsenic, total	ug/L	MW-18	12/13/2017		7.2000		
Arsenic, total	ug/L	MW-18	03/12/2018		11.6000		
Arsenic, total	ug/L	MW-18	09/10/2018		11.4000		
Arsenic, total	ug/L	MW-18	03/26/2019		26.1000		
Arsenic, total	ug/L	MW-18	09/16/2019		13.0000		
Arsenic, total	ug/L	MW-18	03/24/2020		10.7000		
Arsenic, total	ug/L	MW-18	09/02/2020		14.3000		
Arsenic, total	ug/L	MW-18	03/08/2021		14.2000		
Arsenic, total	ug/L	MW-18	09/14/2021		15.3000		
Arsenic, total	ug/L	MW-18	03/28/2022		26.8000		
Arsenic, total	ug/L	MW-18	09/13/2022		34.0000		
Arsenic, total	ug/L	MW-18	03/23/2023		79.4000	*	
Arsenic, total	ug/L	MW-18	09/05/2023		26.8000		
Barium, total	ug/L	MW-18	09/23/2014		407.0000		
Barium, total	ug/L	MW-18	12/02/2014		459.0000		
Barium, total	ug/L	MW-18	03/19/2015		436.0000		
Barium, total	ug/L	MW-18	06/17/2015		377.0000		
Barium, total	ug/L	MW-18	08/27/2015		392.0000		
Barium, total	ug/L	MW-18	03/03/2016		486.0000		
Barium, total	ug/L	MW-18	09/20/2016		320.0000		
Barium, total	ug/L	MW-18	03/09/2017		465.0000		
Barium, total	ug/L	MW-18	09/14/2017		452.0000		
Barium, total	ug/L	MW-18	03/12/2018		410.0000		
Barium, total	ug/L	MW-18	09/10/2018		374.0000		
Barium, total	ug/L	MW-18	03/26/2019		352.0000		
Barium, total	ug/L	MW-18	09/16/2019		559.0000		
Barium, total	ug/L	MW-18	03/24/2020		330.0000		
Barium, total	ug/L	MW-18	09/02/2020		478.0000		
Barium, total	ug/L	MW-18	03/08/2021		463.0000		
Barium, total	ug/L	MW-18	09/14/2021		499.0000		
Barium, total	ug/L	MW-18	03/28/2022		479.0000		
Barium, total	ug/L	MW-18	09/13/2022		551.0000		
Barium, total	ug/L	MW-18	03/23/2023		655.0000		
Barium, total	ug/L	MW-18	09/05/2023		509.0000		
Beryllium, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Beryllium, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Beryllium, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Beryllium, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/14/2017	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	
Beryllium, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/28/2022	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/13/2022	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/23/2023	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/05/2023	ND	4.0000		
Cadmium, total	ug/L	MW-18	09/23/2014	ND	0.8000		
Cadmium, total	ug/L	MW-18	12/02/2014	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/19/2015	ND	0.8000		
Cadmium, total	ug/L	MW-18	06/17/2015	ND	0.8000		
Cadmium, total	ug/L	MW-18	08/27/2015	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/03/2016	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/20/2016	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/09/2017	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/14/2017		1.3000		
Cadmium, total	ug/L	MW-18	03/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/26/2019	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/24/2020	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/14/2021	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/28/2022		1.3000		
Cadmium, total	ug/L	MW-18	09/13/2022		1.1000		
Cadmium, total	ug/L	MW-18	03/23/2023		3.9000		*
Cadmium, total	ug/L	MW-18	09/05/2023		1.8000		
Chromium, total	ug/L	MW-18	09/23/2014	ND	8.0000		
Chromium, total	ug/L	MW-18	12/02/2014	ND	8.0000		
Chromium, total	ug/L	MW-18	03/19/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	06/17/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	08/27/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	03/03/2016	ND	8.0000		
Chromium, total	ug/L	MW-18	09/20/2016	ND	8.0000		
Chromium, total	ug/L	MW-18	03/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-18	09/14/2017		10.4000		
Chromium, total	ug/L	MW-18	03/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-18	09/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-18	03/26/2019	ND	8.0000		
Chromium, total	ug/L	MW-18	09/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-18	03/24/2020	ND	8.0000		
Chromium, total	ug/L	MW-18	09/02/2020	ND	8.0000		
Chromium, total	ug/L	MW-18	03/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-18	09/14/2021	ND	8.0000		
Chromium, total	ug/L	MW-18	03/28/2022	ND	8.0000		
Chromium, total	ug/L	MW-18	09/13/2022	ND	8.0000		
Chromium, total	ug/L	MW-18	03/23/2023	ND	8.0000		
Chromium, total	ug/L	MW-18	09/05/2023	ND	8.0000		
Cobalt, total	ug/L	MW-18	09/23/2014		0.8000		
Cobalt, total	ug/L	MW-18	12/02/2014		1.2000		
Cobalt, total	ug/L	MW-18	03/19/2015		1.3000		
Cobalt, total	ug/L	MW-18	06/17/2015		1.4000		
Cobalt, total	ug/L	MW-18	08/27/2015		0.9000		
Cobalt, total	ug/L	MW-18	03/03/2016		2.1000		
Cobalt, total	ug/L	MW-18	09/20/2016		3.5000		
Cobalt, total	ug/L	MW-18	03/09/2017		1.9000		
Cobalt, total	ug/L	MW-18	09/14/2017		3.1000		
Cobalt, total	ug/L	MW-18	03/12/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-18	09/10/2018		0.9000		
Cobalt, total	ug/L	MW-18	03/26/2019		1.6000		
Cobalt, total	ug/L	MW-18	09/16/2019		1.0000		
Cobalt, total	ug/L	MW-18	03/24/2020	ND	0.8000		
Cobalt, total	ug/L	MW-18	09/02/2020		0.8000		
Cobalt, total	ug/L	MW-18	03/08/2021		1.1000		
Cobalt, total	ug/L	MW-18	09/14/2021		1.7000		
Cobalt, total	ug/L	MW-18	03/28/2022		0.7000		
Cobalt, total	ug/L	MW-18	09/13/2022		7.2000		
Cobalt, total	ug/L	MW-18	03/23/2023		2.9000		

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



Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Cobalt, total	ug/L	MW-18	09/05/2023		2.2000		
Copper, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Copper, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Copper, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Copper, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Copper, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Copper, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Copper, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Copper, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Copper, total	ug/L	MW-18	09/14/2017		6.3000		
Copper, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Copper, total	ug/L	MW-18	09/10/2018		5.2000		
Copper, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Copper, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Copper, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Copper, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Copper, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Copper, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Copper, total	ug/L	MW-18	03/28/2022		6.7000		
Copper, total	ug/L	MW-18	09/13/2022		12.0000		
Copper, total	ug/L	MW-18	03/23/2023		9.9000		
Copper, total	ug/L	MW-18	09/05/2023		5.9000		
Lead, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Lead, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Lead, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Lead, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Lead, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Lead, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Lead, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Lead, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Lead, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Lead, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Lead, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Lead, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Lead, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Lead, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Lead, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Lead, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Lead, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Lead, total	ug/L	MW-18	03/28/2022	ND	4.0000		
Lead, total	ug/L	MW-18	09/13/2022	ND	4.0000		
Lead, total	ug/L	MW-18	03/23/2023	ND	4.0000		
Lead, total	ug/L	MW-18	09/05/2023	ND	4.0000		
Nickel, total	ug/L	MW-18	09/23/2014		5.0000		
Nickel, total	ug/L	MW-18	12/02/2014		5.4000		
Nickel, total	ug/L	MW-18	03/19/2015		6.3000		
Nickel, total	ug/L	MW-18	06/17/2015		10.3000		
Nickel, total	ug/L	MW-18	08/27/2015		6.8000		
Nickel, total	ug/L	MW-18	03/03/2016		12.7000		
Nickel, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Nickel, total	ug/L	MW-18	03/09/2017		5.3000		
Nickel, total	ug/L	MW-18	09/14/2017		16.1000		
Nickel, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-18	09/10/2018		4.4000		
Nickel, total	ug/L	MW-18	03/26/2019		7.2000		
Nickel, total	ug/L	MW-18	09/16/2019		4.7000		
Nickel, total	ug/L	MW-18	03/24/2020		4.4000		
Nickel, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Nickel, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-18	09/14/2021		10.7000		
Nickel, total	ug/L	MW-18	03/28/2022		8.4000		
Nickel, total	ug/L	MW-18	09/13/2022		11.3000		
Nickel, total	ug/L	MW-18	03/23/2023		23.8000		
Nickel, total	ug/L	MW-18	09/05/2023		14.0000		
Selenium, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Selenium, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Selenium, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Selenium, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Selenium, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Selenium, total	ug/L	MW-18	03/12/2018	ND	4.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Selenium, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Selenium, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-18	03/28/2022		5.1000		
Selenium, total	ug/L	MW-18	09/13/2022		8.7000		
Selenium, total	ug/L	MW-18	03/23/2023		16.2000		
Selenium, total	ug/L	MW-18	09/05/2023		8.0000		
Silver, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Silver, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Silver, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Silver, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Silver, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Silver, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Silver, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Silver, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Silver, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Silver, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Silver, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Silver, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Silver, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Silver, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Silver, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Silver, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Silver, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Silver, total	ug/L	MW-18	03/28/2022	ND	4.0000		
Silver, total	ug/L	MW-18	09/13/2022	ND	4.0000		
Silver, total	ug/L	MW-18	03/23/2023	ND	4.0000		
Silver, total	ug/L	MW-18	09/05/2023	ND	4.0000		
Thallium, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Thallium, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Thallium, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Thallium, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Thallium, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Thallium, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Thallium, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Thallium, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Thallium, total	ug/L	MW-18	03/26/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/16/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/24/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/02/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/08/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/14/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/28/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/13/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/23/2023	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/05/2023	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW-18	09/23/2014	ND	20.0000		
Vanadium, total	ug/L	MW-18	12/02/2014	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/19/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	06/17/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	08/27/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/03/2016	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/20/2016	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/09/2017	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/14/2017		30.7000		
Vanadium, total	ug/L	MW-18	03/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/26/2019	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/24/2020	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/14/2021	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/28/2022	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/13/2022	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/23/2023	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/05/2023	ND	20.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Zinc, total	ug/L	MW-18	09/23/2014		11.9000		
Zinc, total	ug/L	MW-18	12/02/2014		11.3000		
Zinc, total	ug/L	MW-18	03/19/2015	ND	8.0000		
Zinc, total	ug/L	MW-18	06/17/2015		23.7000		
Zinc, total	ug/L	MW-18	08/27/2015		13.5000		
Zinc, total	ug/L	MW-18	03/03/2016		18.8000		
Zinc, total	ug/L	MW-18	09/20/2016		8.7000		
Zinc, total	ug/L	MW-18	03/09/2017	ND	8.0000		
Zinc, total	ug/L	MW-18	09/14/2017		53.3000		
Zinc, total	ug/L	MW-18	03/12/2018	ND	8.0000		
Zinc, total	ug/L	MW-18	09/10/2018		27.3000		
Zinc, total	ug/L	MW-18	03/26/2019		13.7000		
Zinc, total	ug/L	MW-18	09/16/2019		20.6000		
Zinc, total	ug/L	MW-18	03/24/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	09/02/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	03/08/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	09/14/2021		34.6000		
Zinc, total	ug/L	MW-18	03/28/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	09/13/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	03/23/2023		51.2000		
Zinc, total	ug/L	MW-18	09/05/2023		48.1000		
Antimony, total	ug/L	MW-4A	09/23/2014	ND	2.0000		
Antimony, total	ug/L	MW-4A	12/02/2014	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/19/2015	ND	2.0000		
Antimony, total	ug/L	MW-4A	06/17/2015	ND	2.0000		
Antimony, total	ug/L	MW-4A	08/27/2015	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/03/2016	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/20/2016	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/09/2017	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/14/2017	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/10/2018	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/26/2019	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/16/2019	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/24/2020	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/02/2020	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/14/2021	ND	2.0000		
Arsenic, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Arsenic, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Arsenic, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Arsenic, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Barium, total	ug/L	MW-4A	09/23/2014		367.0000		
Barium, total	ug/L	MW-4A	12/02/2014		418.0000		
Barium, total	ug/L	MW-4A	03/19/2015		322.0000		
Barium, total	ug/L	MW-4A	06/17/2015		267.0000		
Barium, total	ug/L	MW-4A	08/27/2015		390.0000		
Barium, total	ug/L	MW-4A	03/03/2016		378.0000		
Barium, total	ug/L	MW-4A	09/20/2016		380.0000		
Barium, total	ug/L	MW-4A	03/09/2017		265.0000		
Barium, total	ug/L	MW-4A	09/14/2017		365.0000		
Barium, total	ug/L	MW-4A	03/12/2018		313.0000		
Barium, total	ug/L	MW-4A	09/10/2018		316.0000		
Barium, total	ug/L	MW-4A	03/26/2019		232.0000		
Barium, total	ug/L	MW-4A	09/16/2019		346.0000		
Barium, total	ug/L	MW-4A	03/24/2020		250.0000		
Barium, total	ug/L	MW-4A	09/02/2020		360.0000		
Barium, total	ug/L	MW-4A	03/08/2021		296.0000		
Barium, total	ug/L	MW-4A	09/14/2021		344.0000		
Beryllium, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Beryllium, total	ug/L	MW-4A	12/02/2014	ND	4.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Beryllium, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Beryllium, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Cadmium, total	ug/L	MW-4A	09/23/2014	ND	0.8000		
Cadmium, total	ug/L	MW-4A	12/02/2014	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/19/2015	ND	0.8000		
Cadmium, total	ug/L	MW-4A	06/17/2015	ND	0.8000		
Cadmium, total	ug/L	MW-4A	08/27/2015	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/03/2016	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/20/2016	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/09/2017	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/14/2017	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/26/2019	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/24/2020	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/14/2021	ND	0.8000		
Chromium, total	ug/L	MW-4A	09/23/2014	ND	8.0000		
Chromium, total	ug/L	MW-4A	12/02/2014	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/19/2015	ND	8.0000		
Chromium, total	ug/L	MW-4A	06/17/2015	ND	8.0000		
Chromium, total	ug/L	MW-4A	08/27/2015	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/03/2016	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/20/2016	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/14/2017	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/26/2019	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/24/2020	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/02/2020	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/14/2021	ND	8.0000		
Cobalt, total	ug/L	MW-4A	09/23/2014	ND	0.8000		
Cobalt, total	ug/L	MW-4A	12/02/2014	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/19/2015	ND	0.8000		
Cobalt, total	ug/L	MW-4A	06/17/2015	ND	0.8000		
Cobalt, total	ug/L	MW-4A	08/27/2015	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/03/2016	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/20/2016	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/09/2017	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/14/2017	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/12/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-4A	09/10/2018	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/26/2019	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/16/2019	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/24/2020	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/02/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-4A	03/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-4A	09/14/2021	ND	0.4000	0.8000	**
Copper, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Copper, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Copper, total	ug/L	MW-4A	03/19/2015		30.1000		*
Copper, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Copper, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Copper, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Copper, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Copper, total	ug/L	MW-4A	03/09/2017	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	
Copper, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Copper, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Copper, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Copper, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Copper, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Copper, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Copper, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Copper, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Copper, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Lead, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Lead, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Lead, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Lead, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Lead, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Lead, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Lead, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Lead, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Lead, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Lead, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Lead, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Lead, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Lead, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Lead, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Lead, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Lead, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Lead, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Nickel, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Nickel, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Nickel, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Selenium, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Selenium, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Selenium, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Silver, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Silver, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Silver, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Silver, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Silver, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Silver, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Silver, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Silver, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Silver, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Silver, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Silver, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Silver, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Silver, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Silver, total	ug/L	MW-4A	03/24/2020	ND	4.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Silver, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Silver, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Silver, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Thallium, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Thallium, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Thallium, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/26/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	09/16/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	03/24/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	09/02/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	03/08/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	09/14/2021	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW-4A	09/23/2014	ND	20.0000		
Vanadium, total	ug/L	MW-4A	12/02/2014	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/19/2015	ND	20.0000		
Vanadium, total	ug/L	MW-4A	06/17/2015	ND	20.0000		
Vanadium, total	ug/L	MW-4A	08/27/2015	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/03/2016	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/20/2016	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/09/2017	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/14/2017	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/26/2019	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/24/2020	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/14/2021	ND	20.0000		
Zinc, total	ug/L	MW-4A	09/23/2014	ND	8.0000		
Zinc, total	ug/L	MW-4A	12/02/2014	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/19/2015		14.7000		
Zinc, total	ug/L	MW-4A	06/17/2015	ND	8.0000		
Zinc, total	ug/L	MW-4A	08/27/2015	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/03/2016	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/20/2016	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/09/2017	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/14/2017	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/12/2018	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/10/2018		14.1000		
Zinc, total	ug/L	MW-4A	03/26/2019	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/16/2019	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	03/24/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	09/02/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	03/08/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	09/14/2021	ND	20.0000	8.0000	**

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

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	GU-2	03/06/2024		2.0000		5.5000
Arsenic, total	ug/L	GU-2	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	GU-2	03/06/2024		183.0000		623.3256
Beryllium, total	ug/L	GU-2	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	GU-2	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	GU-2	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	GU-2	03/06/2024		0.8000		4.1367
Copper, total	ug/L	GU-2	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	GU-2	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	GU-2	03/06/2024		18.9000	**	23.8000
Selenium, total	ug/L	GU-2	03/06/2024		168.0000	*	16.2000
Silver, total	ug/L	GU-2	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	GU-2	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	GU-2	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	GU-2	03/06/2024		691.0000	***	53.3000
Antimony, total	ug/L	GU-A	03/06/2024		5.6000	***	5.5000
Arsenic, total	ug/L	GU-A	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	GU-A	03/06/2024		25.8000		623.3256
Beryllium, total	ug/L	GU-A	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	GU-A	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	GU-A	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	GU-A	03/06/2024	ND	0.4000		4.1367
Copper, total	ug/L	GU-A	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	GU-A	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	GU-A	03/06/2024		36.9000	***	23.8000
Selenium, total	ug/L	GU-A	03/06/2024		19.6000	***	16.2000
Silver, total	ug/L	GU-A	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	GU-A	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	GU-A	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	GU-A	03/06/2024		877.0000	***	53.3000
Antimony, total	ug/L	GU-B	03/06/2024		7.8000	***	5.5000
Arsenic, total	ug/L	GU-B	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	GU-B	03/06/2024		77.8000		623.3256
Beryllium, total	ug/L	GU-B	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	GU-B	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	GU-B	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	GU-B	03/06/2024		1.7000		4.1367
Copper, total	ug/L	GU-B	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	GU-B	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	GU-B	03/06/2024		41.0000	*	23.8000
Selenium, total	ug/L	GU-B	03/06/2024		28.4000	*	16.2000
Silver, total	ug/L	GU-B	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	GU-B	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	GU-B	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	GU-B	03/06/2024		93.2000	***	53.3000
Antimony, total	ug/L	MW-21	03/06/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	MW-21	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	MW-21	03/06/2024		142.0000		623.3256
Beryllium, total	ug/L	MW-21	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-21	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	MW-21	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	MW-21	03/06/2024	ND	0.4000		4.1367
Copper, total	ug/L	MW-21	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	MW-21	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-21	03/06/2024	ND	4.0000		23.8000
Selenium, total	ug/L	MW-21	03/06/2024	ND	4.0000		16.2000
Silver, total	ug/L	MW-21	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-21	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-21	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	MW-21	03/06/2024	ND	20.0000		53.3000
Antimony, total	ug/L	MW-44	03/06/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	MW-44	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	MW-44	03/06/2024		795.0000	***	623.3256
Beryllium, total	ug/L	MW-44	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-44	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	MW-44	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	MW-44	03/06/2024		0.7000		4.1367
Copper, total	ug/L	MW-44	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	MW-44	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-44	03/06/2024	ND	4.0000		23.8000
Selenium, total	ug/L	MW-44	03/06/2024	ND	4.0000		16.2000
Silver, total	ug/L	MW-44	03/06/2024	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-44	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-44	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	MW-44	03/06/2024	ND	20.0000		53.3000
Antimony, total	ug/L	MW-45A	03/06/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	MW-45A	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	MW-45A	03/06/2024		89.3000		623.3256
Beryllium, total	ug/L	MW-45A	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-45A	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	MW-45A	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	MW-45A	03/06/2024	ND	0.4000		4.1367
Copper, total	ug/L	MW-45A	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	MW-45A	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-45A	03/06/2024		4.3000		23.8000
Selenium, total	ug/L	MW-45A	03/06/2024	ND	4.0000		16.2000
Silver, total	ug/L	MW-45A	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-45A	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-45A	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	MW-45A	03/06/2024	ND	20.0000		53.3000
Antimony, total	ug/L	TILE 1	03/06/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	TILE 1	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	TILE 1	03/06/2024		2250.0000	***	623.3256
Beryllium, total	ug/L	TILE 1	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	TILE 1	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	TILE 1	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	TILE 1	03/06/2024		2.5000		4.1367
Copper, total	ug/L	TILE 1	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	TILE 1	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	TILE 1	03/06/2024		43.5000	***	23.8000
Selenium, total	ug/L	TILE 1	03/06/2024	ND	4.0000		16.2000
Silver, total	ug/L	TILE 1	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	TILE 1	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	TILE 1	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	TILE 1	03/06/2024	ND	20.0000		53.3000
Antimony, total	ug/L	TILE 2	03/06/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	TILE 2	03/06/2024	ND	4.0000		48.5787
Barium, total	ug/L	TILE 2	03/06/2024		528.0000		623.3256
Beryllium, total	ug/L	TILE 2	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	TILE 2	03/06/2024	ND	0.8000		1.8000
Chromium, total	ug/L	TILE 2	03/06/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	TILE 2	03/06/2024		0.8000		4.1367
Copper, total	ug/L	TILE 2	03/06/2024	ND	4.0000		12.0000
Lead, total	ug/L	TILE 2	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	TILE 2	03/06/2024		5.8000		23.8000
Selenium, total	ug/L	TILE 2	03/06/2024	ND	4.0000		16.2000
Silver, total	ug/L	TILE 2	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	TILE 2	03/06/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	TILE 2	03/06/2024	ND	20.0000		30.7000
Zinc, total	ug/L	TILE 2	03/06/2024	ND	20.0000		53.3000

\* - 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	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, total	4	38	0.105	11	60	0.183
Arsenic, total	21	38	0.553	10	60	0.167
Barium, total	38	38	1.000	62	62	1.000
Beryllium, total	0	38	0.000	1	60	0.017
Cadmium, total	4	37	0.108	1	60	0.017
Chromium, total	1	38	0.026	1	60	0.017
Cobalt, total	19	38	0.500	38	60	0.633
Copper, total	6	37	0.162	2	60	0.033
Lead, total	0	38	0.000	1	60	0.017
Nickel, total	17	38	0.447	40	60	0.667
Selenium, total	5	38	0.132	8	60	0.133
Silver, total	0	38	0.000	0	60	0.000
Thallium, total	0	38	0.000	0	60	0.000
Vanadium, total	1	38	0.026	1	60	0.017
Zinc, total	15	38	0.395	18	60	0.300

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	4	38	0.105	0.329	0.502					2.326	normal	nonpar
Arsenic, total	21	38	0.553	1.119	0.255					2.326	normal	normal
Barium, total	38	38	1.000	0.454	0.674					2.326	normal	normal
Beryllium, total	0	38	0.000									nonpar
Cadmium, total	4	37	0.108	0.611	0.221					2.326	normal	nonpar
Chromium, total	1	38	0.026									nonpar
Cobalt, total	19	38	0.500	4.116	0.636					2.326	lognor	lognor
Copper, total	6	37	0.162	0.967	0.408					2.326	normal	nonpar
Lead, total	0	38	0.000									nonpar
Nickel, total	17	38	0.447	2.400	0.641					2.326	lognor	nonpar
Selenium, total	5	38	0.132	0.278	0.729					2.326	normal	nonpar
Silver, total	0	38	0.000									nonpar
Thallium, total	0	38	0.000									nonpar
Vanadium, total	1	38	0.026									nonpar
Zinc, total	15	38	0.395	1.720	0.296					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	4	38					5.5000	nonpar	0.99
Arsenic, total	ug/L	21	38	12.6868	14.5718	0.0100	2.4631	48.5787	normal	
Barium, total	ug/L	38	38	396.3684	92.1431	0.0100	2.4631	623.3256	normal	
Beryllium, total	ug/L	0	38					4.0000	nonpar	*** 0.99
Cadmium, total	ug/L	4	37					1.8000	nonpar	0.99
Chromium, total	ug/L	1	38					10.4000	nonpar	0.99
Cobalt, total	ug/L	19	38	0.2226	0.4861	0.0100	2.4631	4.1367	lognor	
Copper, total	ug/L	6	37					12.0000	nonpar	0.99
Lead, total	ug/L	0	38					4.0000	nonpar	*** 0.99
Nickel, total	ug/L	17	38					23.8000	nonpar	0.99
Selenium, total	ug/L	5	38					16.2000	nonpar	0.99
Silver, total	ug/L	0	38					4.0000	nonpar	*** 0.99
Thallium, total	ug/L	0	38					4.0000	nonpar	*** 0.99
Vanadium, total	ug/L	1	38					30.7000	nonpar	0.99
Zinc, total	ug/L	15	38					53.3000	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
Cadmium, total	ug/L	MW-18	03/23/2023	3.9000		09/23/2014-09/05/2023	21	0.5263
Copper, total	ug/L	MW-4A	03/19/2015	30.1000		09/23/2014-09/14/2021	17	0.5798

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

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

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

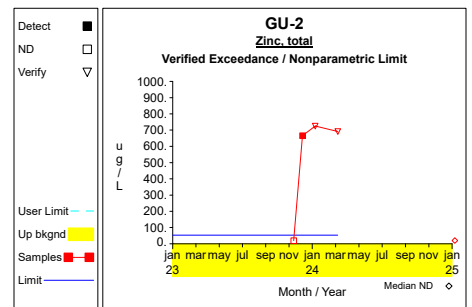
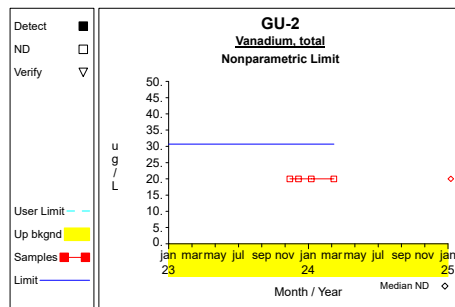
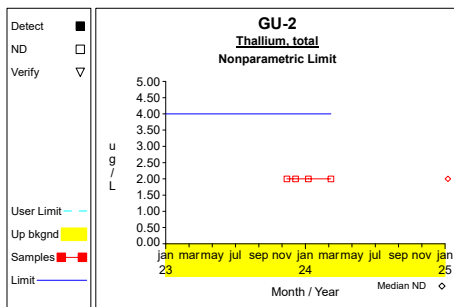
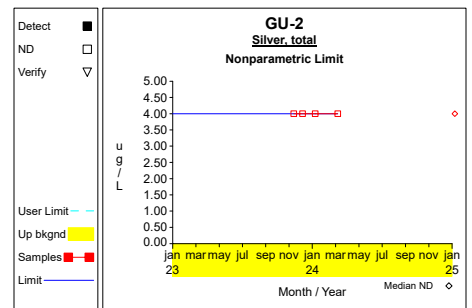
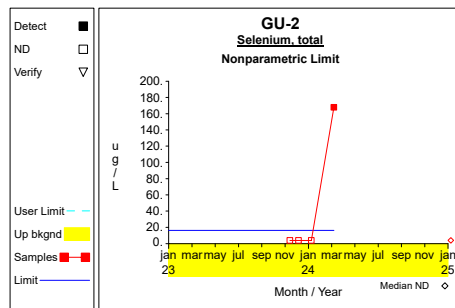
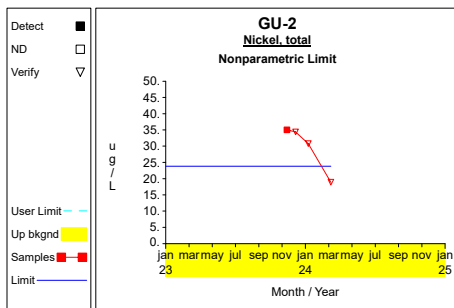
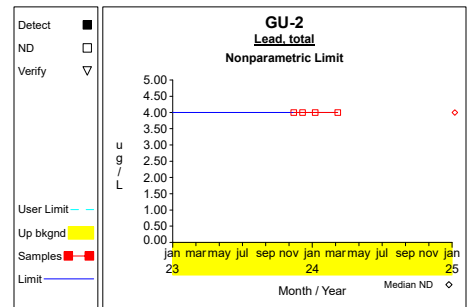
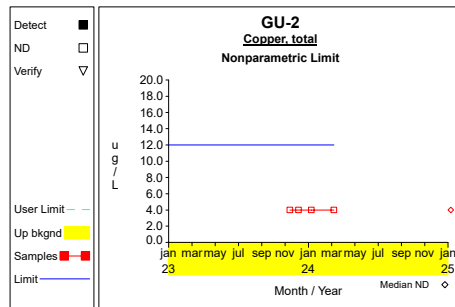
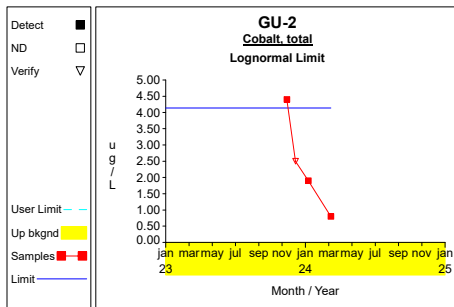
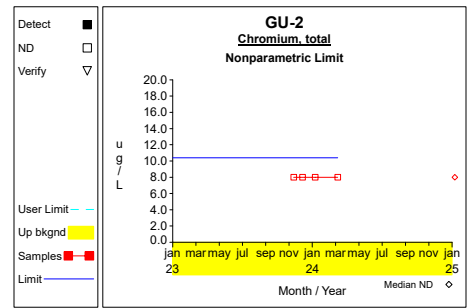
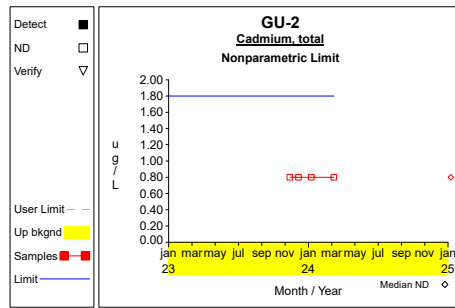
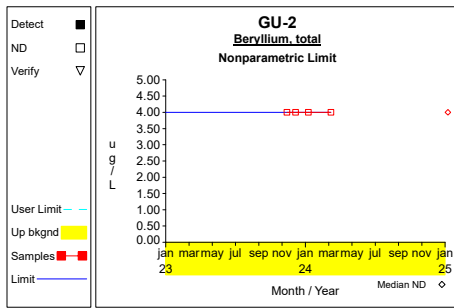
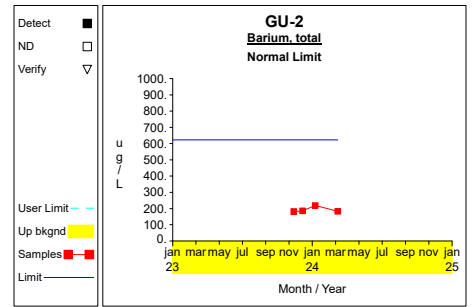
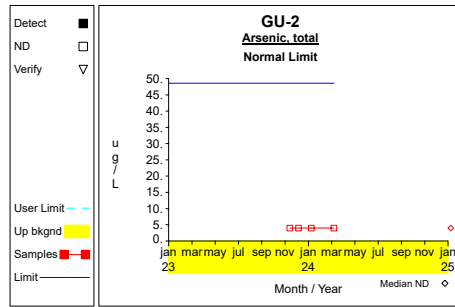
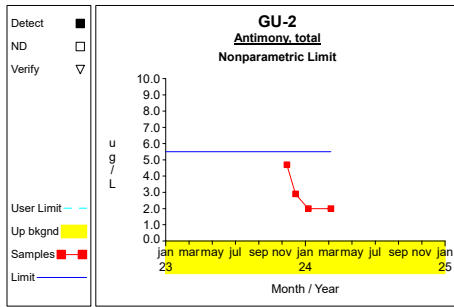
Table 8

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

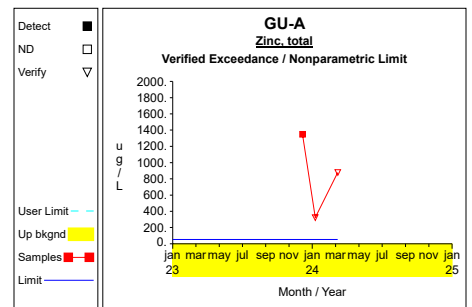
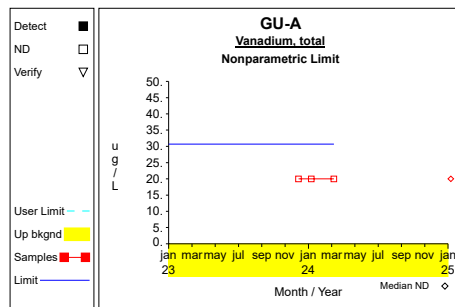
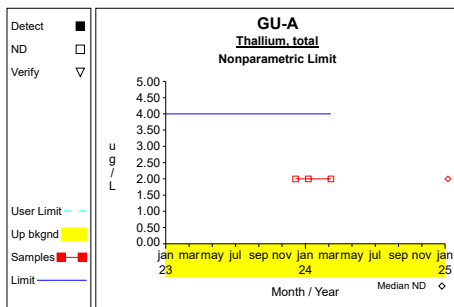
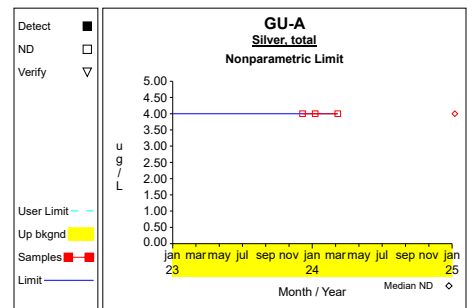
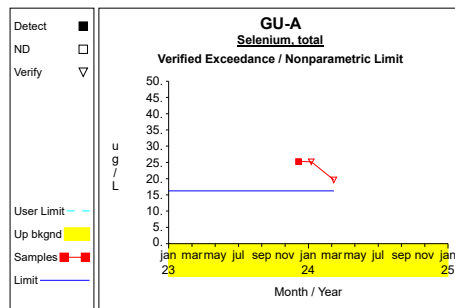
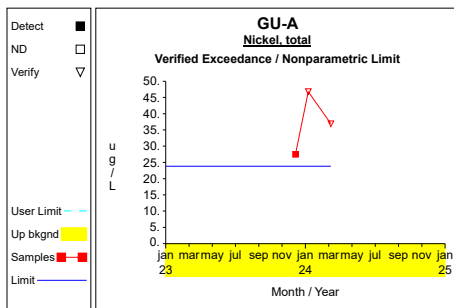
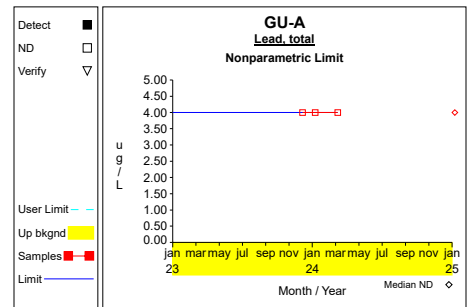
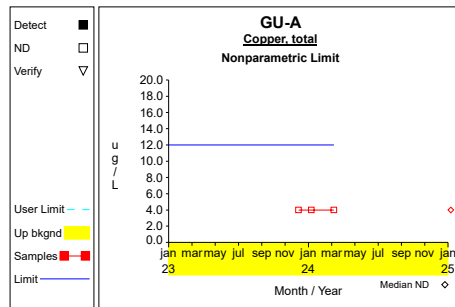
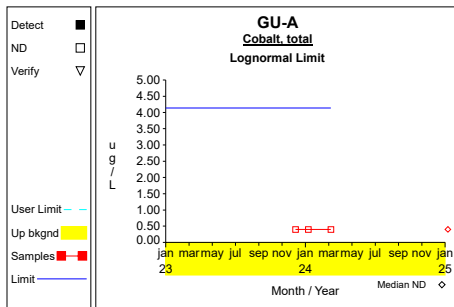
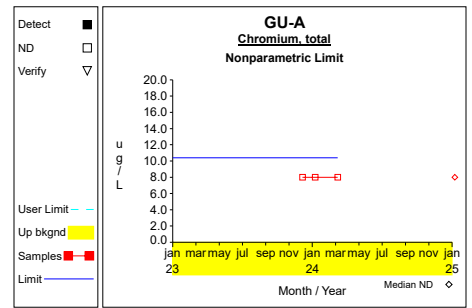
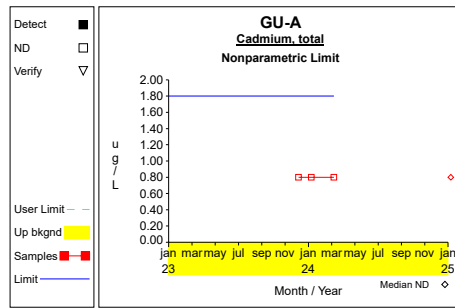
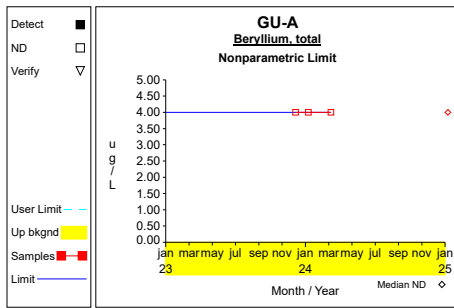
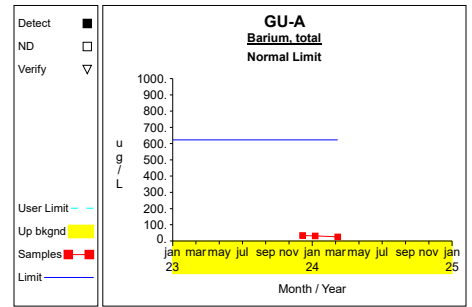
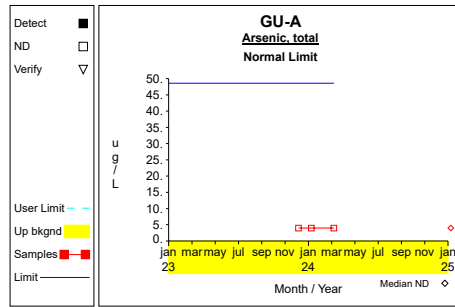
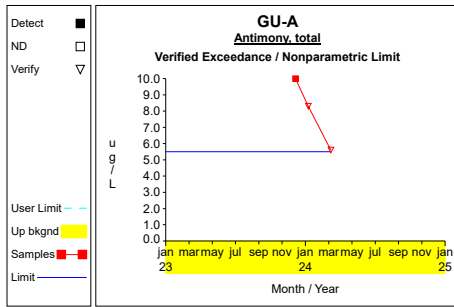
Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	GU-2	11/13/2023		35.0000	*	23.8000
Nickel, total	ug/L	GU-2	12/05/2023		34.4000	*	23.8000
Nickel, total	ug/L	GU-2	01/08/2024		30.8000	*	23.8000
Nickel, total	ug/L	GU-2	03/06/2024		18.9000		23.8000
Selenium, total	ug/L	GU-2	11/13/2023	ND	4.0000		16.2000
Selenium, total	ug/L	GU-2	12/05/2023	ND	4.0000		16.2000
Selenium, total	ug/L	GU-2	01/08/2024	ND	4.0000		16.2000
Selenium, total	ug/L	GU-2	03/06/2024		168.0000	*	16.2000
Zinc, total	ug/L	GU-2	11/13/2023	ND	20.0000		53.3000
Zinc, total	ug/L	GU-2	12/05/2023		666.0000	*	53.3000
Zinc, total	ug/L	GU-2	01/08/2024		725.0000	*	53.3000
Zinc, total	ug/L	GU-2	03/06/2024		691.0000	*	53.3000
Antimony, total	ug/L	GU-A	12/05/2023		10.0000	*	5.5000
Antimony, total	ug/L	GU-A	01/08/2024		8.3000	*	5.5000
Antimony, total	ug/L	GU-A	03/06/2024		5.6000	*	5.5000
Nickel, total	ug/L	GU-A	12/05/2023		27.5000	*	23.8000
Nickel, total	ug/L	GU-A	01/08/2024		46.8000	*	23.8000
Nickel, total	ug/L	GU-A	03/06/2024		36.9000	*	23.8000
Selenium, total	ug/L	GU-A	12/05/2023		25.3000	*	16.2000
Selenium, total	ug/L	GU-A	01/08/2024		25.2000	*	16.2000
Selenium, total	ug/L	GU-A	03/06/2024		19.6000	*	16.2000
Zinc, total	ug/L	GU-A	12/05/2023		1350.0000	*	53.3000
Zinc, total	ug/L	GU-A	01/08/2024		323.0000	*	53.3000
Zinc, total	ug/L	GU-A	03/06/2024		877.0000	*	53.3000
Antimony, total	ug/L	GU-B	11/13/2023		7.8000	*	5.5000
Antimony, total	ug/L	GU-B	12/05/2023		6.9000	*	5.5000
Antimony, total	ug/L	GU-B	01/08/2024		5.7000	*	5.5000
Antimony, total	ug/L	GU-B	03/06/2024		7.8000	*	5.5000
Nickel, total	ug/L	GU-B	11/13/2023		20.7000		23.8000
Nickel, total	ug/L	GU-B	12/05/2023		15.0000		23.8000
Nickel, total	ug/L	GU-B	01/08/2024		17.6000		23.8000
Nickel, total	ug/L	GU-B	03/06/2024		41.0000	*	23.8000
Selenium, total	ug/L	GU-B	11/13/2023		8.8000		16.2000
Selenium, total	ug/L	GU-B	12/05/2023		6.9000		16.2000
Selenium, total	ug/L	GU-B	01/08/2024		6.9000		16.2000
Selenium, total	ug/L	GU-B	03/06/2024		28.4000	*	16.2000
Zinc, total	ug/L	GU-B	11/13/2023	ND	20.0000		53.3000
Zinc, total	ug/L	GU-B	12/05/2023		513.0000	*	53.3000
Zinc, total	ug/L	GU-B	01/08/2024		167.0000	*	53.3000
Zinc, total	ug/L	GU-B	03/06/2024		93.2000	*	53.3000
Barium, total	ug/L	MW-44	07/12/2023		624.0000	*	623.3256
Barium, total	ug/L	MW-44	09/05/2023		708.0000	*	623.3256
Barium, total	ug/L	MW-44	11/28/2023		803.0000	*	623.3256
Barium, total	ug/L	MW-44	03/06/2024		795.0000	*	623.3256
Barium, total	ug/L	TILE 1	06/05/2019		1010.0000	*	623.3256
Barium, total	ug/L	TILE 1	07/17/2019		1580.0000	*	623.3256
Barium, total	ug/L	TILE 1	09/16/2019		1350.0000	*	623.3256
Barium, total	ug/L	TILE 1	03/24/2020		754.0000	*	623.3256
Barium, total	ug/L	TILE 1	09/02/2020		2210.0000	*	623.3256
Barium, total	ug/L	TILE 1	03/08/2021		1060.0000	*	623.3256
Barium, total	ug/L	TILE 1	09/14/2021		1940.0000	*	623.3256
Barium, total	ug/L	TILE 1	03/28/2022		774.0000	*	623.3256
Barium, total	ug/L	TILE 1	09/13/2022		2660.0000	*	623.3256
Barium, total	ug/L	TILE 1	03/23/2023		953.0000	*	623.3256
Barium, total	ug/L	TILE 1	09/05/2023		2510.0000	*	623.3256
Barium, total	ug/L	TILE 1	03/06/2024		2250.0000	*	623.3256
Nickel, total	ug/L	TILE 1	06/05/2019		13.4000		23.8000
Nickel, total	ug/L	TILE 1	09/16/2019		21.2000		23.8000
Nickel, total	ug/L	TILE 1	03/24/2020		9.8000		23.8000
Nickel, total	ug/L	TILE 1	09/02/2020		35.8000	*	23.8000
Nickel, total	ug/L	TILE 1	03/08/2021		20.8000		23.8000
Nickel, total	ug/L	TILE 1	09/14/2021		37.1000	*	23.8000
Nickel, total	ug/L	TILE 1	03/28/2022		14.0000		23.8000
Nickel, total	ug/L	TILE 1	09/13/2022		46.1000	*	23.8000
Nickel, total	ug/L	TILE 1	03/23/2023		13.4000		23.8000
Nickel, total	ug/L	TILE 1	09/05/2023		43.6000	*	23.8000
Nickel, total	ug/L	TILE 1	03/06/2024		43.5000	*	23.8000

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

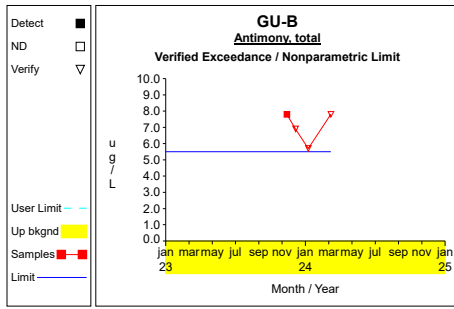
# Up vs. Down Prediction Limits



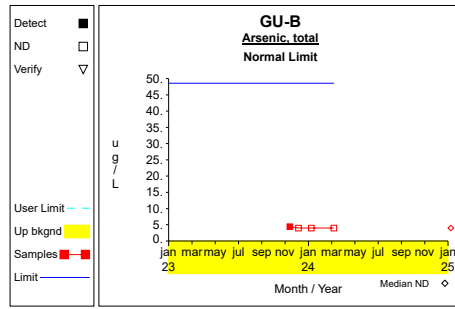
# Up vs. Down Prediction Limits



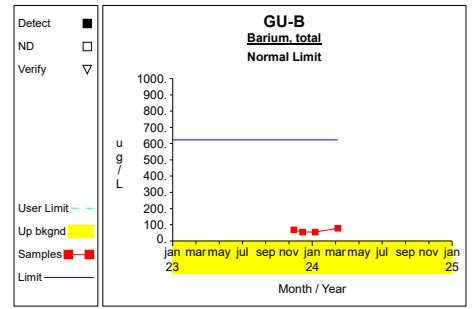
# Up vs. Down Prediction Limits



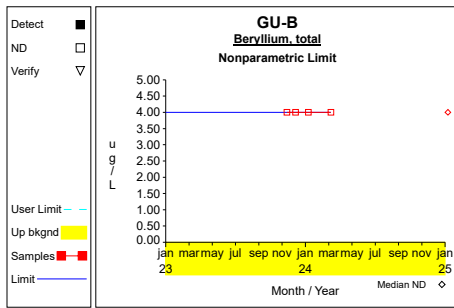
Graph 31



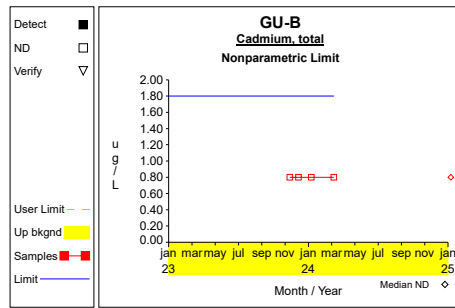
Graph 32



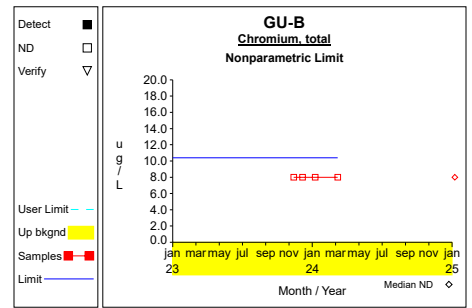
Graph 33



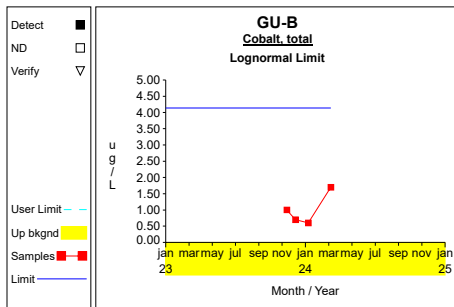
Graph 34



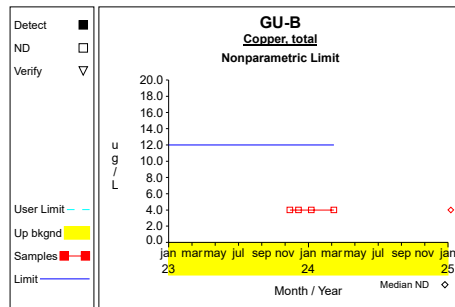
Graph 35



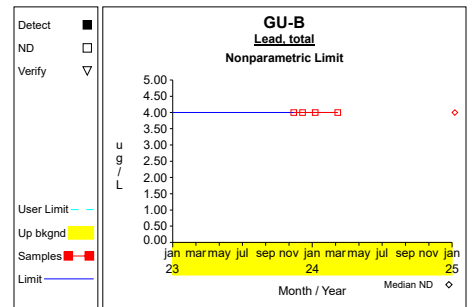
Graph 36



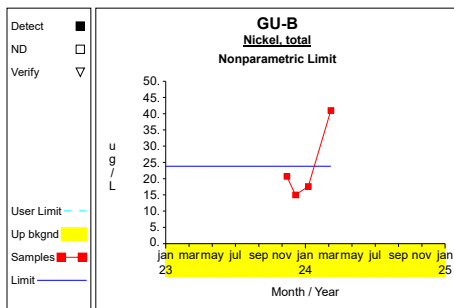
Graph 37



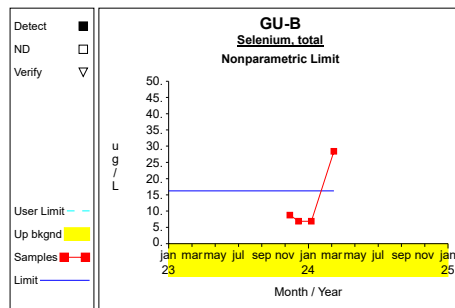
Graph 38



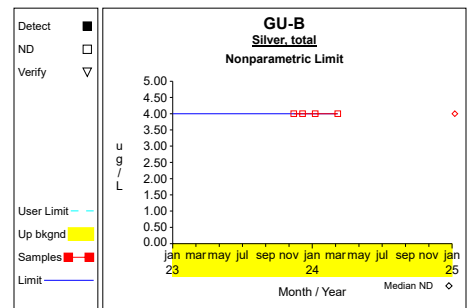
Graph 39



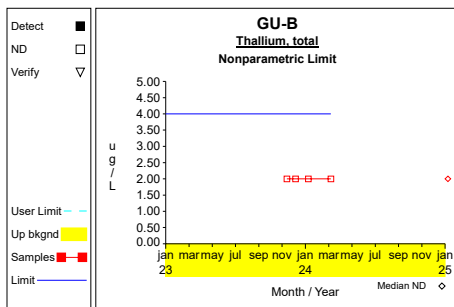
Graph 40



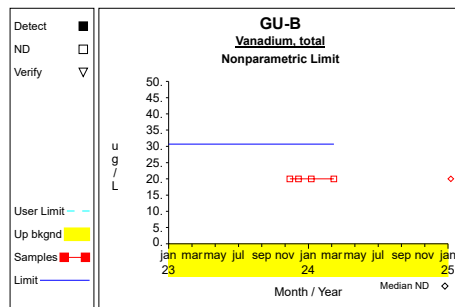
Graph 41



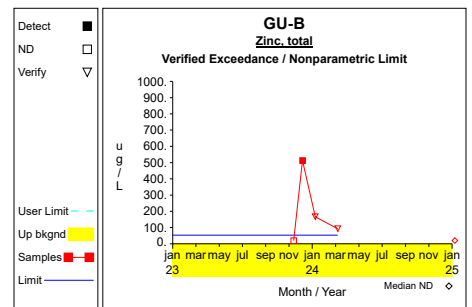
Graph 42



Graph 43



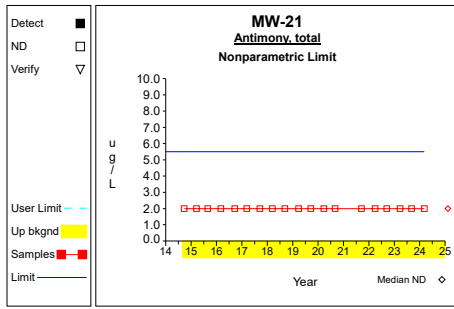
Graph 44



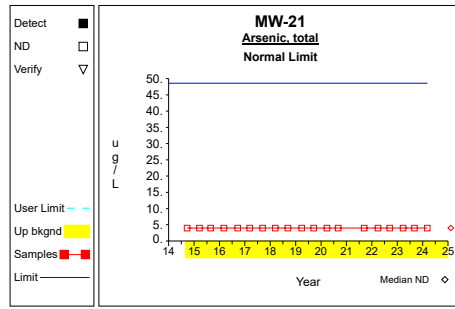
Graph 45



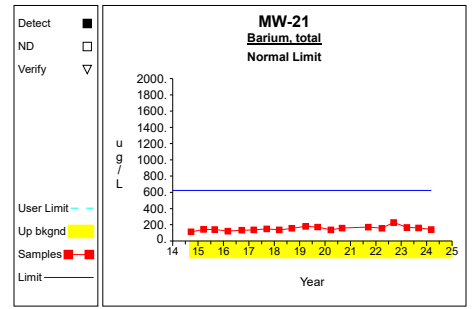
# Up vs. Down Prediction Limits



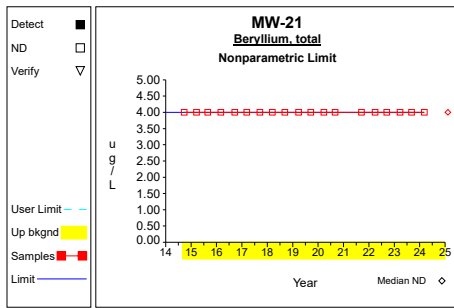
Graph 46



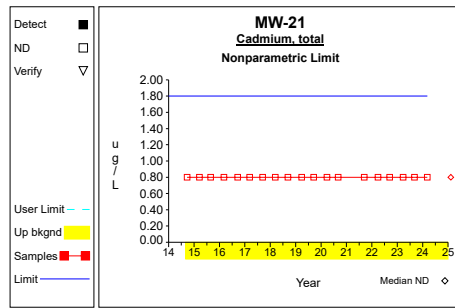
Graph 47



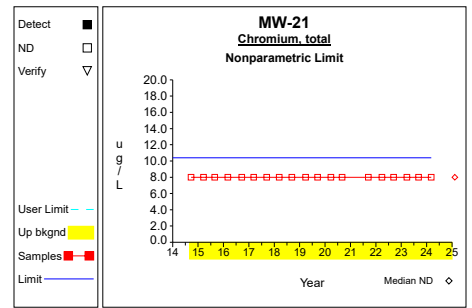
Graph 48



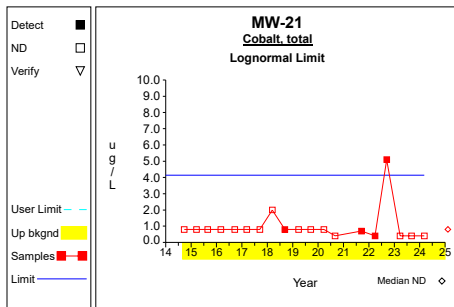
Graph 49



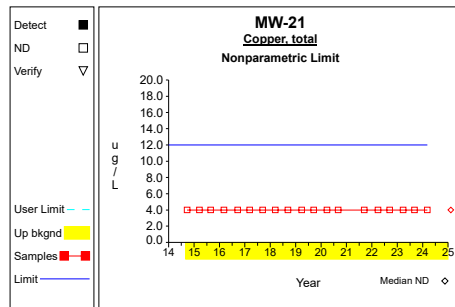
Graph 50



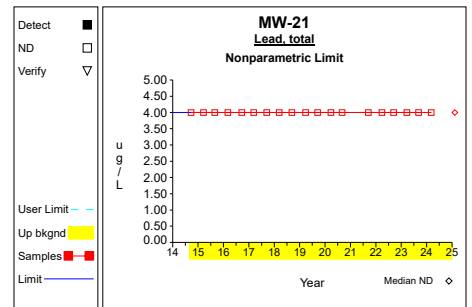
Graph 51



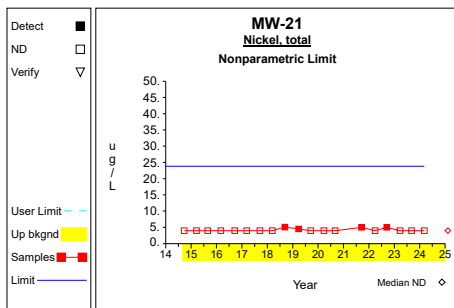
Graph 52



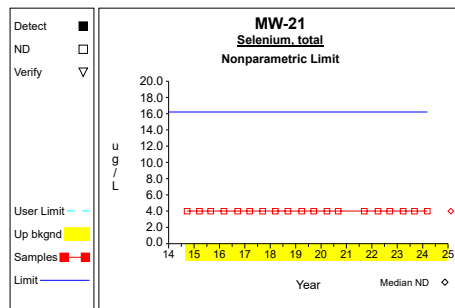
Graph 53



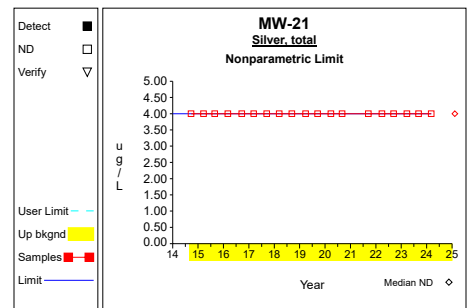
Graph 54



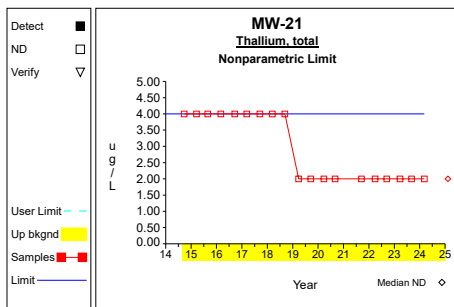
Graph 55



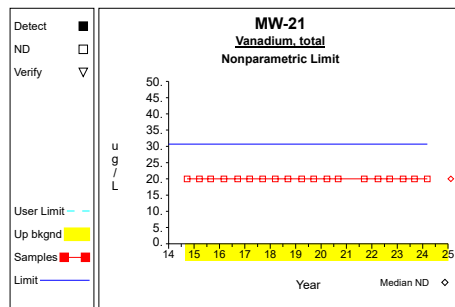
Graph 56



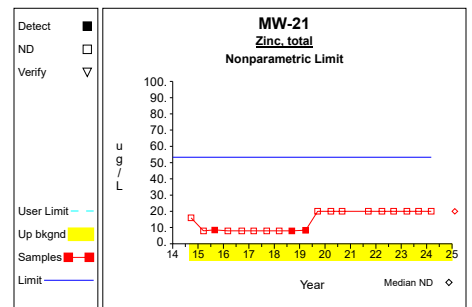
Graph 57



Graph 58

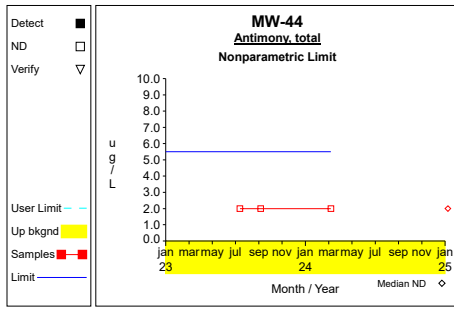


Graph 59

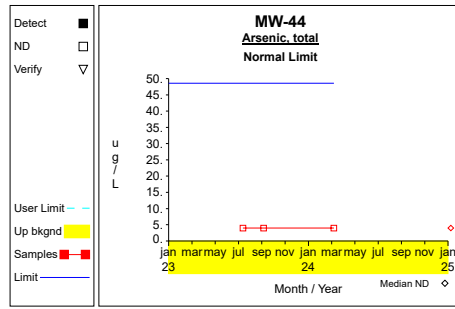


Graph 60

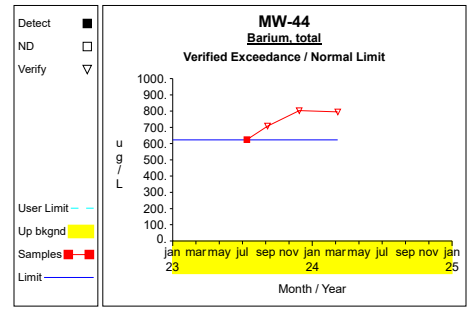
# Up vs. Down Prediction Limits



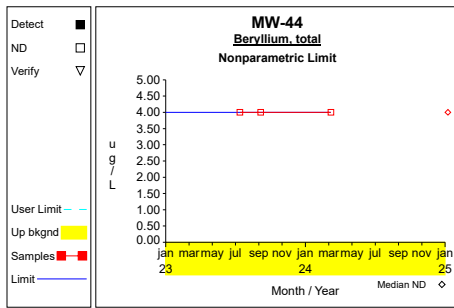
Graph 61



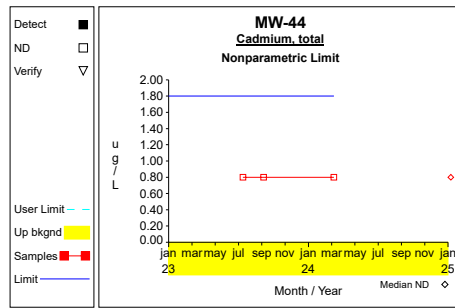
Graph 62



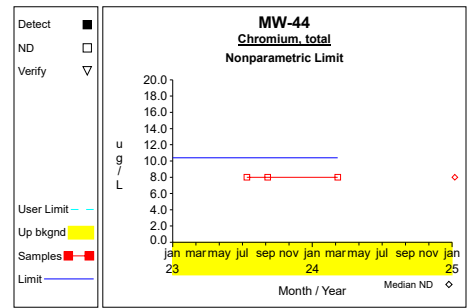
Graph 63



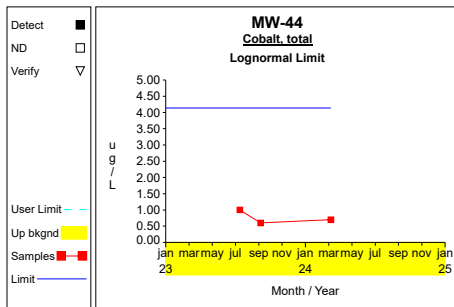
Graph 64



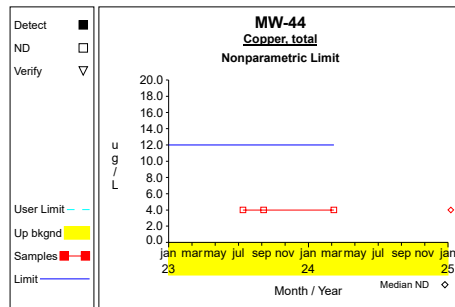
Graph 65



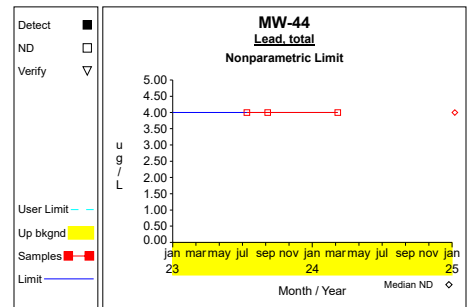
Graph 66



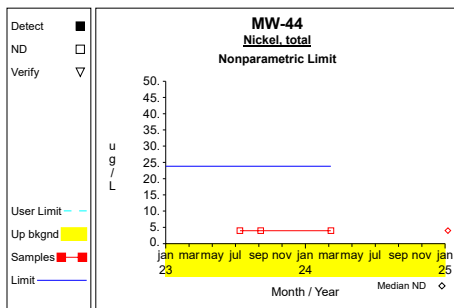
Graph 67



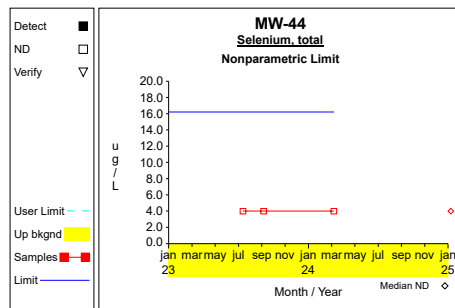
Graph 68



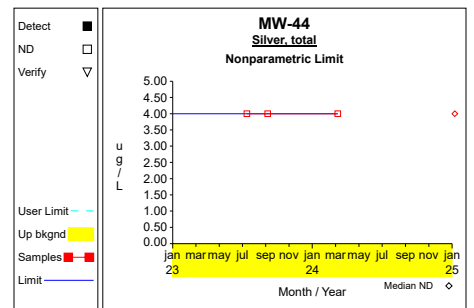
Graph 69



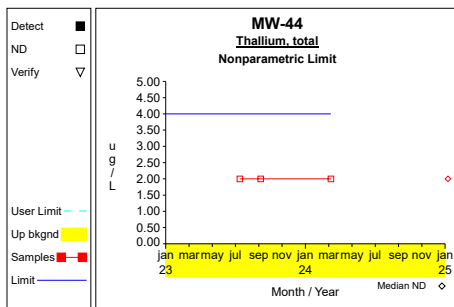
Graph 70



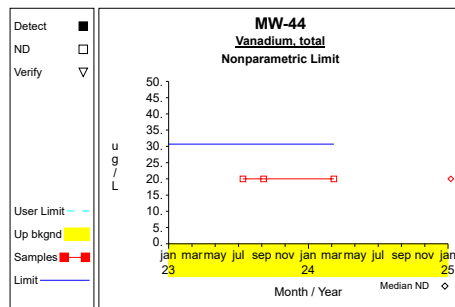
Graph 71



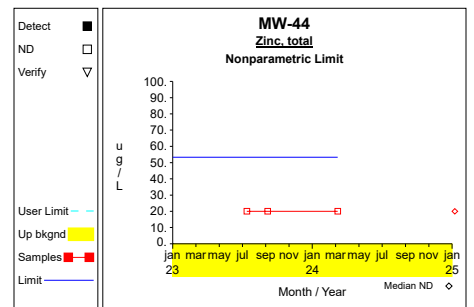
Graph 72



Graph 73

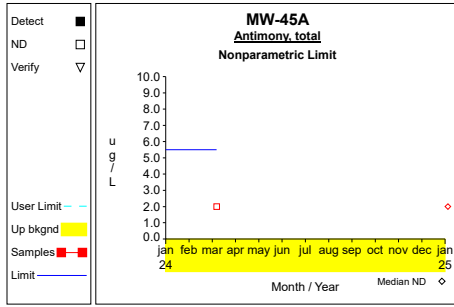


Graph 74

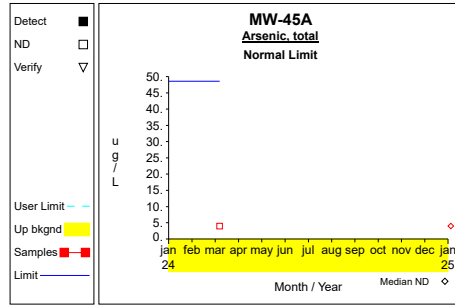


Graph 75

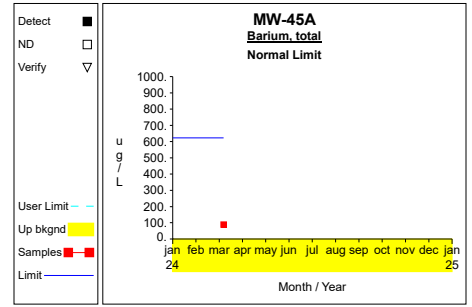
# Up vs. Down Prediction Limits



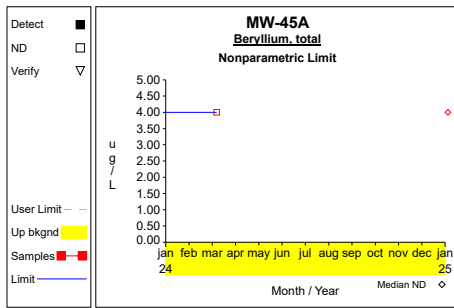
Graph 76



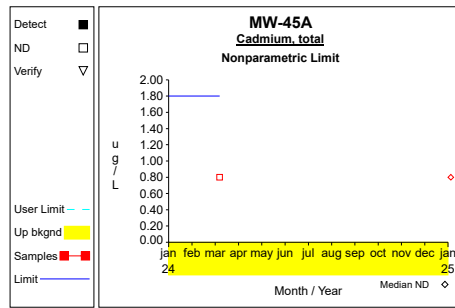
Graph 77



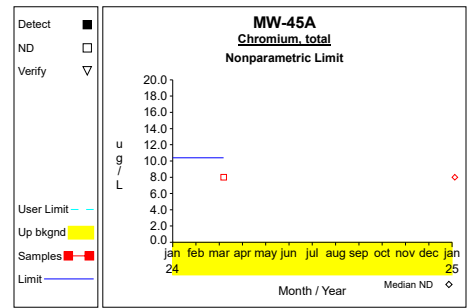
Graph 78



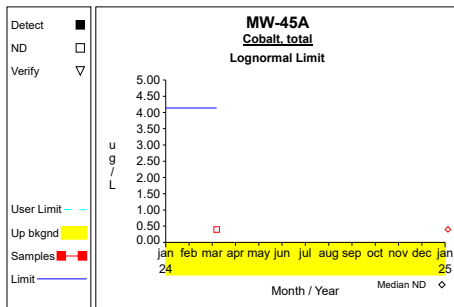
Graph 79



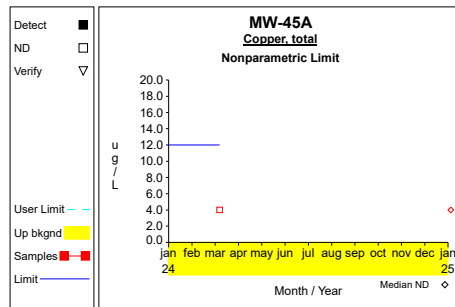
Graph 80



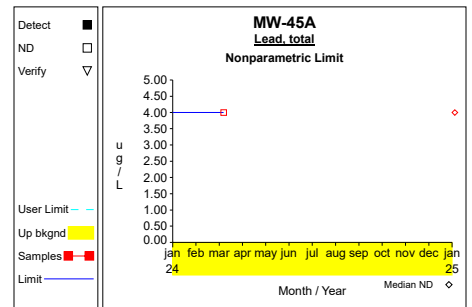
Graph 81



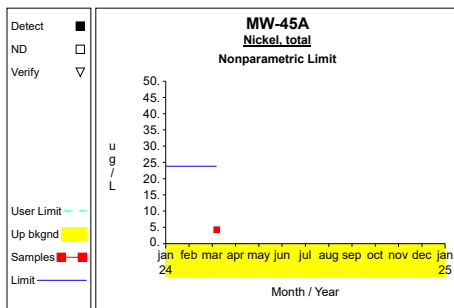
Graph 82



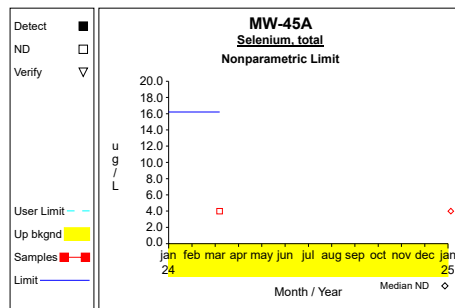
Graph 83



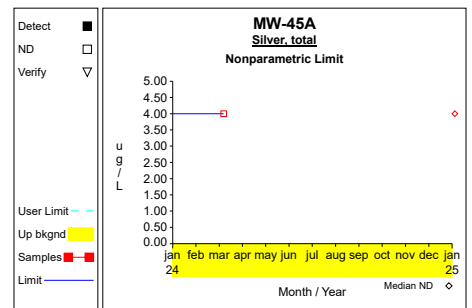
Graph 84



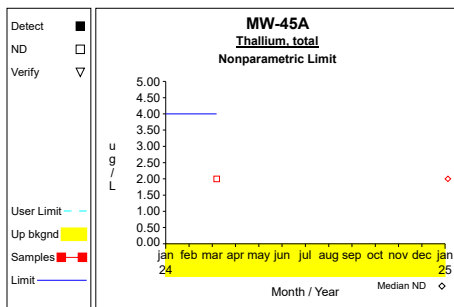
Graph 85



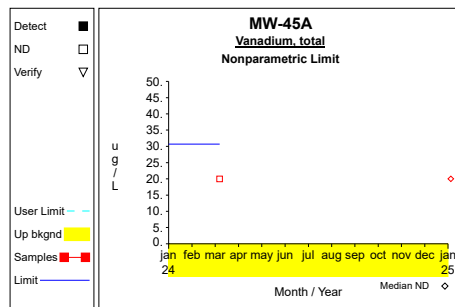
Graph 86



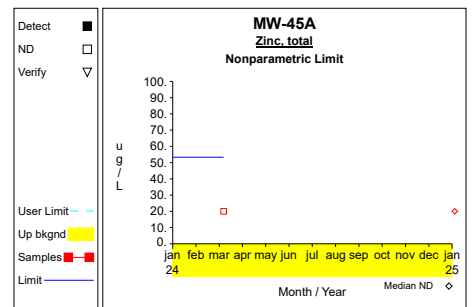
Graph 87



Graph 88

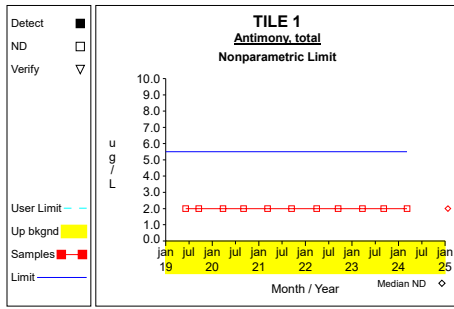


Graph 89

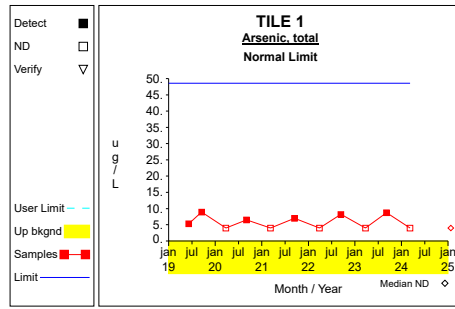


Graph 90

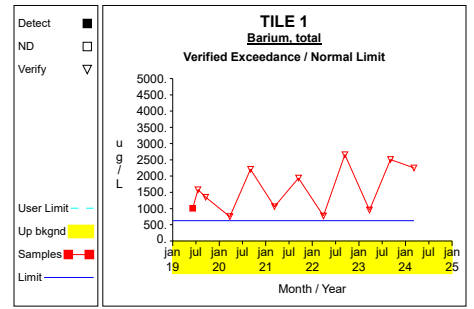
# Up vs. Down Prediction Limits



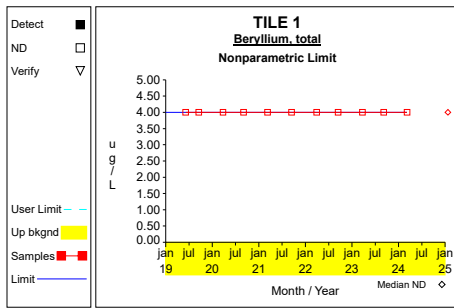
Graph 91



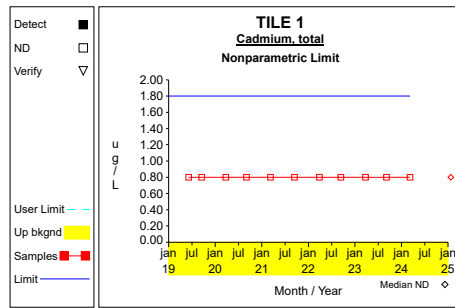
Graph 92



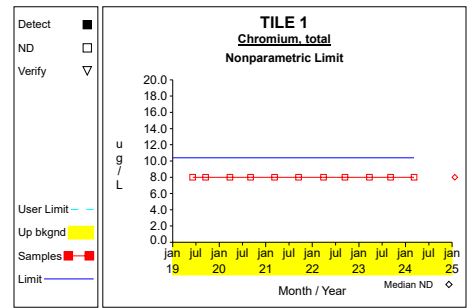
Graph 93



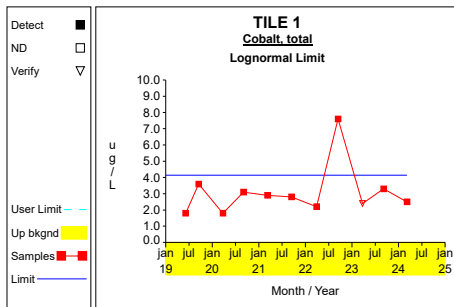
Graph 94



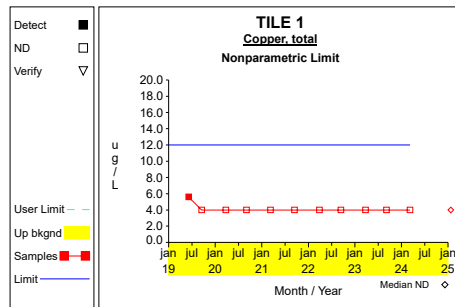
Graph 95



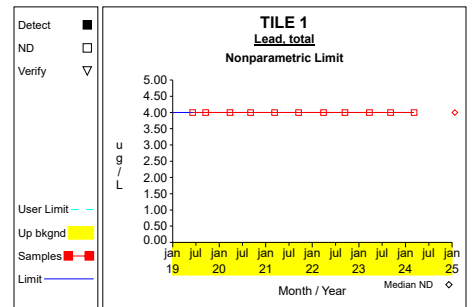
Graph 96



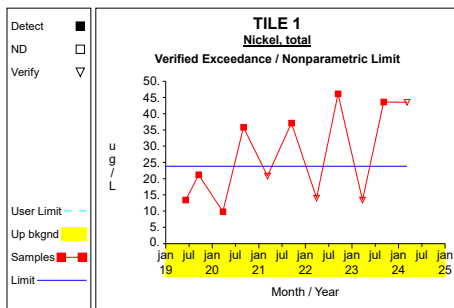
Graph 97



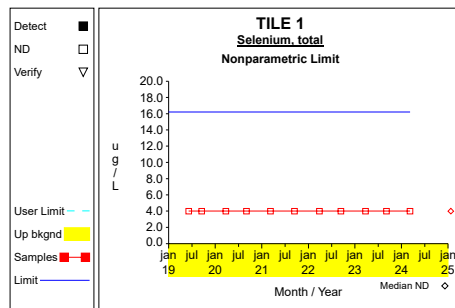
Graph 98



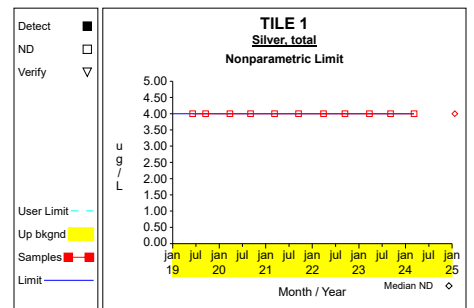
Graph 99



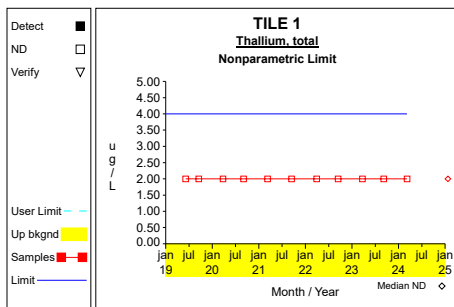
Graph 100



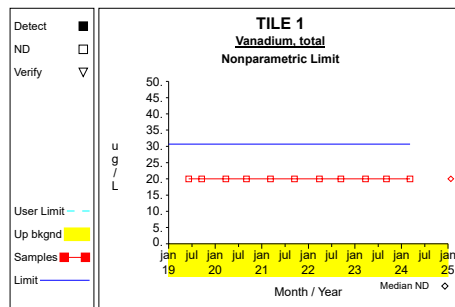
Graph 101



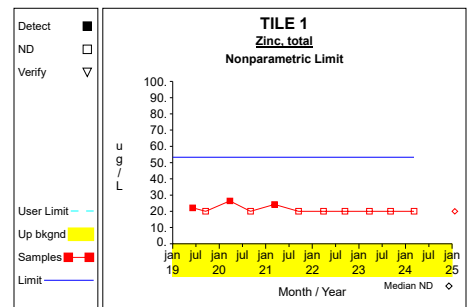
Graph 102



Graph 103

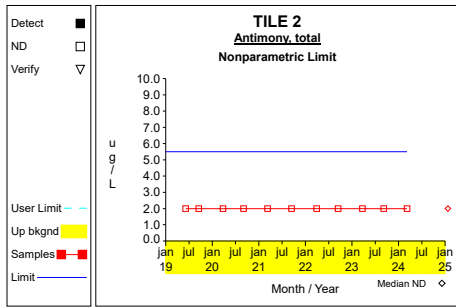


Graph 104

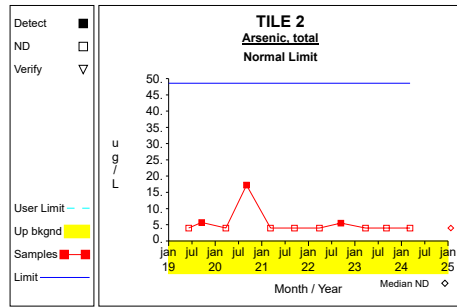


Graph 105

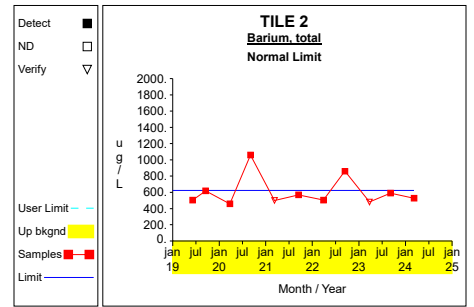
# Up vs. Down Prediction Limits



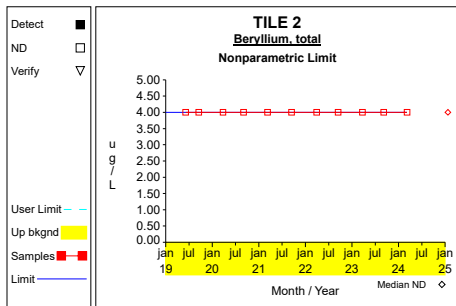
Graph 106



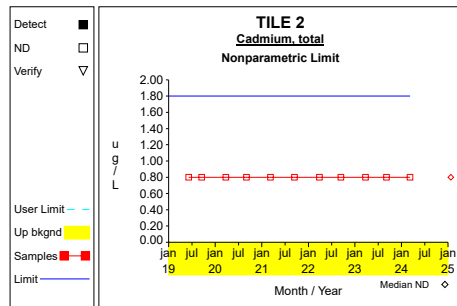
Graph 107



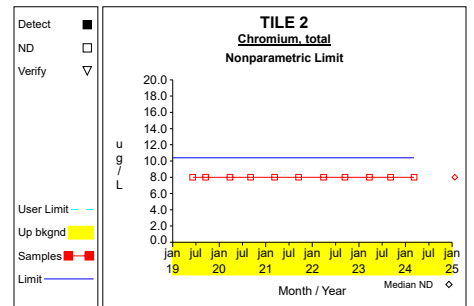
Graph 108



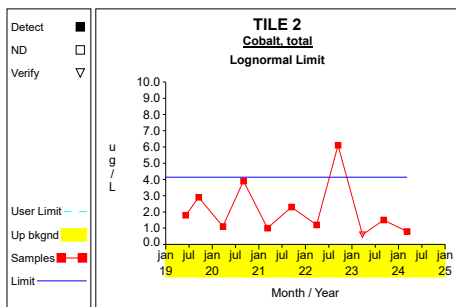
Graph 109



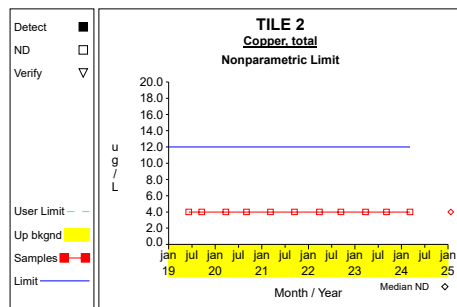
Graph 110



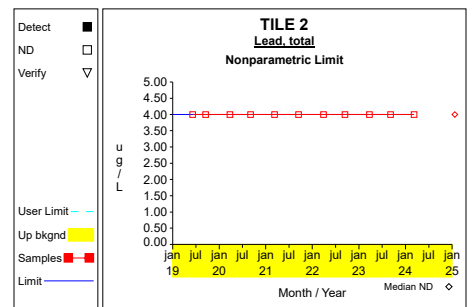
Graph 111



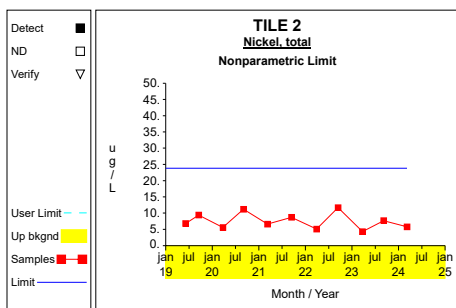
Graph 112



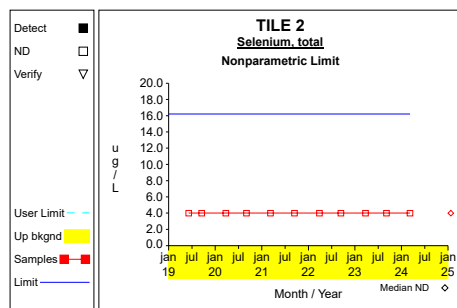
Graph 113



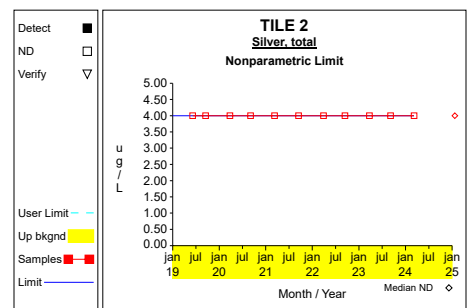
Graph 114



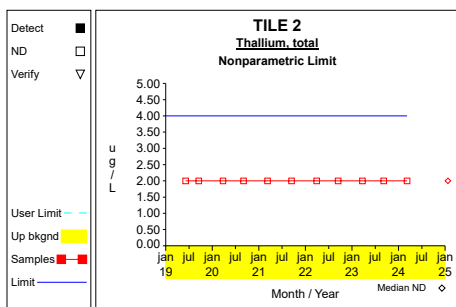
Graph 115



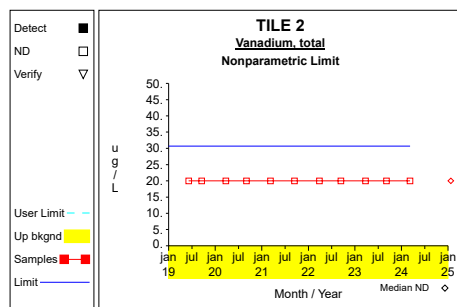
Graph 116



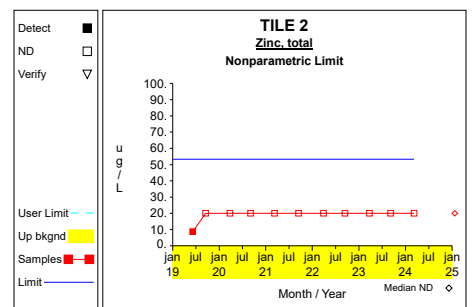
Graph 117



Graph 118

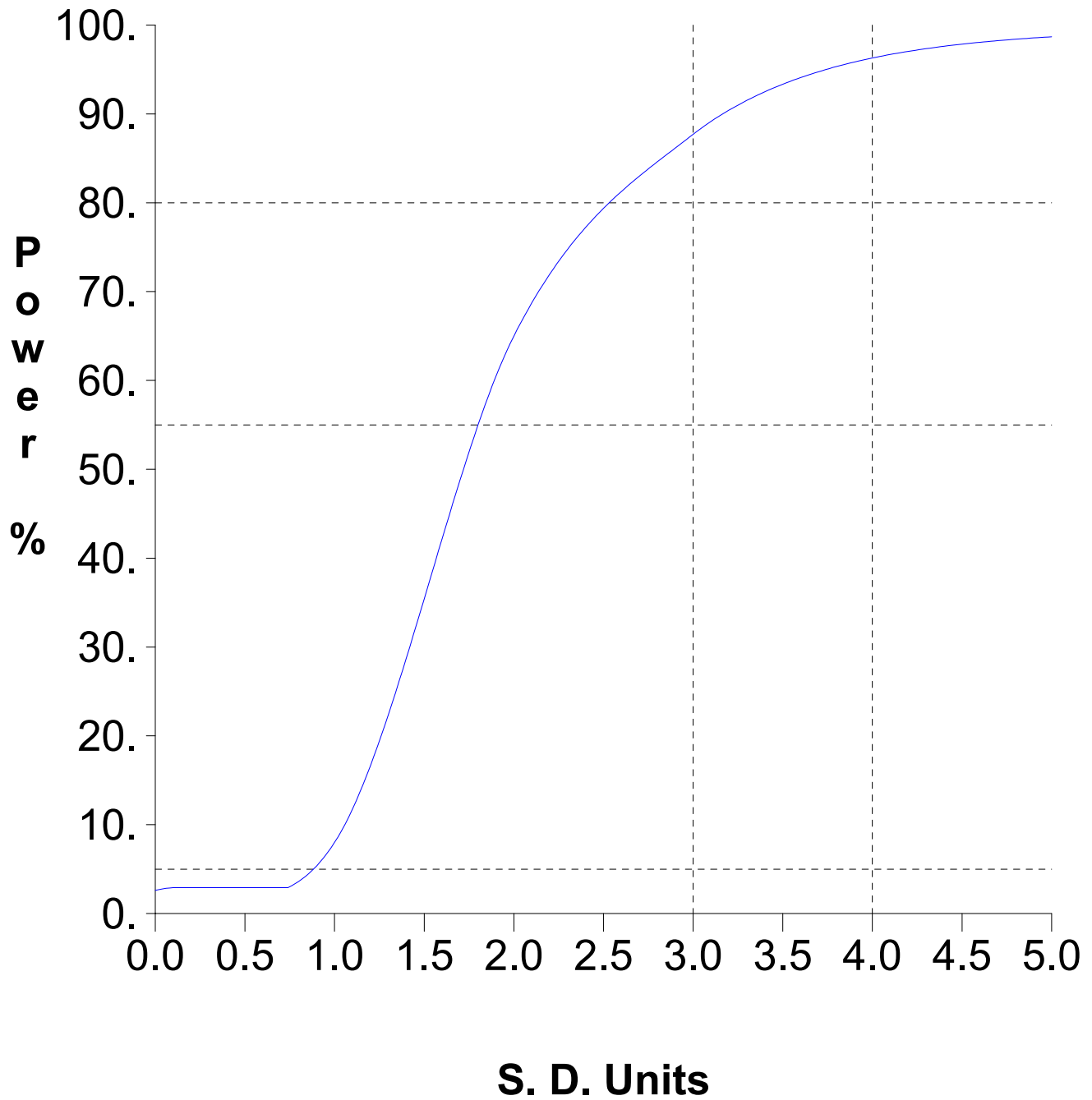


Graph 119



Graph 120

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



**Attachment C**

Assessment Statistics for Verified Trace Metals  
Shallow Ground Water

Table 1

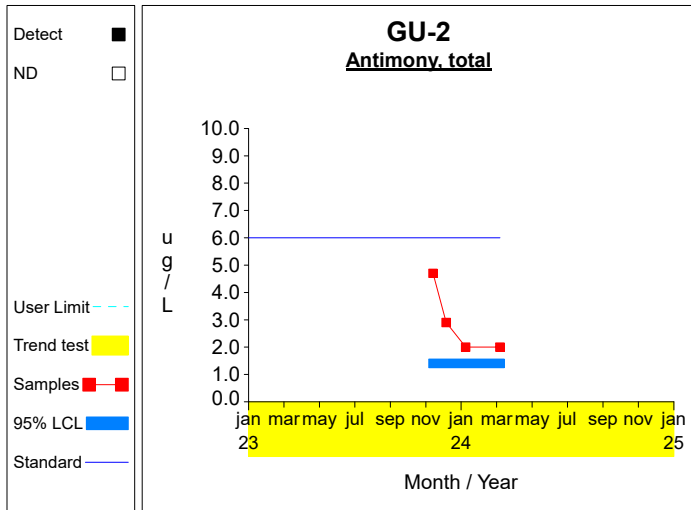
**Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard**

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, total	ug/L	GU-2	4	2.900	1.273	1.176	1.403	4.397	6.000		
Barium, total	ug/L	GU-2	4	192.500	17.748	1.176	171.623	213.377	2000.000		
Cobalt, total	ug/L	GU-2	4	2.400	1.508	1.176	0.626	4.174	2.100	dec	
Nickel, total	ug/L	GU-2	4	29.775	7.483	1.176	20.972	38.578	100.000	dec	
Selenium, total	ug/L	GU-2	4	43.500	83.000	1.176	0.000	141.132	50.000		
Zinc, total	ug/L	GU-2	4	523.000	342.854	1.176	119.705	926.295	2000.000		
Antimony, total	ug/L	GU-A	3								*
Barium, total	ug/L	GU-A	3								*
Cobalt, total	ug/L	GU-A	3								*
Nickel, total	ug/L	GU-A	3								*
Selenium, total	ug/L	GU-A	3								*
Zinc, total	ug/L	GU-A	3								*
Antimony, total	ug/L	GU-B	4	7.050	0.995	1.176	5.880	8.220	6.000		
Barium, total	ug/L	GU-B	4	64.200	10.970	1.176	51.296	77.104	2000.000		
Cobalt, total	ug/L	GU-B	4	1.000	0.497	1.176	0.416	1.584	2.100		
Nickel, total	ug/L	GU-B	4	23.575	11.848	1.176	9.638	37.512	100.000		
Selenium, total	ug/L	GU-B	4	12.750	10.472	1.176	0.432	25.068	50.000		
Zinc, total	ug/L	GU-B	4	195.800	220.978	1.176	0.000	455.734	2000.000		
Antimony, total	ug/L	MW-44	3								*
Barium, total	ug/L	MW-44	4	732.500	84.161	1.176	633.503	831.497	2000.000		
Cobalt, total	ug/L	MW-44	3								*
Nickel, total	ug/L	MW-44	3								*
Selenium, total	ug/L	MW-44	3								*
Zinc, total	ug/L	MW-44	3								*
Antimony, total	ug/L	TILE 1	4	1.000	0.000	1.176	1.000	1.000	6.000		
Barium, total	ug/L	TILE 1	4	2093.250	778.808	1.176	1177.147	3009.353	2000.000		
Cobalt, total	ug/L	TILE 1	4	3.950	2.466	1.176	1.049	6.851	2.100		
Nickel, total	ug/L	TILE 1	4	36.650	15.547	1.176	18.363	54.937	100.000		
Selenium, total	ug/L	TILE 1	4	2.000	0.000	1.176	2.000	2.000	50.000		
Zinc, total	ug/L	TILE 1	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Antimony, total	ug/L	TILE 2	4	1.000	0.000	1.176	1.000	1.000	6.000		
Barium, total	ug/L	TILE 2	4	614.750	169.484	1.176	415.388	814.112	2000.000		
Cobalt, total	ug/L	TILE 2	4	2.250	2.596	1.176	0.000	5.303	2.100		
Nickel, total	ug/L	TILE 2	4	7.375	3.201	1.176	3.609	11.141	100.000		
Selenium, total	ug/L	TILE 2	4	2.000	0.000	1.176	2.000	2.000	50.000		
Zinc, total	ug/L	TILE 2	4	10.000	0.000	1.176	10.000	10.000	2000.000		

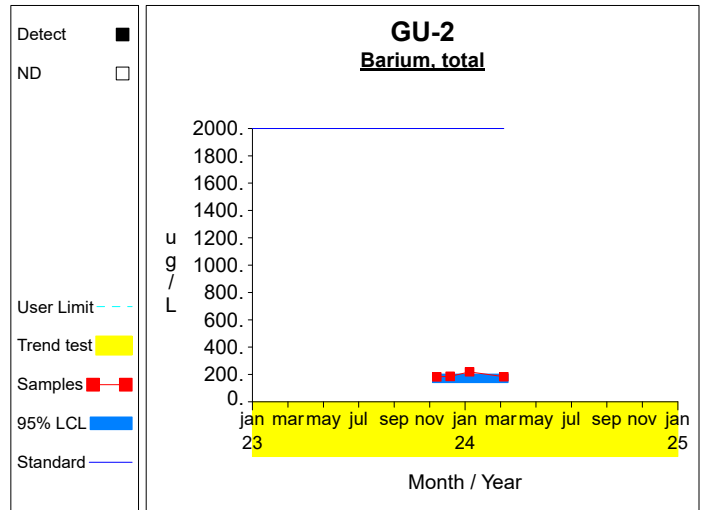
\* - Insufficient Data  
 \*\* - Significant Exceedance  
 LCL = Lower Confidence Limit  
 UCL = Upper Confidence Limit



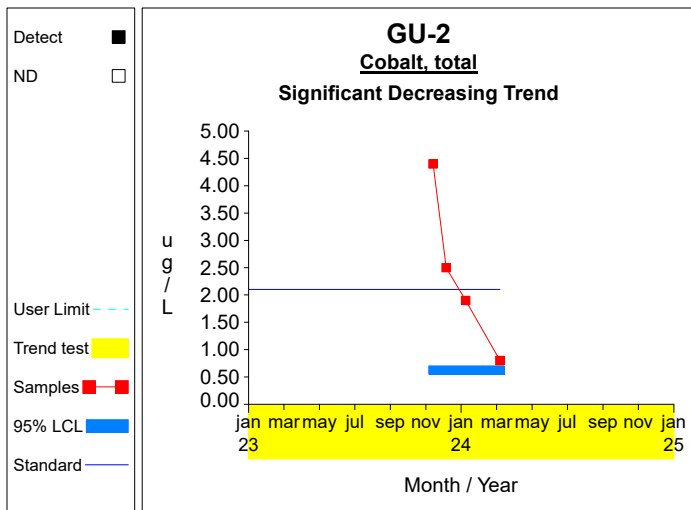
## Confidence Limits (Assessment)



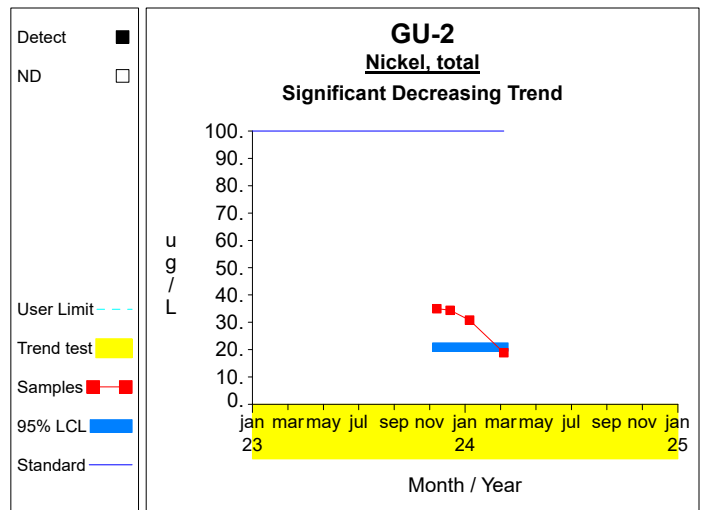
**Graph 1**



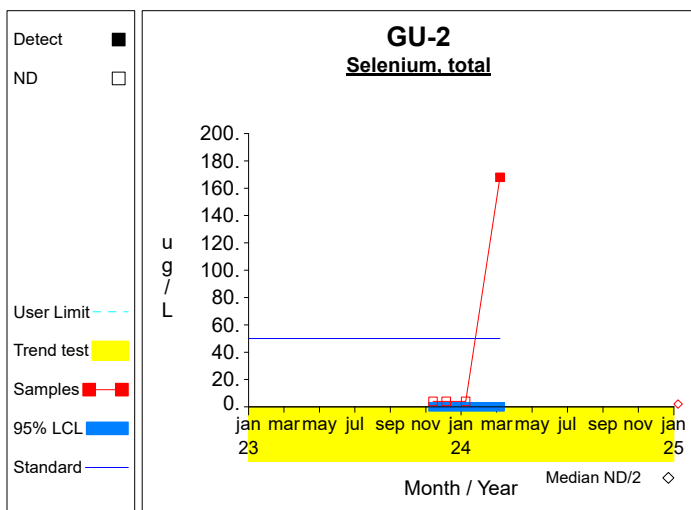
**Graph 2**



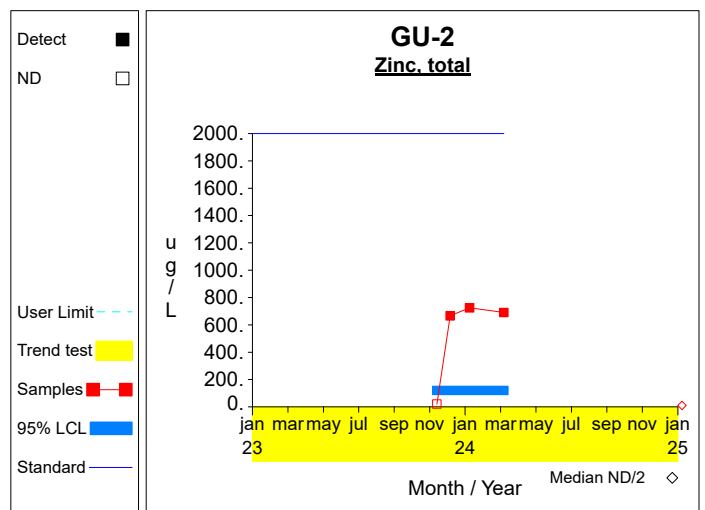
**Graph 3**



**Graph 4**

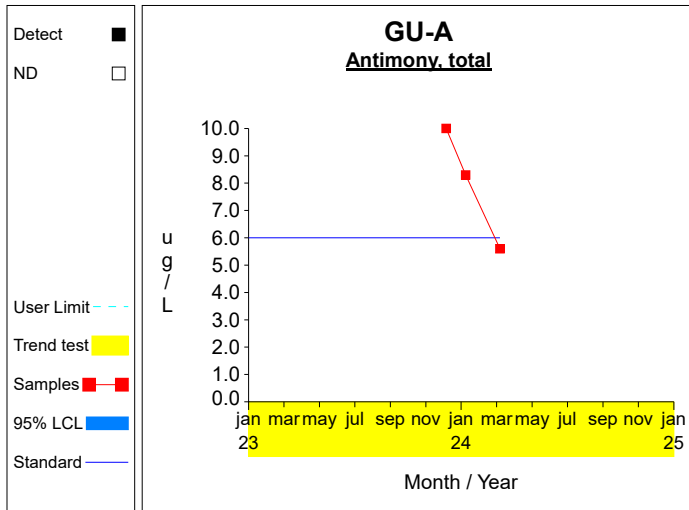


**Graph 5**

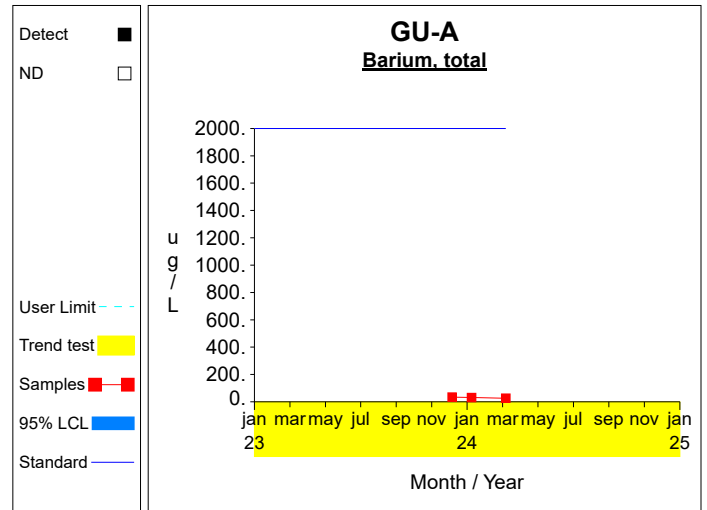


**Graph 6**

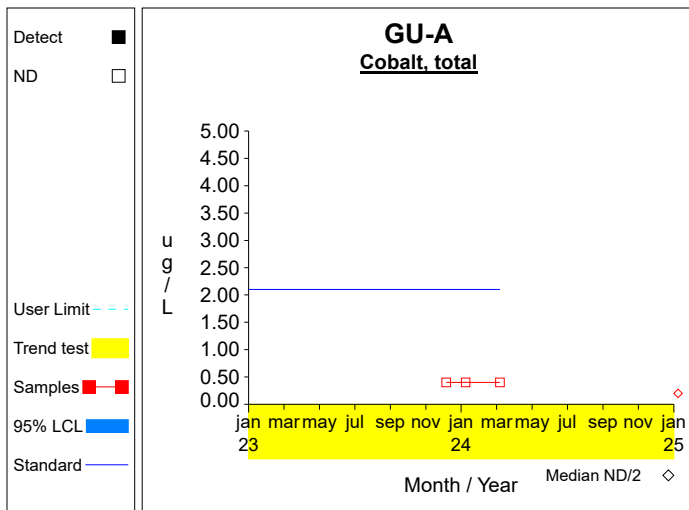
## Confidence Limits (Assessment)



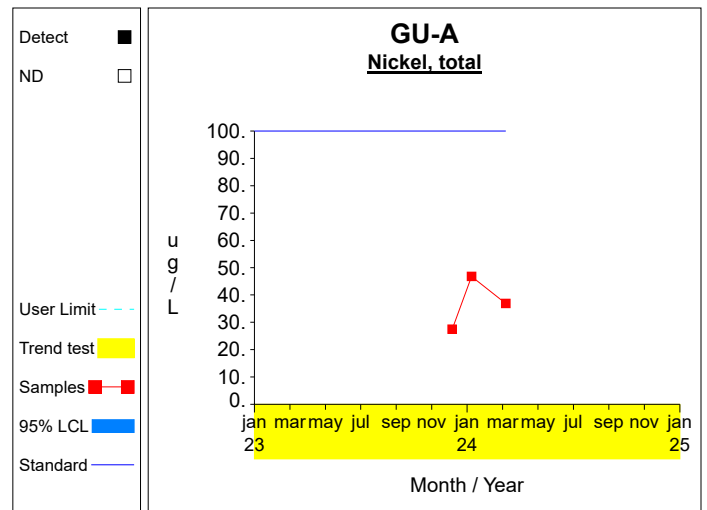
**Graph 7**



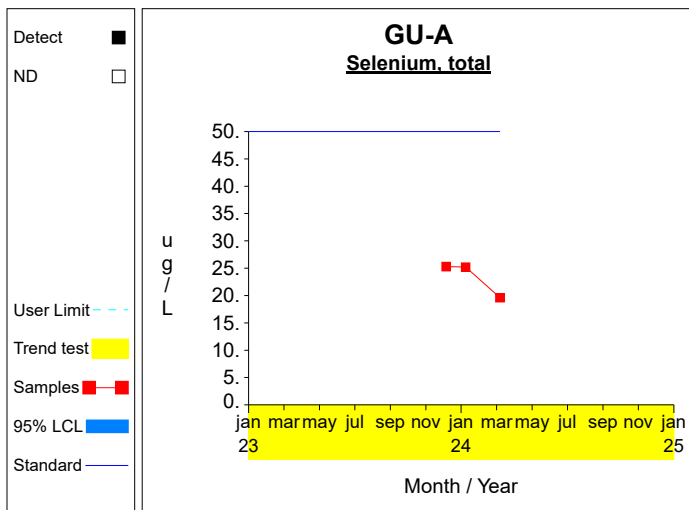
**Graph 8**



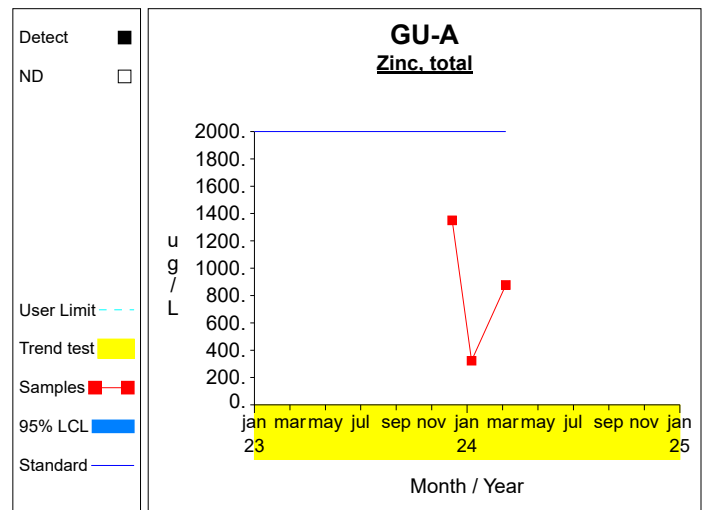
**Graph 9**



**Graph 10**

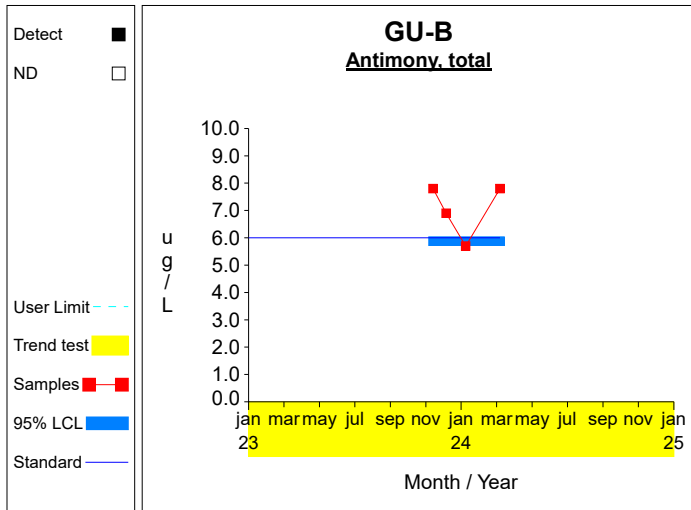


**Graph 11**

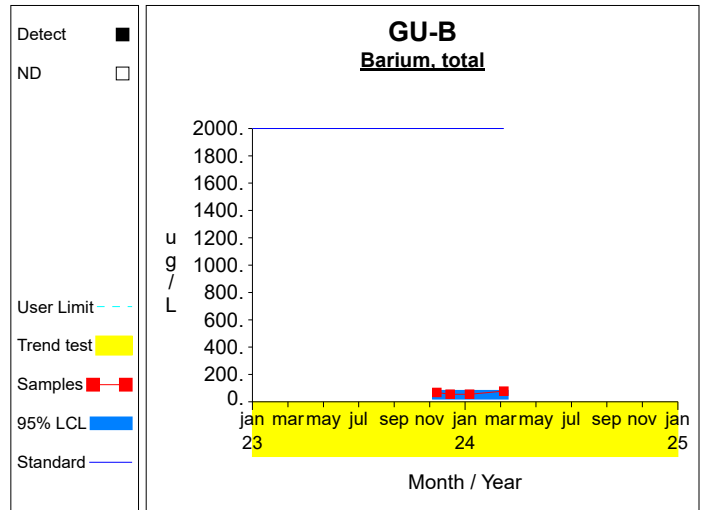


**Graph 12**

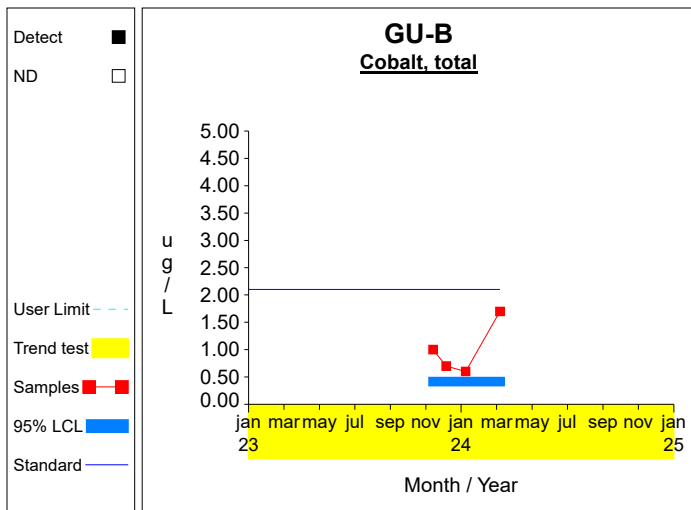
## Confidence Limits (Assessment)



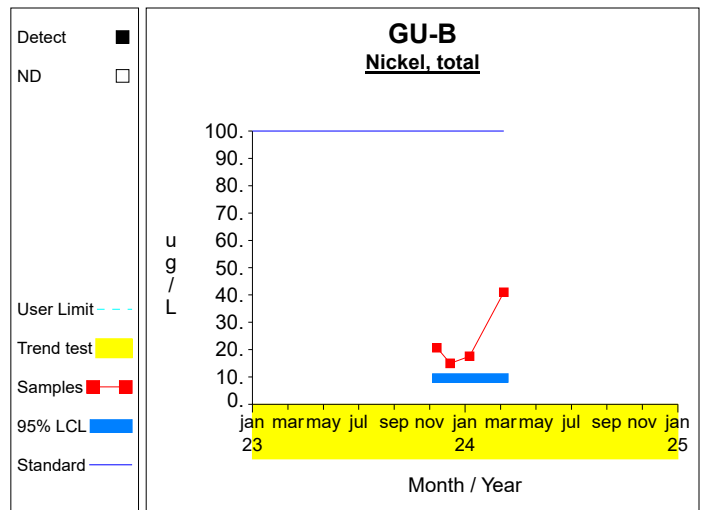
**Graph 13**



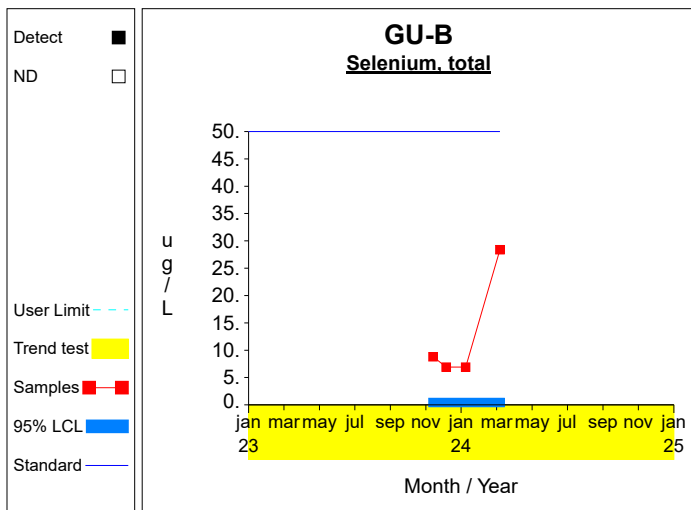
**Graph 14**



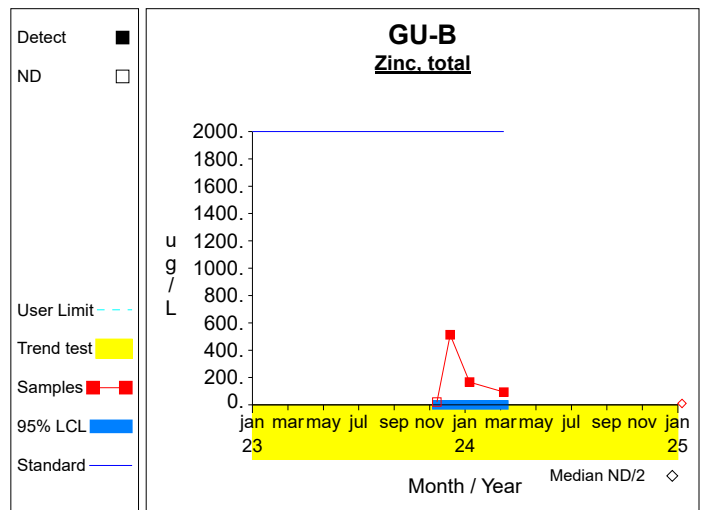
**Graph 15**



**Graph 16**

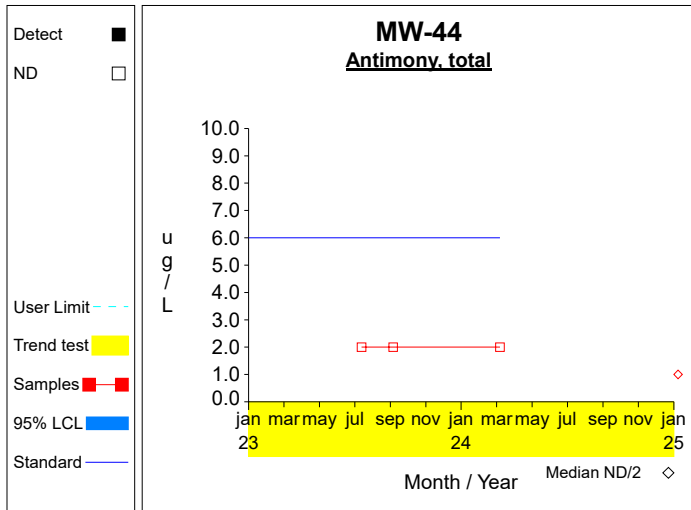


**Graph 17**

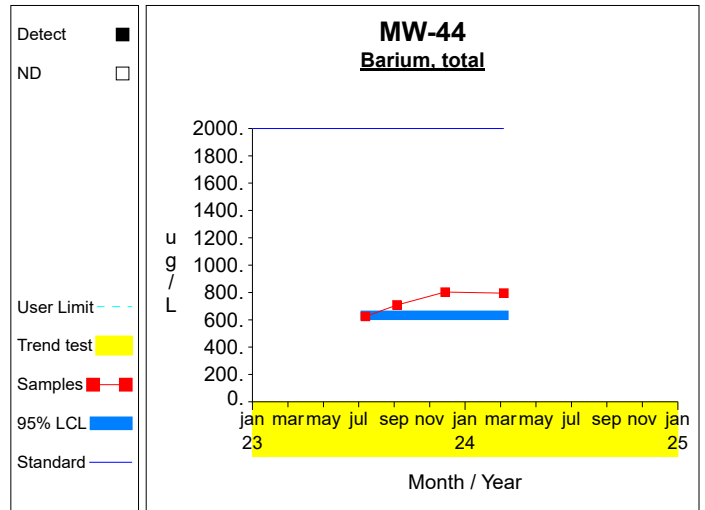


**Graph 18**

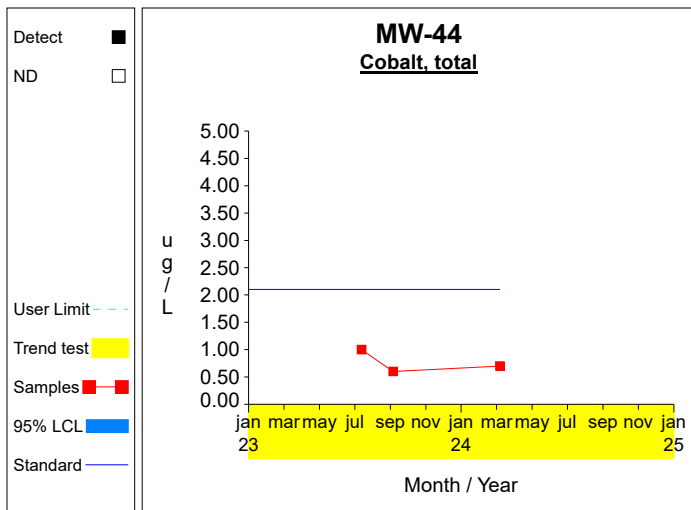
### Confidence Limits (Assessment)



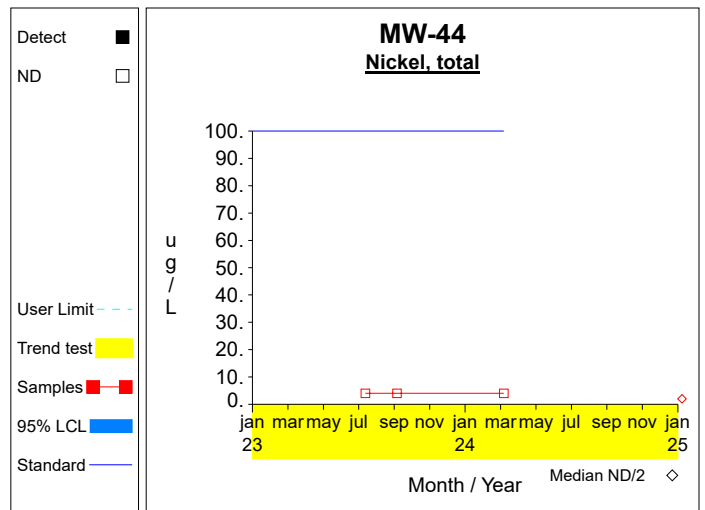
**Graph 19**



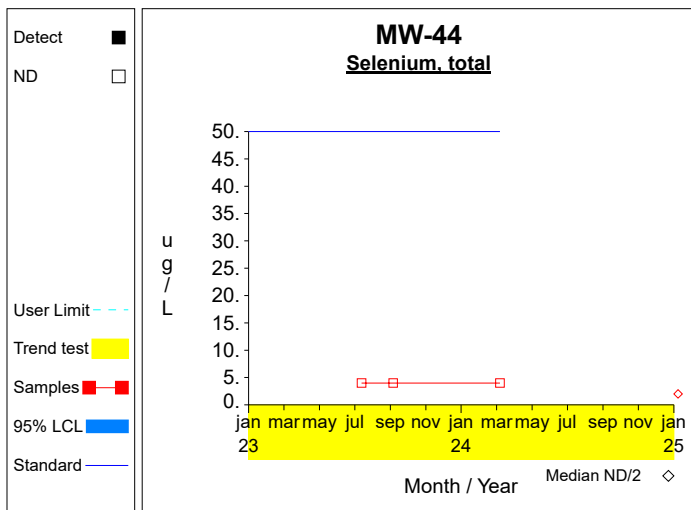
**Graph 20**



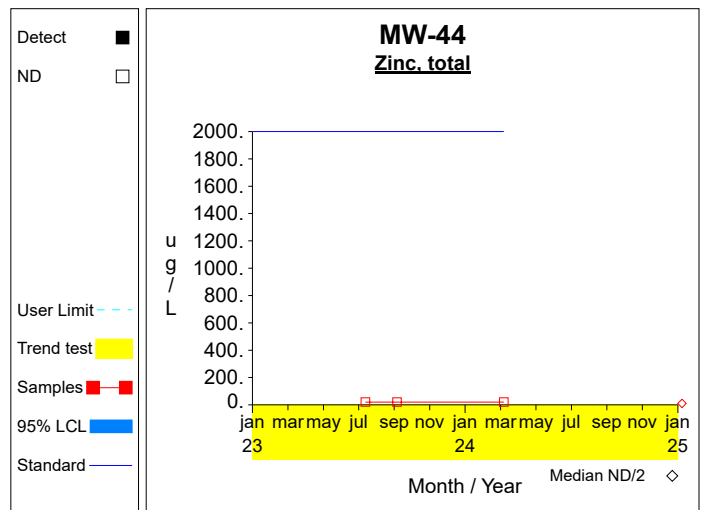
**Graph 21**



**Graph 22**

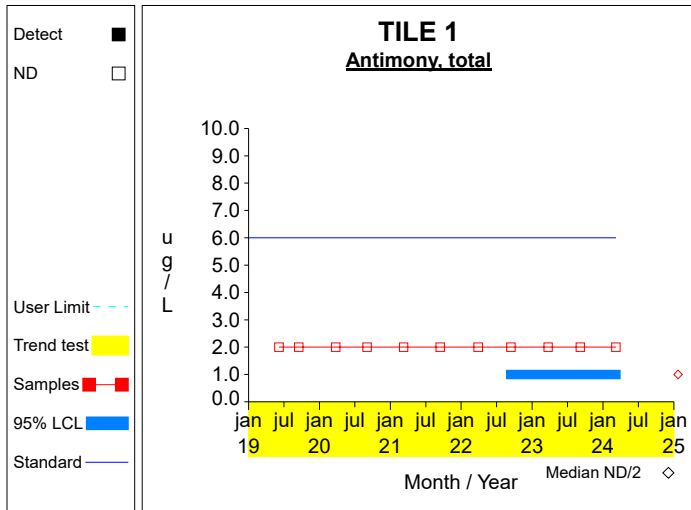


**Graph 23**

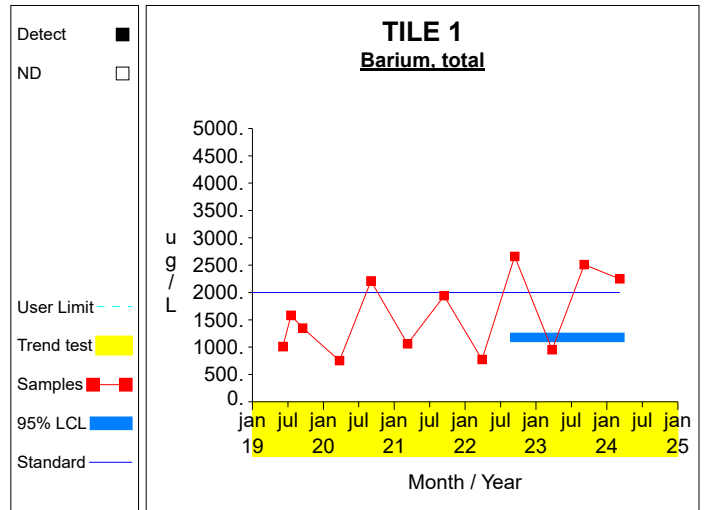


**Graph 24**

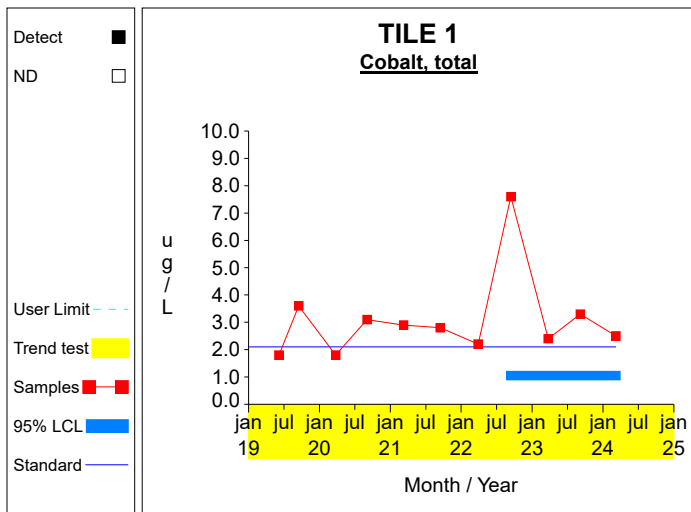
### Confidence Limits (Assessment)



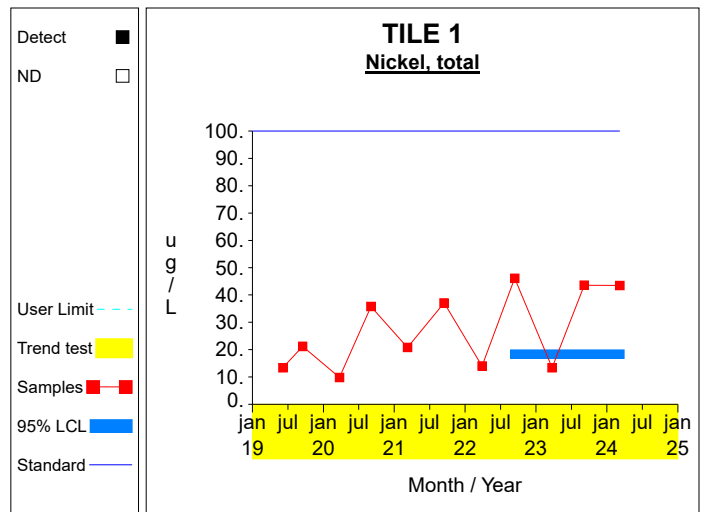
**Graph 25**



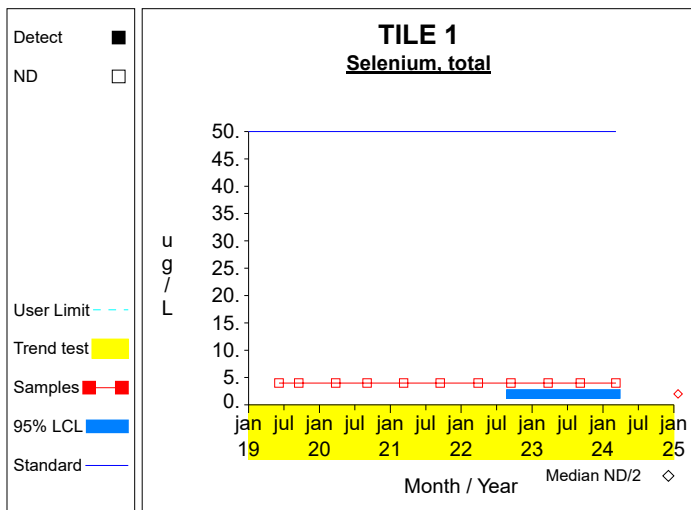
**Graph 26**



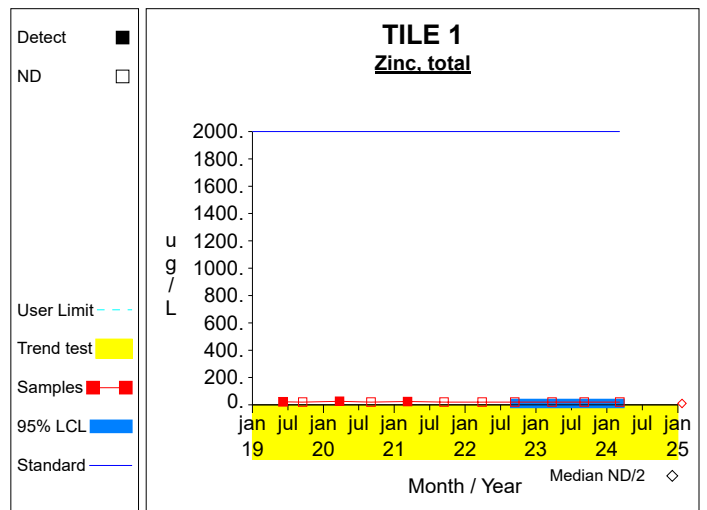
**Graph 27**



**Graph 28**

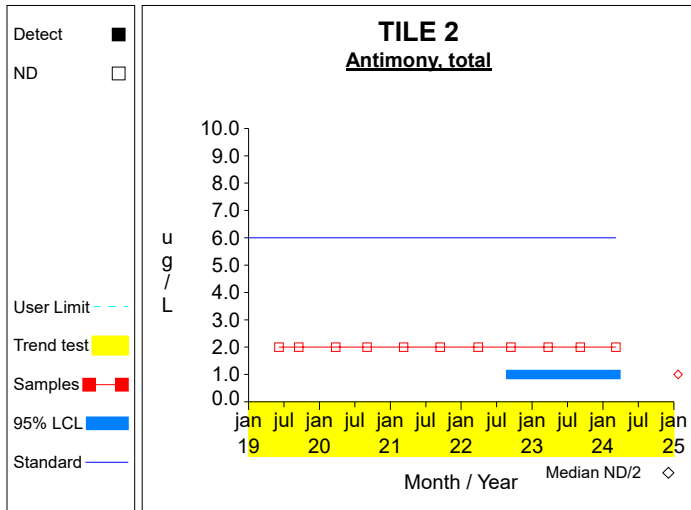


**Graph 29**

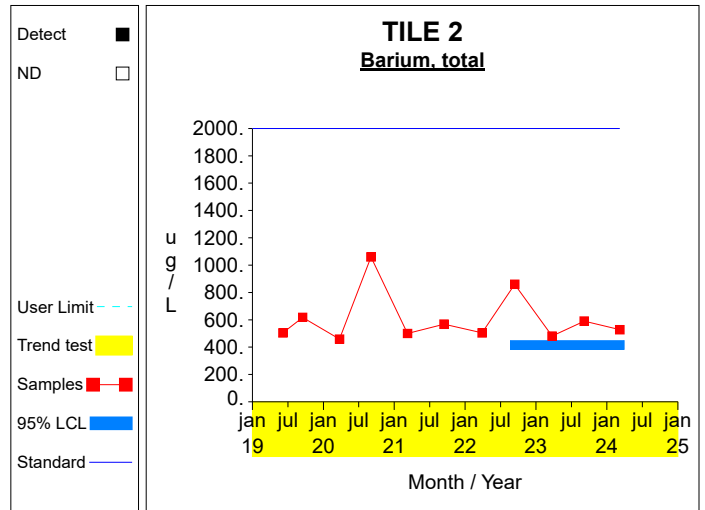


**Graph 30**

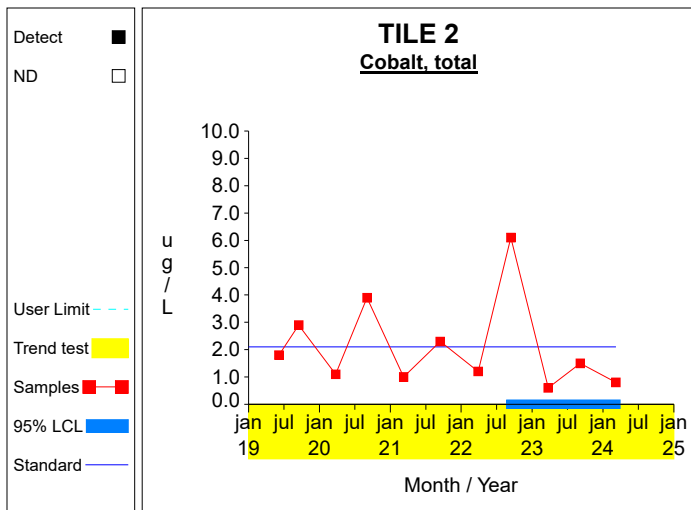
### Confidence Limits (Assessment)



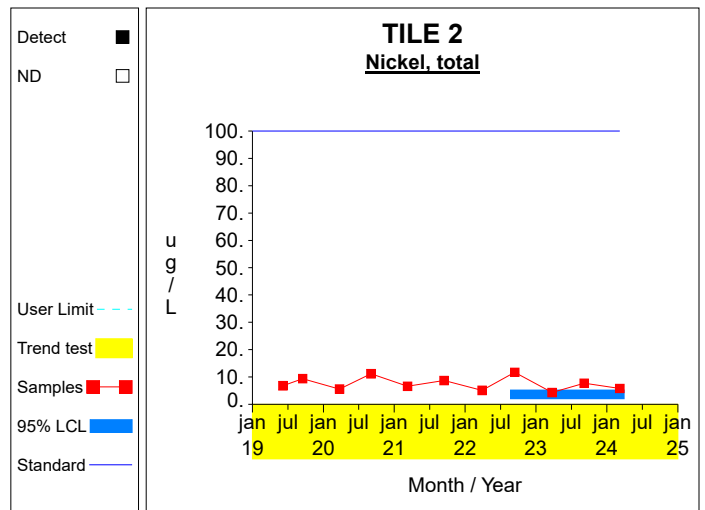
**Graph 31**



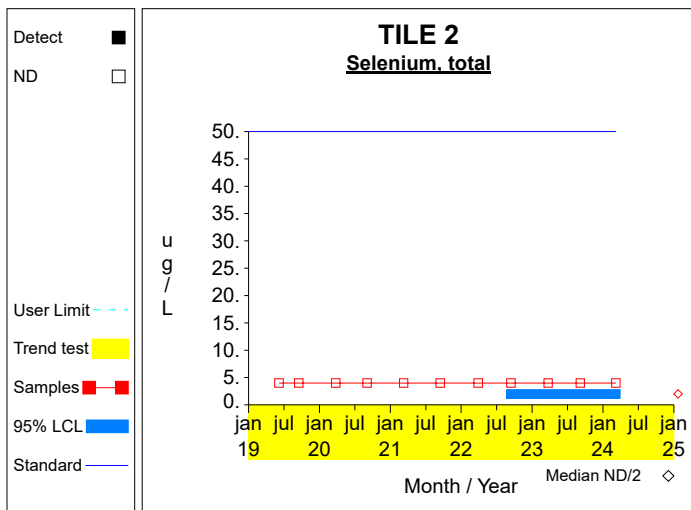
**Graph 32**



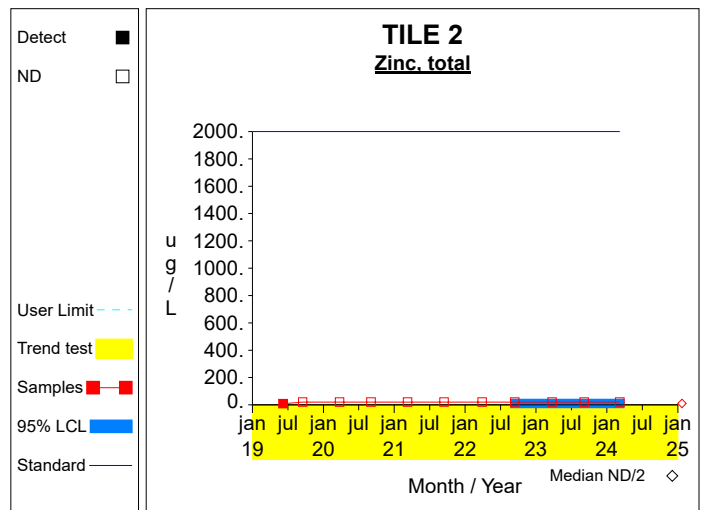
**Graph 33**



**Graph 34**



**Graph 35**



**Graph 36**

**Attachment D**

Summary Tables and Graphs for the Interwell Comparisons  
Bedrock Ground Water

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Antimony, total	ug/L	MW-11C	09/23/2014		2.0000	
Antimony, total	ug/L	MW-11C	09/21/2016	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/09/2017	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/14/2017	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/12/2018	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/10/2018	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/26/2019	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/16/2019	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/24/2020	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/02/2020	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/08/2021	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/14/2021	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/28/2022	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/13/2022	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/23/2023	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/05/2023	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/06/2024	ND	2.0000	
Arsenic, total	ug/L	MW-11C	09/23/2014	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/21/2016	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/09/2017	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/14/2017	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/12/2018	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/10/2018	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/26/2019	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/16/2019	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/24/2020	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/02/2020	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/08/2021	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/14/2021	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/28/2022	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/13/2022	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/23/2023	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/05/2023	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/06/2024	ND	4.0000	
Barium, total	ug/L	MW-11C	09/23/2014		130.0000	
Barium, total	ug/L	MW-11C	09/21/2016		83.7000	
Barium, total	ug/L	MW-11C	03/09/2017		91.5000	
Barium, total	ug/L	MW-11C	09/14/2017		75.9000	
Barium, total	ug/L	MW-11C	03/12/2018		71.5000	
Barium, total	ug/L	MW-11C	09/10/2018		69.9000	
Barium, total	ug/L	MW-11C	03/26/2019		70.5000	
Barium, total	ug/L	MW-11C	09/16/2019		68.6000	
Barium, total	ug/L	MW-11C	03/24/2020		67.8000	
Barium, total	ug/L	MW-11C	09/02/2020		58.8000	
Barium, total	ug/L	MW-11C	03/08/2021		53.7000	
Barium, total	ug/L	MW-11C	09/14/2021		62.3000	
Barium, total	ug/L	MW-11C	03/28/2022		53.4000	
Barium, total	ug/L	MW-11C	09/13/2022		78.3000	
Barium, total	ug/L	MW-11C	03/23/2023		69.2000	
Barium, total	ug/L	MW-11C	09/05/2023		72.3000	
Barium, total	ug/L	MW-11C	03/06/2024		75.4000	
Beryllium, total	ug/L	MW-11C	09/23/2014	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/21/2016	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/09/2017	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/14/2017	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/12/2018	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/10/2018	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/26/2019	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/16/2019	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/24/2020	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/02/2020	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/08/2021	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/14/2021	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/28/2022	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/13/2022	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/23/2023	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/05/2023	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/06/2024	ND	4.0000	
Cadmium, total	ug/L	MW-11C	09/23/2014	ND	0.8000	
Cadmium, total	ug/L	MW-11C	09/21/2016	ND	0.8000	
Cadmium, total	ug/L	MW-11C	03/09/2017	ND	0.8000	
Cadmium, total	ug/L	MW-11C	09/14/2017	ND	0.8000	
Cadmium, total	ug/L	MW-11C	03/12/2018	ND	0.8000	
Cadmium, total	ug/L	MW-11C	09/10/2018	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-11C	03/26/2019	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/24/2020	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/14/2021	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/28/2022	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/13/2022	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/23/2023	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/05/2023	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/06/2024	ND	0.8000		
Chromium, total	ug/L	MW-11C	09/23/2014	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/21/2016	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/14/2017	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/26/2019	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/24/2020	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/02/2020	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/14/2021	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/28/2022	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/13/2022	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/23/2023	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/05/2023	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/06/2024	ND	8.0000		
Cobalt, total	ug/L	MW-11C	09/23/2014		1.3000		
Cobalt, total	ug/L	MW-11C	09/21/2016	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/09/2017	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/14/2017	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/12/2018	ND	2.0000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/10/2018	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/26/2019	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/16/2019	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/24/2020	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/02/2020	ND	0.4000		
Cobalt, total	ug/L	MW-11C	03/08/2021	ND	0.4000		
Cobalt, total	ug/L	MW-11C	09/14/2021	ND	0.4000		
Cobalt, total	ug/L	MW-11C	03/28/2022	ND	0.4000		
Cobalt, total	ug/L	MW-11C	09/13/2022		3.6000		
Cobalt, total	ug/L	MW-11C	03/23/2023	ND	0.4000		
Cobalt, total	ug/L	MW-11C	09/05/2023	ND	0.4000		
Cobalt, total	ug/L	MW-11C	03/06/2024	ND	0.4000		
Copper, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Copper, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Copper, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Copper, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Copper, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Copper, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Copper, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Copper, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Copper, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Copper, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Copper, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Copper, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Copper, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Copper, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Copper, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Copper, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Copper, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Lead, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Lead, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Lead, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Lead, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Lead, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Lead, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Lead, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Lead, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Lead, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Lead, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Lead, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Lead, total	ug/L	MW-11C	09/14/2021	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-11C	03/28/2022	ND	4.0000		
Lead, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Lead, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Lead, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Lead, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/23/2014		9.5000		
Nickel, total	ug/L	MW-11C	09/21/2016		4.9000		
Nickel, total	ug/L	MW-11C	03/09/2017		5.9000		
Nickel, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Silver, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Silver, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Silver, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Silver, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Silver, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Silver, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Silver, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Silver, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Silver, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Silver, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Silver, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Silver, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Silver, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Silver, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Silver, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Silver, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Silver, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Thallium, total	ug/L	MW-11C	09/23/2014	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	09/21/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	03/09/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	09/14/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	03/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	09/10/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	03/26/2019	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/16/2019	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/24/2020	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/02/2020	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/14/2021	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/28/2022	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/13/2022	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/23/2023	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/05/2023	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/06/2024	ND	2.0000		
Vanadium, total	ug/L	MW-11C	09/23/2014	ND	20.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-11C	09/21/2016	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/09/2017	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/14/2017	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/26/2019	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/24/2020	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/14/2021	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/28/2022	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/13/2022	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/23/2023	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/05/2023	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/06/2024	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/23/2014		20.7000		
Zinc, total	ug/L	MW-11C	09/21/2016		11.9000		
Zinc, total	ug/L	MW-11C	03/09/2017		15.8000		
Zinc, total	ug/L	MW-11C	09/14/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	03/12/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	09/10/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	03/26/2019	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	09/16/2019	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/24/2020	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/02/2020	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/14/2021	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/28/2022	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/13/2022	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/23/2023	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/05/2023	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/06/2024	ND	20.0000		
Antimony, total	ug/L	MW-39D	09/02/2020		2.1000		
Antimony, total	ug/L	MW-39D	03/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-39D	09/14/2021	ND	2.0000		
Antimony, total	ug/L	MW-39D	03/28/2022	ND	2.0000		
Antimony, total	ug/L	MW-39D	09/13/2022	ND	2.0000		
Antimony, total	ug/L	MW-39D	03/23/2023	ND	2.0000		
Antimony, total	ug/L	MW-39D	09/05/2023	ND	2.0000		
Antimony, total	ug/L	MW-39D	03/06/2024	ND	2.0000		
Arsenic, total	ug/L	MW-39D	09/02/2020		5.8000		
Arsenic, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Arsenic, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Arsenic, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Arsenic, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Arsenic, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Arsenic, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Barium, total	ug/L	MW-39D	09/02/2020		45.7000		
Barium, total	ug/L	MW-39D	03/08/2021		54.9000		
Barium, total	ug/L	MW-39D	09/14/2021		38.3000		
Barium, total	ug/L	MW-39D	03/28/2022		36.5000		
Barium, total	ug/L	MW-39D	09/13/2022		51.0000		
Barium, total	ug/L	MW-39D	03/23/2023		34.8000		
Barium, total	ug/L	MW-39D	09/05/2023		33.5000		
Barium, total	ug/L	MW-39D	03/06/2024		34.5000		
Beryllium, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Beryllium, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Beryllium, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Cadmium, total	ug/L	MW-39D	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-39D	09/14/2021	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/28/2022	ND	0.8000		
Cadmium, total	ug/L	MW-39D	09/13/2022	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/23/2023	ND	0.8000		
Cadmium, total	ug/L	MW-39D	09/05/2023	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/06/2024	ND	0.8000		
Chromium, total	ug/L	MW-39D	09/02/2020	ND	8.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-39D	03/08/2021		13.2000		
Chromium, total	ug/L	MW-39D	09/14/2021	ND	8.0000		
Chromium, total	ug/L	MW-39D	03/28/2022	ND	8.0000		
Chromium, total	ug/L	MW-39D	09/13/2022	ND	8.0000		
Chromium, total	ug/L	MW-39D	03/23/2023	ND	8.0000		
Chromium, total	ug/L	MW-39D	09/05/2023	ND	8.0000		
Chromium, total	ug/L	MW-39D	03/06/2024	ND	8.0000		
Cobalt, total	ug/L	MW-39D	09/02/2020	ND	0.4000		
Cobalt, total	ug/L	MW-39D	03/08/2021		2.6000		*
Cobalt, total	ug/L	MW-39D	09/14/2021	ND	0.4000		
Cobalt, total	ug/L	MW-39D	03/28/2022	ND	0.4000		
Cobalt, total	ug/L	MW-39D	09/13/2022		3.3000		*
Cobalt, total	ug/L	MW-39D	03/23/2023	ND	0.4000		
Cobalt, total	ug/L	MW-39D	09/05/2023	ND	0.4000		
Cobalt, total	ug/L	MW-39D	03/06/2024	ND	0.4000		
Copper, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Copper, total	ug/L	MW-39D	03/08/2021		5.6000		
Copper, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Copper, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Copper, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Copper, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Copper, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Copper, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Lead, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Lead, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Lead, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Lead, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Lead, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Lead, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Lead, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Lead, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Nickel, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/08/2021		10.6000		
Nickel, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Nickel, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Nickel, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Silver, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Silver, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Silver, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Silver, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Silver, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Silver, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Silver, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Silver, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Thallium, total	ug/L	MW-39D	09/02/2020	ND	2.0000		
Thallium, total	ug/L	MW-39D	03/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-39D	09/14/2021	ND	2.0000		
Thallium, total	ug/L	MW-39D	03/28/2022	ND	2.0000		
Thallium, total	ug/L	MW-39D	09/13/2022	ND	2.0000		
Thallium, total	ug/L	MW-39D	03/23/2023	ND	2.0000		
Thallium, total	ug/L	MW-39D	09/05/2023	ND	2.0000		
Thallium, total	ug/L	MW-39D	03/06/2024	ND	2.0000		
Vanadium, total	ug/L	MW-39D	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-39D	03/08/2021		20.0000		
Vanadium, total	ug/L	MW-39D	09/14/2021	ND	20.0000		
Vanadium, total	ug/L	MW-39D	03/28/2022	ND	20.0000		
Vanadium, total	ug/L	MW-39D	09/13/2022	ND	20.0000		
Vanadium, total	ug/L	MW-39D	03/23/2023	ND	20.0000		
Vanadium, total	ug/L	MW-39D	09/05/2023	ND	20.0000		
Vanadium, total	ug/L	MW-39D	03/06/2024	ND	20.0000		
Zinc, total	ug/L	MW-39D	09/02/2020	ND	20.0000		
Zinc, total	ug/L	MW-39D	03/08/2021		20.7000		
Zinc, total	ug/L	MW-39D	09/14/2021	ND	20.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Zinc, total	ug/L	MW-39D	03/28/2022	ND	20.0000	
Zinc, total	ug/L	MW-39D	09/13/2022		25.0000	
Zinc, total	ug/L	MW-39D	03/23/2023	ND	20.0000	
Zinc, total	ug/L	MW-39D	09/05/2023	ND	20.0000	
Zinc, total	ug/L	MW-39D	03/06/2024		20.4000	
Antimony, total	ug/L	MW-41D	09/02/2020	ND	2.0000	
Antimony, total	ug/L	MW-41D	03/08/2021	ND	2.0000	
Antimony, total	ug/L	MW-41D	09/14/2021	ND	2.0000	
Antimony, total	ug/L	MW-41D	03/28/2022	ND	2.0000	
Antimony, total	ug/L	MW-41D	09/13/2022		2.6000	
Antimony, total	ug/L	MW-41D	03/23/2023		2.8000	
Antimony, total	ug/L	MW-41D	09/05/2023		3.1000	
Antimony, total	ug/L	MW-41D	03/06/2024	ND	2.0000	
Arsenic, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Arsenic, total	ug/L	MW-41D	03/08/2021		5.2000	
Arsenic, total	ug/L	MW-41D	09/14/2021		4.7000	
Arsenic, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Arsenic, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Arsenic, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Arsenic, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Arsenic, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Barium, total	ug/L	MW-41D	09/02/2020		38.4000	
Barium, total	ug/L	MW-41D	03/08/2021		34.4000	
Barium, total	ug/L	MW-41D	09/14/2021		30.5000	
Barium, total	ug/L	MW-41D	03/28/2022		33.7000	
Barium, total	ug/L	MW-41D	09/13/2022		31.3000	
Barium, total	ug/L	MW-41D	03/23/2023		32.2000	
Barium, total	ug/L	MW-41D	09/05/2023		30.3000	
Barium, total	ug/L	MW-41D	03/06/2024		32.6000	
Beryllium, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Beryllium, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Beryllium, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Beryllium, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Cadmium, total	ug/L	MW-41D	09/02/2020	ND	0.8000	
Cadmium, total	ug/L	MW-41D	03/08/2021	ND	0.8000	
Cadmium, total	ug/L	MW-41D	09/14/2021	ND	0.8000	
Cadmium, total	ug/L	MW-41D	03/28/2022	ND	0.8000	
Cadmium, total	ug/L	MW-41D	09/13/2022	ND	0.8000	
Cadmium, total	ug/L	MW-41D	03/23/2023	ND	0.8000	
Cadmium, total	ug/L	MW-41D	09/05/2023	ND	0.8000	
Cadmium, total	ug/L	MW-41D	03/06/2024	ND	0.8000	
Chromium, total	ug/L	MW-41D	09/02/2020	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/08/2021	ND	8.0000	
Chromium, total	ug/L	MW-41D	09/14/2021	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/28/2022	ND	8.0000	
Chromium, total	ug/L	MW-41D	09/13/2022	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/23/2023	ND	8.0000	
Chromium, total	ug/L	MW-41D	09/05/2023	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/06/2024	ND	8.0000	
Cobalt, total	ug/L	MW-41D	09/02/2020		5.1000	
Cobalt, total	ug/L	MW-41D	03/08/2021		3.9000	
Cobalt, total	ug/L	MW-41D	09/14/2021		2.6000	
Cobalt, total	ug/L	MW-41D	03/28/2022		2.5000	
Cobalt, total	ug/L	MW-41D	09/13/2022		5.4000	
Cobalt, total	ug/L	MW-41D	03/23/2023		1.2000	
Cobalt, total	ug/L	MW-41D	09/05/2023		0.9000	
Cobalt, total	ug/L	MW-41D	03/06/2024		1.0000	
Copper, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Copper, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Copper, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Copper, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Copper, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Copper, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Copper, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Copper, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Lead, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Lead, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Lead, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Lead, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Lead, total	ug/L	MW-41D	09/13/2022	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
Lead, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Lead, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Lead, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Nickel, total	ug/L	MW-41D	09/02/2020		11.8000	
Nickel, total	ug/L	MW-41D	03/08/2021		6.7000	
Nickel, total	ug/L	MW-41D	09/14/2021		6.6000	
Nickel, total	ug/L	MW-41D	03/28/2022		6.7000	
Nickel, total	ug/L	MW-41D	09/13/2022		10.3000	
Nickel, total	ug/L	MW-41D	03/23/2023		8.5000	
Nickel, total	ug/L	MW-41D	09/05/2023		7.5000	
Nickel, total	ug/L	MW-41D	03/06/2024		4.3000	
Selenium, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Selenium, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Selenium, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Selenium, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Silver, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Silver, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Silver, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Silver, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Silver, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Silver, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Silver, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Silver, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Thallium, total	ug/L	MW-41D	09/02/2020	ND	2.0000	
Thallium, total	ug/L	MW-41D	03/08/2021	ND	2.0000	
Thallium, total	ug/L	MW-41D	09/14/2021	ND	2.0000	
Thallium, total	ug/L	MW-41D	03/28/2022	ND	2.0000	
Thallium, total	ug/L	MW-41D	09/13/2022	ND	2.0000	
Thallium, total	ug/L	MW-41D	03/23/2023	ND	2.0000	
Thallium, total	ug/L	MW-41D	09/05/2023	ND	2.0000	
Thallium, total	ug/L	MW-41D	03/06/2024	ND	2.0000	
Vanadium, total	ug/L	MW-41D	09/02/2020	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/08/2021	ND	20.0000	
Vanadium, total	ug/L	MW-41D	09/14/2021	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/28/2022	ND	20.0000	
Vanadium, total	ug/L	MW-41D	09/13/2022	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/23/2023	ND	20.0000	
Vanadium, total	ug/L	MW-41D	09/05/2023	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/06/2024	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/02/2020	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/08/2021	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/14/2021	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/28/2022	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/13/2022	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/23/2023	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/05/2023	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/06/2024	ND	20.0000	
Antimony, total	ug/L	MW-42D	09/02/2020		10.9000	
Antimony, total	ug/L	MW-42D	03/08/2021		8.9000	
Antimony, total	ug/L	MW-42D	09/14/2021		9.4000	
Antimony, total	ug/L	MW-42D	03/28/2022		7.4000	
Antimony, total	ug/L	MW-42D	09/13/2022	ND	2.0000	
Antimony, total	ug/L	MW-42D	03/23/2023	ND	2.0000	
Antimony, total	ug/L	MW-42D	09/05/2023	ND	2.0000	
Antimony, total	ug/L	MW-42D	03/06/2024	ND	2.0000	
Arsenic, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Arsenic, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Arsenic, total	ug/L	MW-42D	09/14/2021		4.3000	
Arsenic, total	ug/L	MW-42D	03/28/2022		5.0000	
Arsenic, total	ug/L	MW-42D	09/13/2022		5.7000	
Arsenic, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Arsenic, total	ug/L	MW-42D	09/05/2023		4.3000	
Arsenic, total	ug/L	MW-42D	03/06/2024		4.2000	
Barium, total	ug/L	MW-42D	09/02/2020		58.3000	
Barium, total	ug/L	MW-42D	03/08/2021		53.5000	
Barium, total	ug/L	MW-42D	09/14/2021		55.5000	
Barium, total	ug/L	MW-42D	03/28/2022		52.3000	
Barium, total	ug/L	MW-42D	09/13/2022		44.7000	
Barium, total	ug/L	MW-42D	03/23/2023		40.1000	
Barium, total	ug/L	MW-42D	09/05/2023		36.6000	

\* - 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-42D	03/06/2024		37.0000	
Beryllium, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Beryllium, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Beryllium, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Beryllium, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Cadmium, total	ug/L	MW-42D	09/02/2020	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/08/2021	ND	0.8000	
Cadmium, total	ug/L	MW-42D	09/14/2021	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/28/2022	ND	0.8000	
Cadmium, total	ug/L	MW-42D	09/13/2022	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/23/2023	ND	0.8000	
Cadmium, total	ug/L	MW-42D	09/05/2023	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/06/2024	ND	0.8000	
Chromium, total	ug/L	MW-42D	09/02/2020	ND	8.0000	
Chromium, total	ug/L	MW-42D	03/08/2021	ND	8.0000	
Chromium, total	ug/L	MW-42D	09/14/2021	ND	8.0000	
Chromium, total	ug/L	MW-42D	03/28/2022	ND	8.0000	
Chromium, total	ug/L	MW-42D	09/13/2022	ND	8.0000	
Chromium, total	ug/L	MW-42D	03/23/2023	ND	8.0000	
Chromium, total	ug/L	MW-42D	09/05/2023	ND	8.0000	
Chromium, total	ug/L	MW-42D	03/06/2024	ND	8.0000	
Cobalt, total	ug/L	MW-42D	09/02/2020	ND	0.4000	
Cobalt, total	ug/L	MW-42D	03/08/2021	ND	0.4000	
Cobalt, total	ug/L	MW-42D	09/14/2021	ND	0.4000	
Cobalt, total	ug/L	MW-42D	03/28/2022		0.5000	*
Cobalt, total	ug/L	MW-42D	09/13/2022		3.4000	*
Cobalt, total	ug/L	MW-42D	03/23/2023	ND	0.4000	
Cobalt, total	ug/L	MW-42D	09/05/2023	ND	0.4000	
Cobalt, total	ug/L	MW-42D	03/06/2024	ND	0.4000	
Copper, total	ug/L	MW-42D	09/02/2020		6.5000	
Copper, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Copper, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Copper, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Copper, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Copper, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Copper, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Copper, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Lead, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Lead, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Lead, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Lead, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Lead, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Lead, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Lead, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Lead, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Silver, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Silver, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Silver, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Silver, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Silver, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Silver, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Silver, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Silver, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Thallium, total	ug/L	MW-42D	09/02/2020	ND	2.0000	

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

**Table 1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Thallium, total	ug/L	MW-42D	03/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-42D	09/14/2021	ND	2.0000		
Thallium, total	ug/L	MW-42D	03/28/2022	ND	2.0000		
Thallium, total	ug/L	MW-42D	09/13/2022	ND	2.0000		
Thallium, total	ug/L	MW-42D	03/23/2023	ND	2.0000		
Thallium, total	ug/L	MW-42D	09/05/2023	ND	2.0000		
Thallium, total	ug/L	MW-42D	03/06/2024	ND	2.0000		
Vanadium, total	ug/L	MW-42D	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-42D	03/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-42D	09/14/2021	ND	20.0000		
Vanadium, total	ug/L	MW-42D	03/28/2022	ND	20.0000		
Vanadium, total	ug/L	MW-42D	09/13/2022	ND	20.0000		
Vanadium, total	ug/L	MW-42D	03/23/2023	ND	20.0000		
Vanadium, total	ug/L	MW-42D	09/05/2023	ND	20.0000		
Vanadium, total	ug/L	MW-42D	03/06/2024	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/02/2020		34.5000		
Zinc, total	ug/L	MW-42D	03/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/14/2021	ND	20.0000		
Zinc, total	ug/L	MW-42D	03/28/2022	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/13/2022	ND	20.0000		
Zinc, total	ug/L	MW-42D	03/23/2023	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/05/2023	ND	20.0000		
Zinc, total	ug/L	MW-42D	03/06/2024	ND	20.0000		

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



Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW-14D	03/06/2024		2.2000		10.9000
Arsenic, total	ug/L	MW-14D	03/06/2024	ND	4.0000		5.8000
Barium, total	ug/L	MW-14D	03/06/2024		17.6000		124.0644
Beryllium, total	ug/L	MW-14D	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-14D	03/06/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-14D	03/06/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-14D	03/06/2024		4.7000	**	5.4000
Copper, total	ug/L	MW-14D	03/06/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-14D	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-14D	03/06/2024	ND	4.0000		11.8000
Selenium, total	ug/L	MW-14D	03/06/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-14D	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-14D	03/06/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-14D	03/06/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-14D	03/06/2024	ND	20.0000		34.5000
Antimony, total	ug/L	MW-17R	03/06/2024	ND	2.0000		10.9000
Arsenic, total	ug/L	MW-17R	03/06/2024	ND	4.0000		5.8000
Barium, total	ug/L	MW-17R	03/06/2024		432.0000	***	124.0644
Beryllium, total	ug/L	MW-17R	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-17R	03/06/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-17R	03/06/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-17R	03/06/2024		4.0000		5.4000
Copper, total	ug/L	MW-17R	03/06/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-17R	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-17R	03/06/2024		18.9000	***	11.8000
Selenium, total	ug/L	MW-17R	03/06/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-17R	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-17R	03/06/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-17R	03/06/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-17R	03/06/2024	ND	20.0000		34.5000
Antimony, total	ug/L	MW-28	03/06/2024	ND	2.0000		10.9000
Arsenic, total	ug/L	MW-28	03/06/2024		59.7000	***	5.8000
Barium, total	ug/L	MW-28	03/06/2024		1390.0000	***	124.0644
Beryllium, total	ug/L	MW-28	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-28	03/06/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-28	03/06/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-28	03/06/2024		72.7000	***	5.4000
Copper, total	ug/L	MW-28	03/06/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-28	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-28	03/06/2024		26.9000	***	11.8000
Selenium, total	ug/L	MW-28	03/06/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-28	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-28	03/06/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-28	03/06/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-28	03/06/2024	ND	20.0000		34.5000
Antimony, total	ug/L	MW-45D	03/06/2024		2.0000		10.9000
Arsenic, total	ug/L	MW-45D	03/06/2024	ND	4.0000		5.8000
Barium, total	ug/L	MW-45D	03/06/2024		32.3000		124.0644
Beryllium, total	ug/L	MW-45D	03/06/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-45D	03/06/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-45D	03/06/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-45D	03/06/2024		2.1000		5.4000
Copper, total	ug/L	MW-45D	03/06/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-45D	03/06/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-45D	03/06/2024		5.2000		11.8000
Selenium, total	ug/L	MW-45D	03/06/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-45D	03/06/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-45D	03/06/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-45D	03/06/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-45D	03/06/2024	ND	20.0000		34.5000

\* - 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	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, total	9	41	0.220	14	45	0.311
Arsenic, total	8	41	0.195	11	44	0.250
Barium, total	41	41	1.000	44	44	1.000
Beryllium, total	0	41	0.000	0	44	0.000
Cadmium, total	0	41	0.000	0	44	0.000
Chromium, total	1	41	0.024	0	44	0.000
Cobalt, total	11	38	0.289	39	45	0.867
Copper, total	2	41	0.049	0	44	0.000
Lead, total	0	41	0.000	0	44	0.000
Nickel, total	12	41	0.293	29	45	0.644
Selenium, total	0	41	0.000	10	49	0.204
Silver, total	0	41	0.000	0	44	0.000
Thallium, total	0	41	0.000	0	44	0.000
Vanadium, total	1	41	0.024	0	44	0.000
Zinc, total	7	41	0.171	2	44	0.045

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	9	41	0.220	1.683	1.643					2.326	normal	nonpar
Arsenic, total	8	41	0.195	1.205	1.119					2.326	normal	nonpar
Barium, total	41	41	1.000	2.977	2.053					2.326	lognor	lognor
Beryllium, total	0	41	0.000									nonpar
Cadmium, total	0	41	0.000									nonpar
Chromium, total	1	41	0.024									nonpar
Cobalt, total	11	38	0.289	0.799	0.719					2.326	normal	nonpar
Copper, total	2	41	0.049									nonpar
Lead, total	0	41	0.000									nonpar
Nickel, total	12	41	0.293	0.054	0.369					2.326	normal	nonpar
Selenium, total	0	41	0.000									nonpar
Silver, total	0	41	0.000									nonpar
Thallium, total	0	41	0.000									nonpar
Vanadium, total	1	41	0.024									nonpar
Zinc, total	7	41	0.171	0.054	0.533					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	9	41					10.9000	nonpar		0.99
Arsenic, total	ug/L	8	41					5.8000	nonpar		0.99
Barium, total	ug/L	41	41	3.9264	0.3647	0.0100	2.4525	124.0644	lognor		
Beryllium, total	ug/L	0	41					4.0000	nonpar	***	0.99
Cadmium, total	ug/L	0	41					0.8000	nonpar	***	0.99
Chromium, total	ug/L	1	41					13.2000	nonpar		0.99
Cobalt, total	ug/L	11	38					5.4000	nonpar		0.99
Copper, total	ug/L	2	41					6.5000	nonpar		0.99
Lead, total	ug/L	0	41					4.0000	nonpar	***	0.99
Nickel, total	ug/L	12	41					11.8000	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	1	41					20.0000	nonpar	***	0.99
Zinc, total	ug/L	7	41					34.5000	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
Cobalt, total	ug/L	MW-39D	03/08/2021	2.6000		09/02/2020-03/06/2024	8	0.6371
Cobalt, total	ug/L	MW-39D	09/13/2022	3.3000		09/02/2020-03/06/2024	8	0.6371
Cobalt, total	ug/L	MW-42D	09/13/2022	3.4000		09/02/2020-03/06/2024	8	0.6808

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
Cobalt, total	ug/L	MW-14D	09/21/2016	ND	0.8000	5.4000
Cobalt, total	ug/L	MW-14D	03/09/2017	ND	0.8000	5.4000
Cobalt, total	ug/L	MW-14D	09/14/2017	ND	0.8000	5.4000
Cobalt, total	ug/L	MW-14D	03/12/2018		3.1000	5.4000
Cobalt, total	ug/L	MW-14D	09/10/2018		2.7000	5.4000
Cobalt, total	ug/L	MW-14D	03/26/2019		4.2000	5.4000
Cobalt, total	ug/L	MW-14D	09/16/2019		3.9000	5.4000
Cobalt, total	ug/L	MW-14D	03/24/2020		3.8000	5.4000
Cobalt, total	ug/L	MW-14D	09/02/2020		2.3000	5.4000
Cobalt, total	ug/L	MW-14D	03/08/2021		3.0000	5.4000
Cobalt, total	ug/L	MW-14D	09/14/2021		4.6000	5.4000
Cobalt, total	ug/L	MW-14D	03/28/2022		0.9000	5.4000
Cobalt, total	ug/L	MW-14D	09/13/2022		8.5000 *	5.4000
Cobalt, total	ug/L	MW-14D	03/23/2023		1.5000	5.4000
Cobalt, total	ug/L	MW-14D	09/05/2023		5.9000 *	5.4000
Cobalt, total	ug/L	MW-14D	11/28/2023		6.1000 *	5.4000
Cobalt, total	ug/L	MW-14D	03/06/2024		4.7000	5.4000
Barium, total	ug/L	MW-17R	09/23/2014		344.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/03/2016		378.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/21/2016		369.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/09/2017		369.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/14/2017		411.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/12/2018		408.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/10/2018		406.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/26/2019		430.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/16/2019		533.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/24/2020		429.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/02/2020		398.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/08/2021		416.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/14/2021		442.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/28/2022		446.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/13/2022		587.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/23/2023		446.0000 *	124.0644
Barium, total	ug/L	MW-17R	09/05/2023		422.0000 *	124.0644
Barium, total	ug/L	MW-17R	03/06/2024		432.0000 *	124.0644
Nickel, total	ug/L	MW-17R	09/23/2014		14.9000 *	11.8000
Nickel, total	ug/L	MW-17R	03/03/2016		16.3000 *	11.8000
Nickel, total	ug/L	MW-17R	09/21/2016		15.2000 *	11.8000
Nickel, total	ug/L	MW-17R	03/09/2017		16.6000 *	11.8000
Nickel, total	ug/L	MW-17R	09/14/2017		20.1000 *	11.8000
Nickel, total	ug/L	MW-17R	12/13/2017		17.2000 *	11.8000
Nickel, total	ug/L	MW-17R	03/12/2018		17.6000 *	11.8000
Nickel, total	ug/L	MW-17R	09/10/2018		18.1000 *	11.8000
Nickel, total	ug/L	MW-17R	03/26/2019		20.3000 *	11.8000
Nickel, total	ug/L	MW-17R	09/16/2019		21.4000 *	11.8000
Nickel, total	ug/L	MW-17R	03/24/2020		19.2000 *	11.8000
Nickel, total	ug/L	MW-17R	09/02/2020		19.0000 *	11.8000
Nickel, total	ug/L	MW-17R	03/08/2021		20.8000 *	11.8000
Nickel, total	ug/L	MW-17R	09/14/2021		21.8000 *	11.8000
Nickel, total	ug/L	MW-17R	03/28/2022		22.3000 *	11.8000
Nickel, total	ug/L	MW-17R	09/13/2022		28.9000 *	11.8000
Nickel, total	ug/L	MW-17R	03/23/2023		22.2000 *	11.8000
Nickel, total	ug/L	MW-17R	09/05/2023		21.4000 *	11.8000
Nickel, total	ug/L	MW-17R	03/06/2024		18.9000 *	11.8000
Arsenic, total	ug/L	MW-28	03/24/2020		72.8000 *	5.8000
Arsenic, total	ug/L	MW-28	09/02/2020	ND	4.0000	5.8000
Arsenic, total	ug/L	MW-28	03/08/2021		13.8000 *	5.8000
Arsenic, total	ug/L	MW-28	10/15/2021		4.3000	5.8000
Arsenic, total	ug/L	MW-28	03/28/2022		38.7000 *	5.8000
Arsenic, total	ug/L	MW-28	09/13/2022		8.2000 *	5.8000
Arsenic, total	ug/L	MW-28	03/23/2023		100.0000 *	5.8000
Arsenic, total	ug/L	MW-28	09/05/2023		8.8000 *	5.8000
Arsenic, total	ug/L	MW-28	03/06/2024		59.7000 *	5.8000
Barium, total	ug/L	MW-28	03/24/2020		1030.0000 *	124.0644
Barium, total	ug/L	MW-28	09/02/2020		655.0000 *	124.0644
Barium, total	ug/L	MW-28	03/08/2021		735.0000 *	124.0644
Barium, total	ug/L	MW-28	10/15/2021		679.0000 *	124.0644
Barium, total	ug/L	MW-28	03/28/2022		1080.0000 *	124.0644
Barium, total	ug/L	MW-28	09/13/2022		865.0000 *	124.0644
Barium, total	ug/L	MW-28	03/23/2023		1570.0000 *	124.0644
Barium, total	ug/L	MW-28	09/05/2023		647.0000 *	124.0644

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

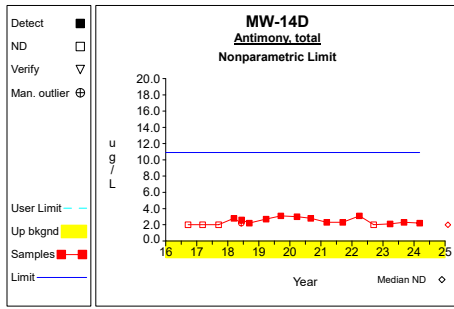
**Table 8**

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

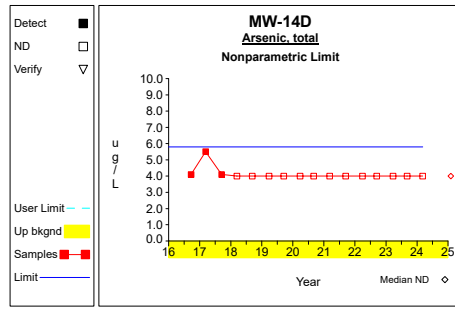
Constituent	Units	Well	Date		Result		Pred. Limit
Barium, total	ug/L	MW-28	03/06/2024		1390.0000	*	124.0644
Cobalt, total	ug/L	MW-28	03/24/2020		38.2000	*	5.4000
Cobalt, total	ug/L	MW-28	09/02/2020		41.9000	*	5.4000
Cobalt, total	ug/L	MW-28	03/08/2021		47.3000	*	5.4000
Cobalt, total	ug/L	MW-28	10/15/2021		40.7000	*	5.4000
Cobalt, total	ug/L	MW-28	03/28/2022		79.3000	*	5.4000
Cobalt, total	ug/L	MW-28	09/13/2022		54.2000	*	5.4000
Cobalt, total	ug/L	MW-28	03/23/2023		82.1000	*	5.4000
Cobalt, total	ug/L	MW-28	09/05/2023		28.6000	*	5.4000
Cobalt, total	ug/L	MW-28	03/06/2024		72.7000	*	5.4000
Nickel, total	ug/L	MW-28	03/24/2020		20.2000	*	11.8000
Nickel, total	ug/L	MW-28	09/02/2020		21.5000	*	11.8000
Nickel, total	ug/L	MW-28	03/08/2021		23.7000	*	11.8000
Nickel, total	ug/L	MW-28	10/15/2021		18.8000	*	11.8000
Nickel, total	ug/L	MW-28	03/28/2022		29.0000	*	11.8000
Nickel, total	ug/L	MW-28	09/13/2022		22.0000	*	11.8000
Nickel, total	ug/L	MW-28	03/23/2023		29.8000	*	11.8000
Nickel, total	ug/L	MW-28	09/05/2023		19.1000	*	11.8000
Nickel, total	ug/L	MW-28	03/06/2024		26.9000	*	11.8000

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

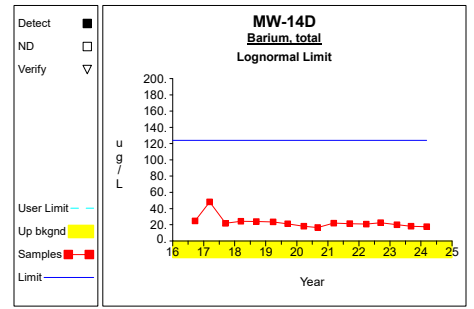
# Up vs. Down Prediction Limits



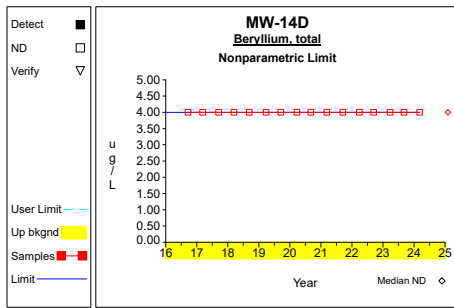
Graph 1



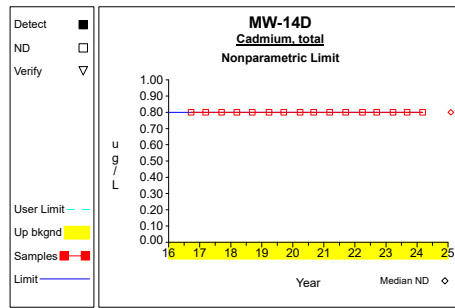
Graph 2



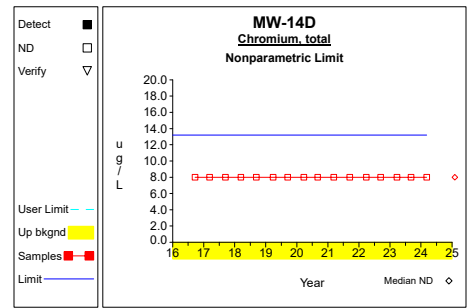
Graph 3



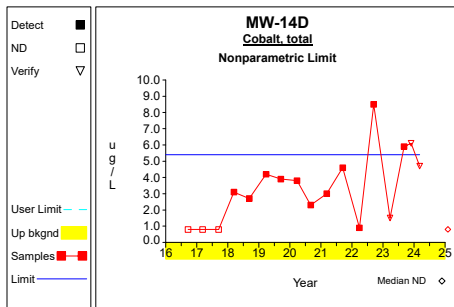
Graph 4



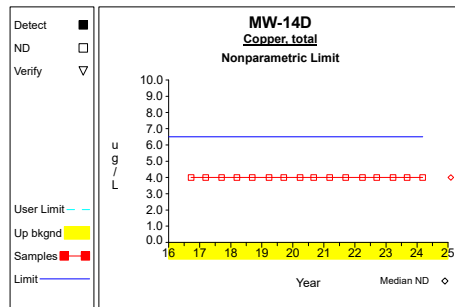
Graph 5



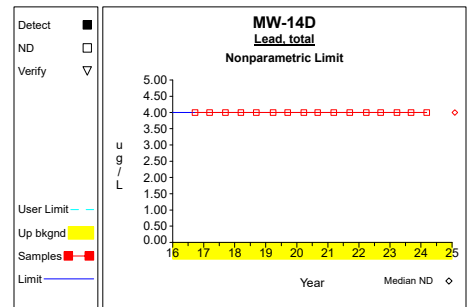
Graph 6



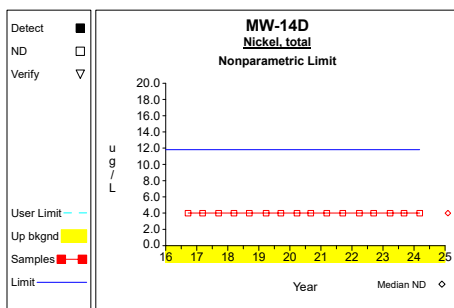
Graph 7



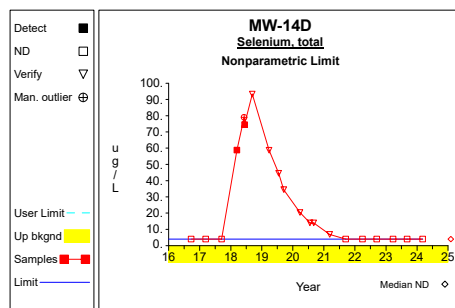
Graph 8



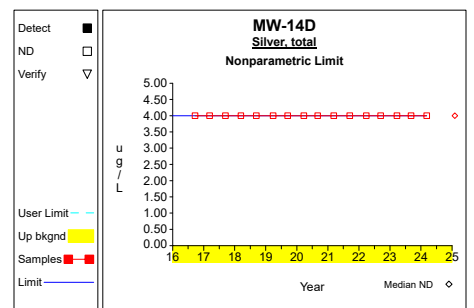
Graph 9



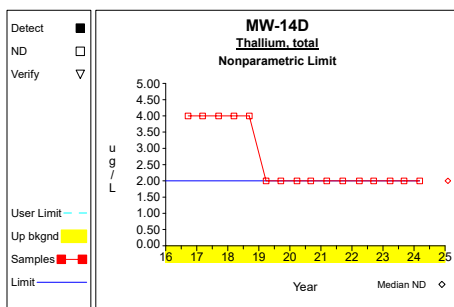
Graph 10



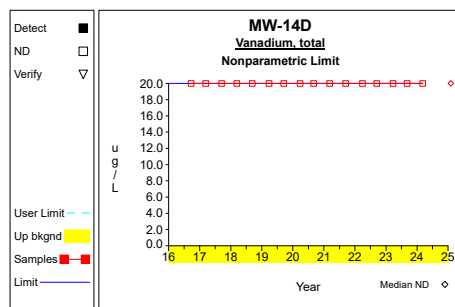
Graph 11



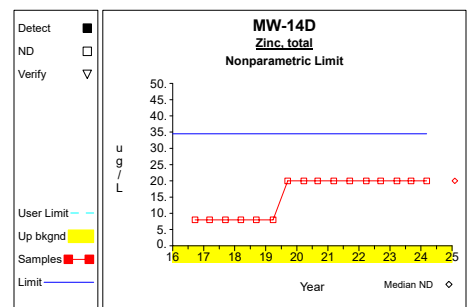
Graph 12



Graph 13



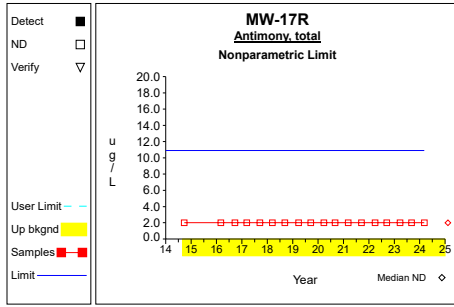
Graph 14



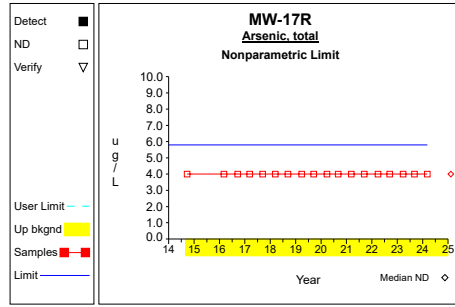
Graph 15



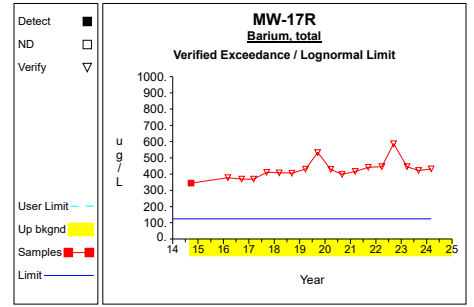
# Up vs. Down Prediction Limits



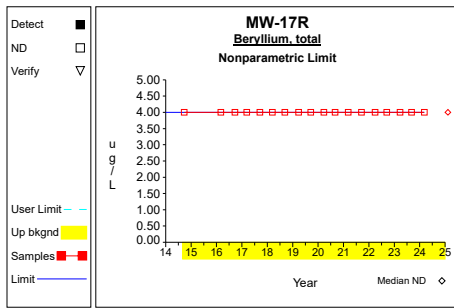
Graph 16



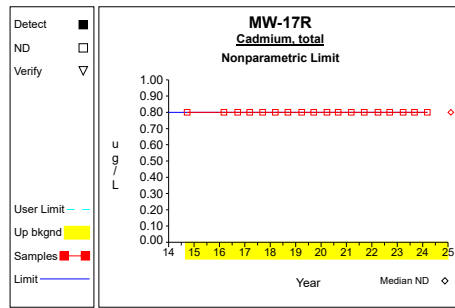
Graph 17



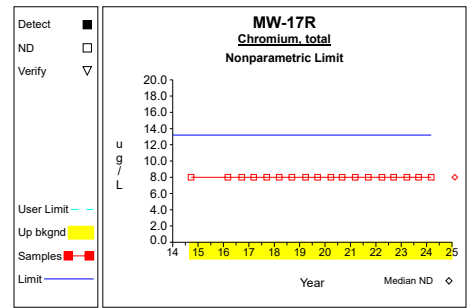
Graph 18



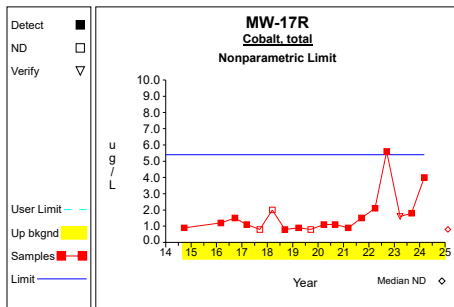
Graph 19



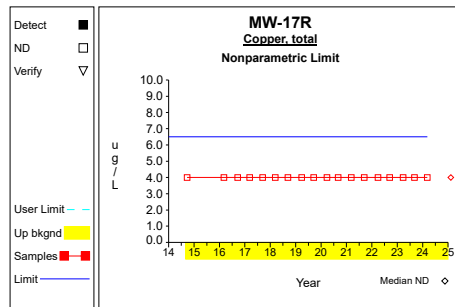
Graph 20



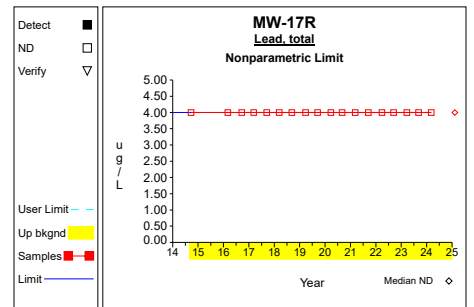
Graph 21



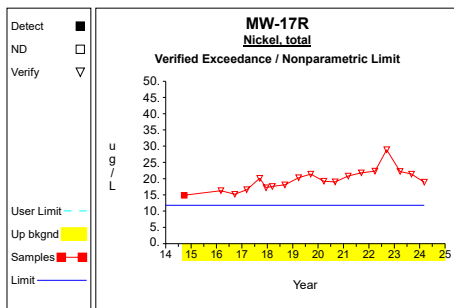
Graph 22



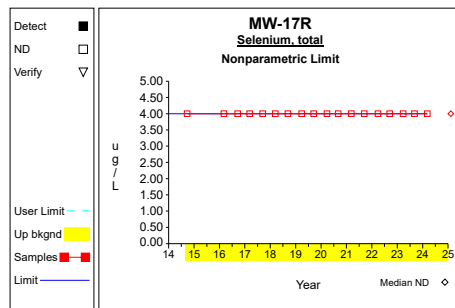
Graph 23



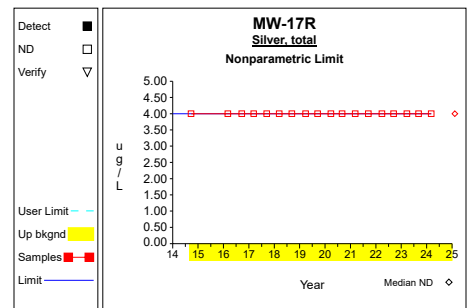
Graph 24



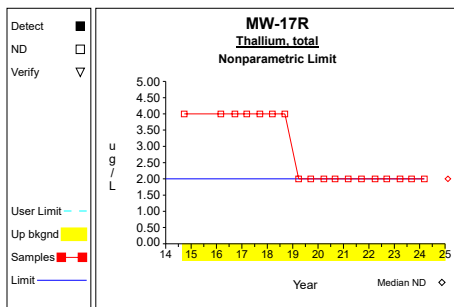
Graph 25



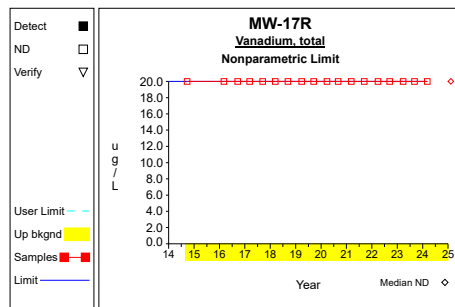
Graph 26



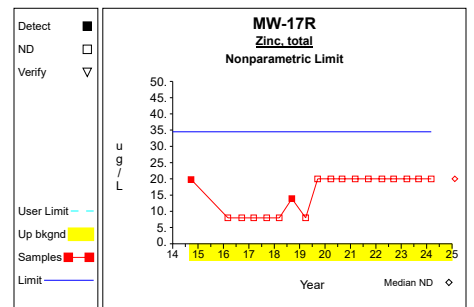
Graph 27



Graph 28

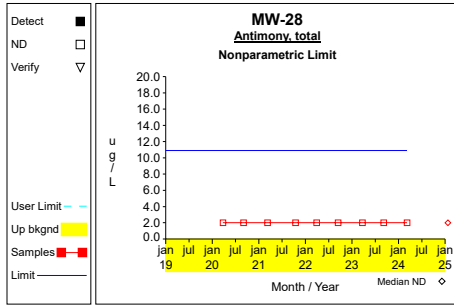


Graph 29

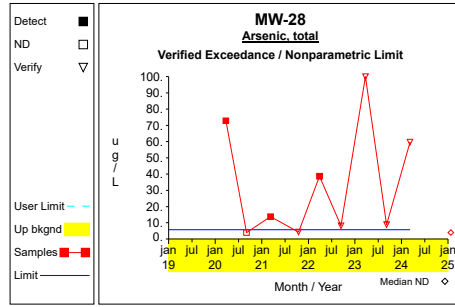


Graph 30

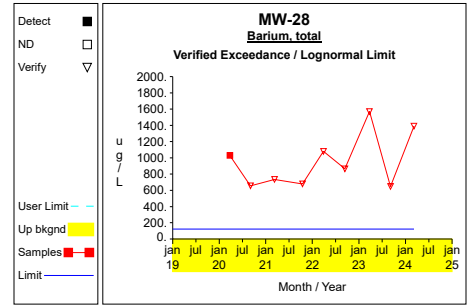
# Up vs. Down Prediction Limits



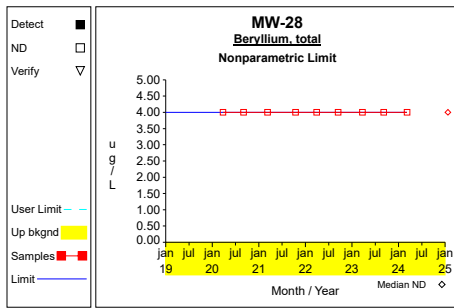
Graph 31



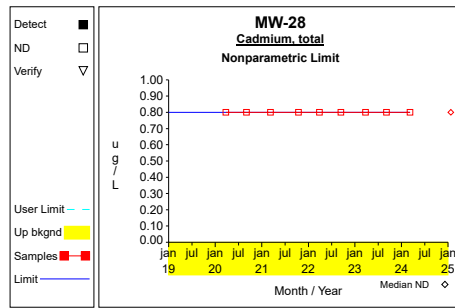
Graph 32



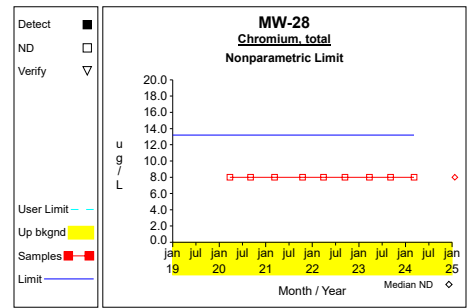
Graph 33



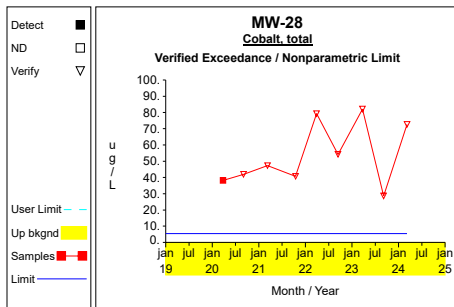
Graph 34



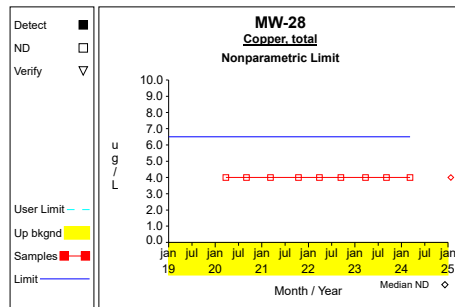
Graph 35



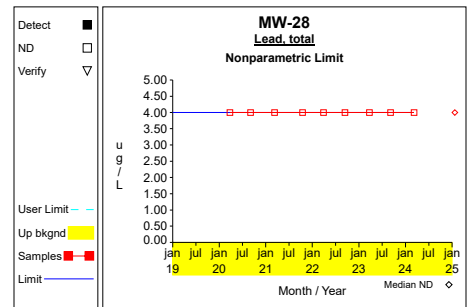
Graph 36



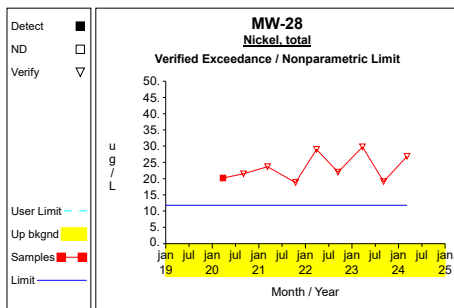
Graph 37



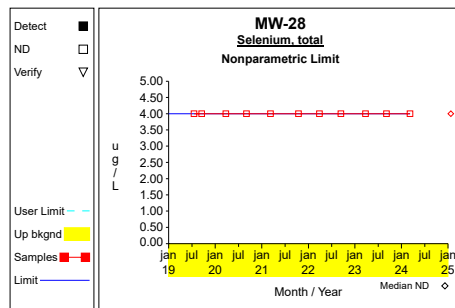
Graph 38



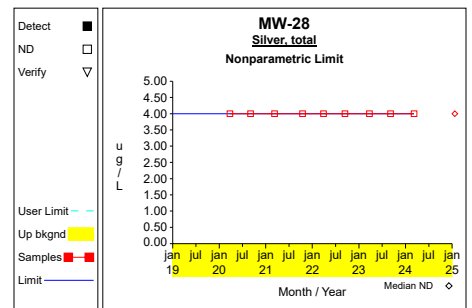
Graph 39



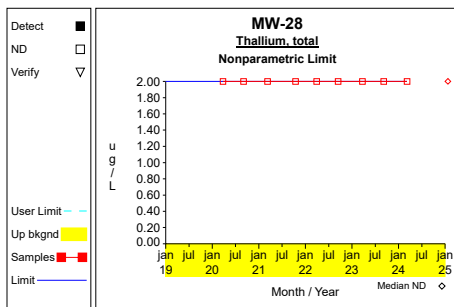
Graph 40



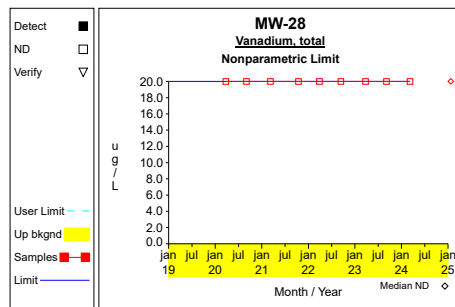
Graph 41



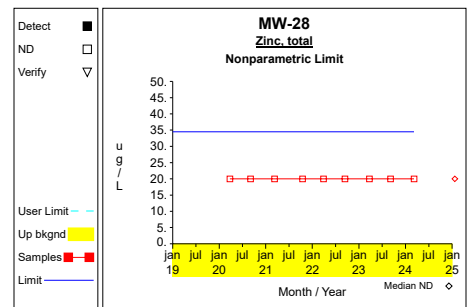
Graph 42



Graph 43

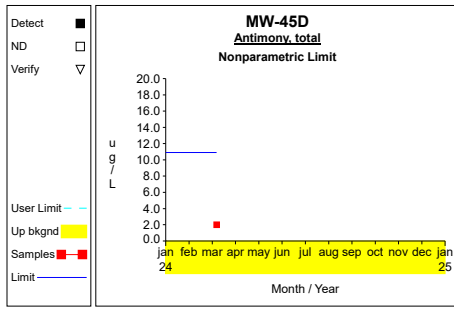


Graph 44

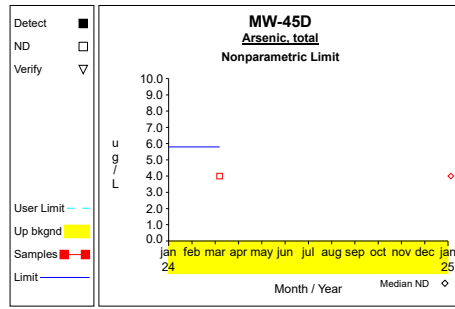


Graph 45

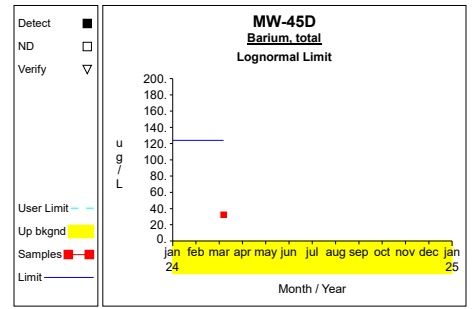
# Up vs. Down Prediction Limits



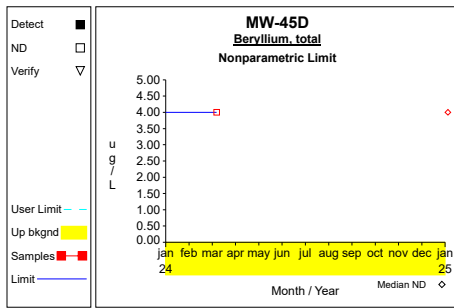
Graph 46



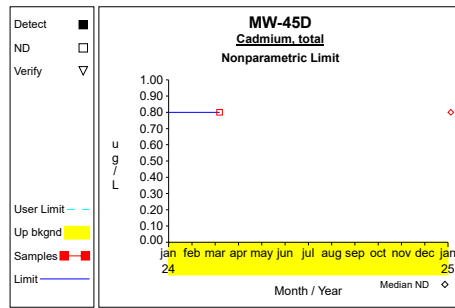
Graph 47



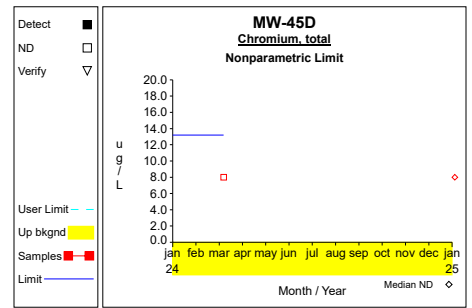
Graph 48



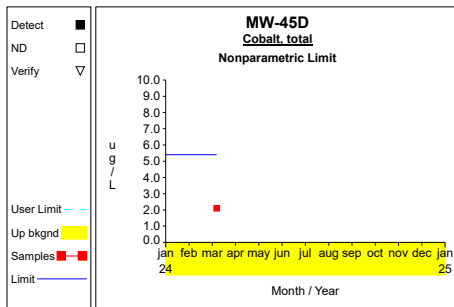
Graph 49



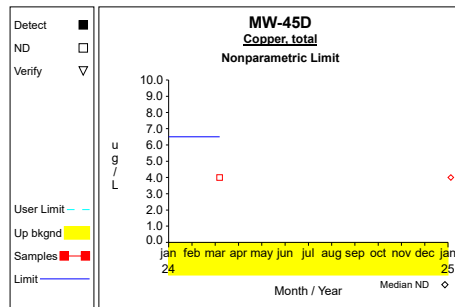
Graph 50



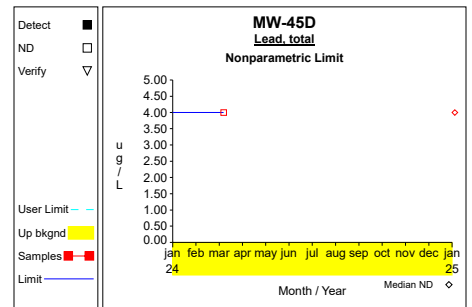
Graph 51



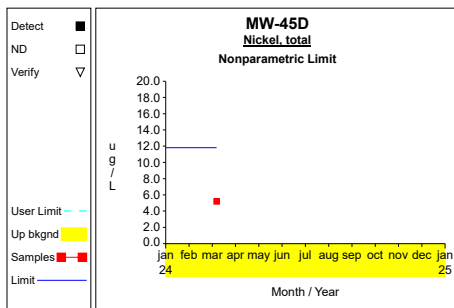
Graph 52



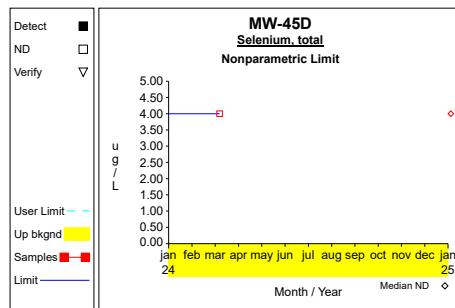
Graph 53



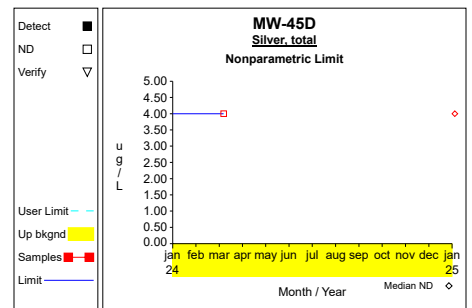
Graph 54



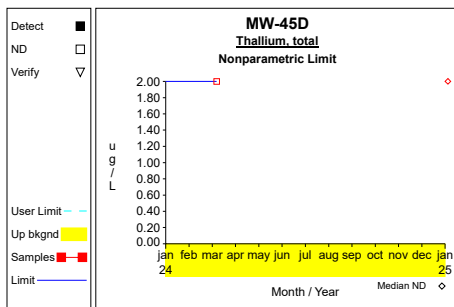
Graph 55



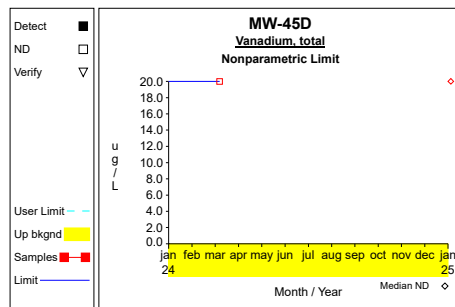
Graph 56



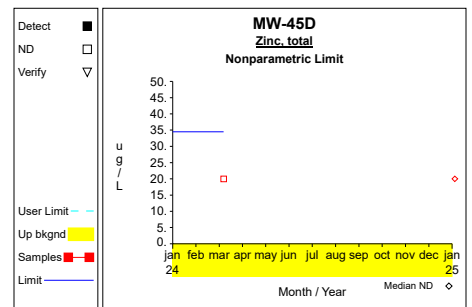
Graph 57



Graph 58

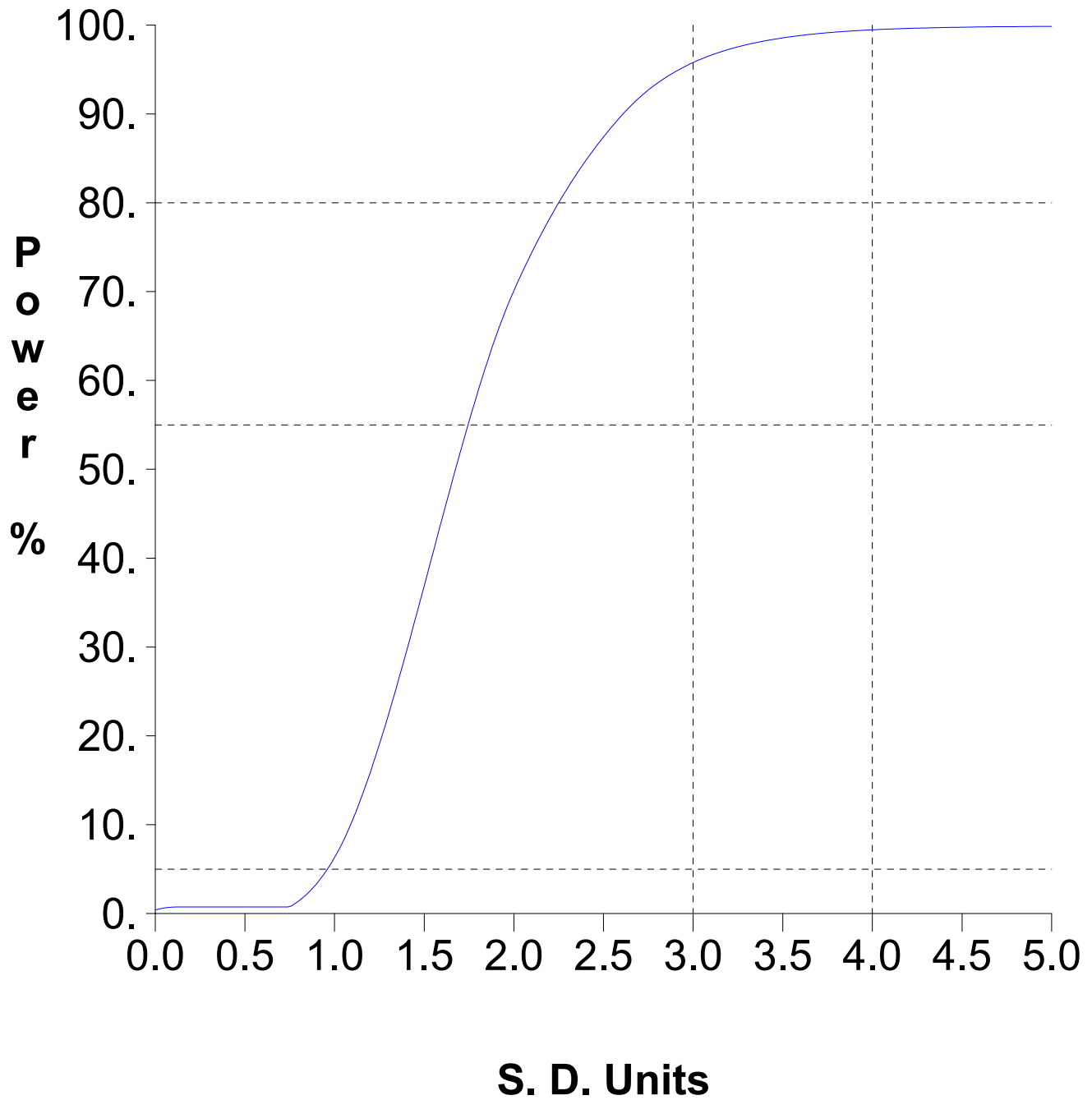


Graph 59



Graph 60

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



**Attachment E**

Assessment Statistics for Verified Trace Metals  
Deep Ground Water

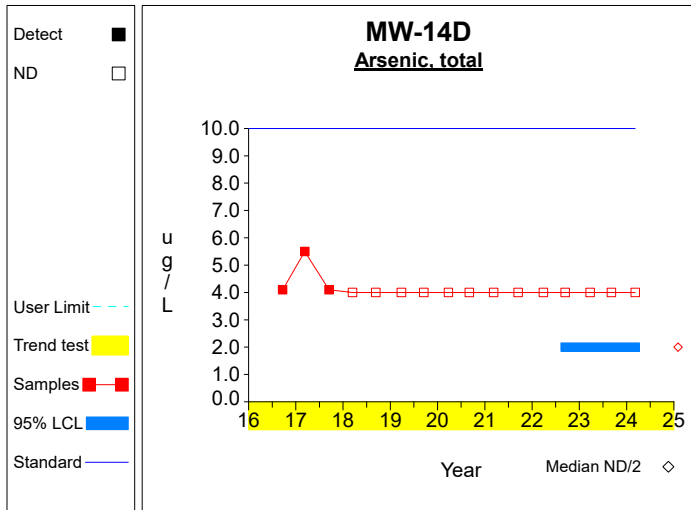
**Table 1**

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

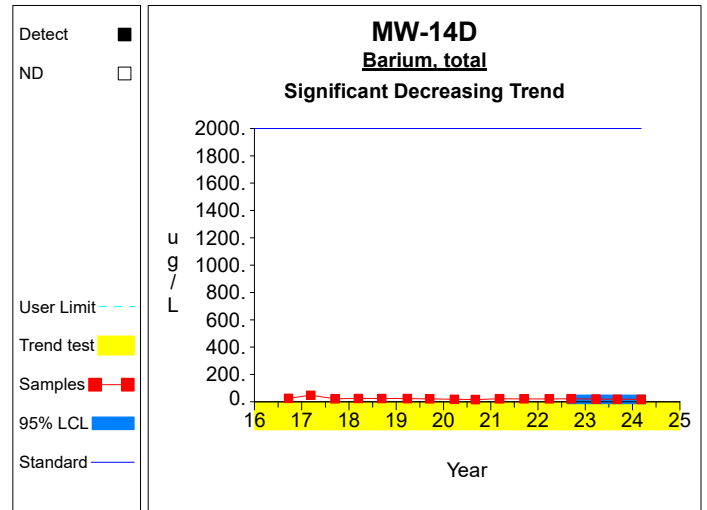
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Arsenic, total	ug/L	MW-14D	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-14D	4	19.625	2.187	1.176	17.053	22.197	2000.000	dec	
Cobalt, total	ug/L	MW-14D	4	4.550	2.125	1.176	2.050	7.050	2.100		
Nickel, total	ug/L	MW-14D	4	2.000	0.000	1.176	2.000	2.000	100.000		
Arsenic, total	ug/L	MW-17R	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-17R	4	471.750	77.461	1.176	380.633	562.867	2000.000	inc	
Cobalt, total	ug/L	MW-17R	4	3.250	1.907	1.176	1.007	5.493	2.100		
Nickel, total	ug/L	MW-17R	4	22.850	4.271	1.176	17.826	27.874	100.000	inc	
Arsenic, total	ug/L	MW-28	4	44.175	44.359	1.176	0.000	96.353	10.000		
Barium, total	ug/L	MW-28	4	1118.000	433.643	1.176	607.911	1628.089	2000.000		
Cobalt, total	ug/L	MW-28	4	59.400	23.579	1.176	31.665	87.135	2.100		**
Nickel, total	ug/L	MW-28	4	24.450	4.805	1.176	18.799	30.101	100.000		

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

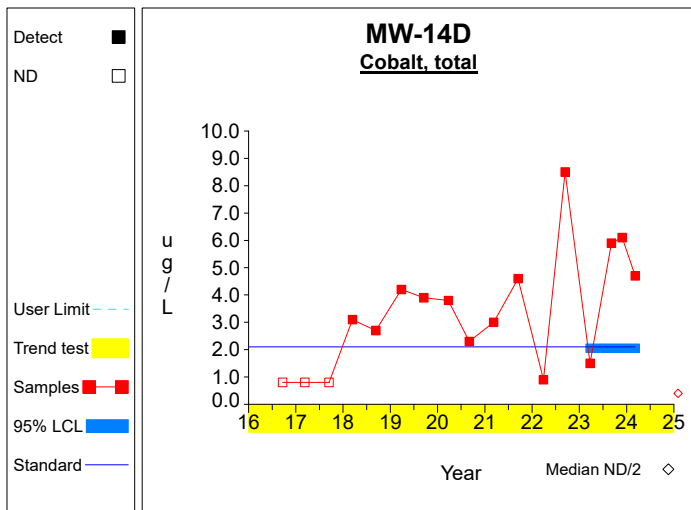
## Confidence Limits (Assessment)



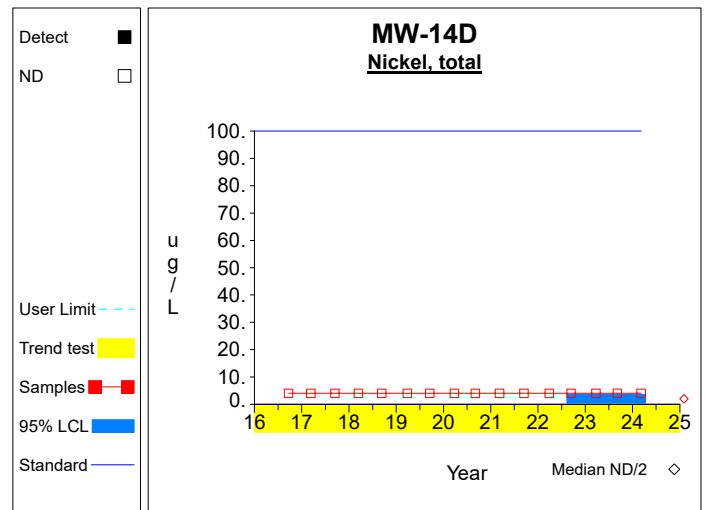
**Graph 1**



**Graph 2**

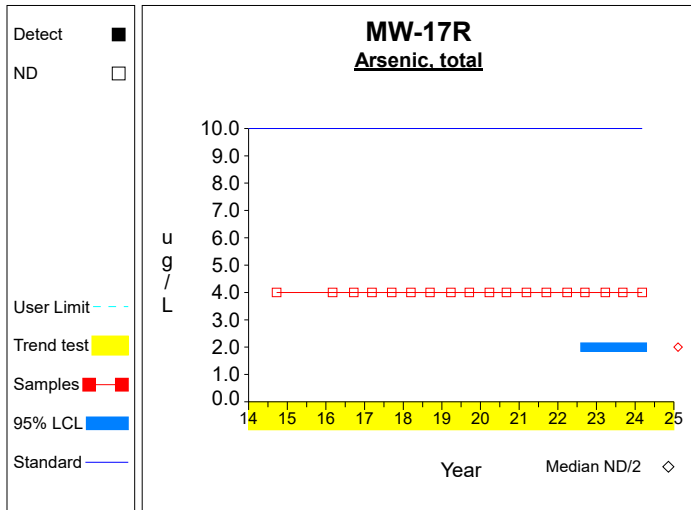


**Graph 3**

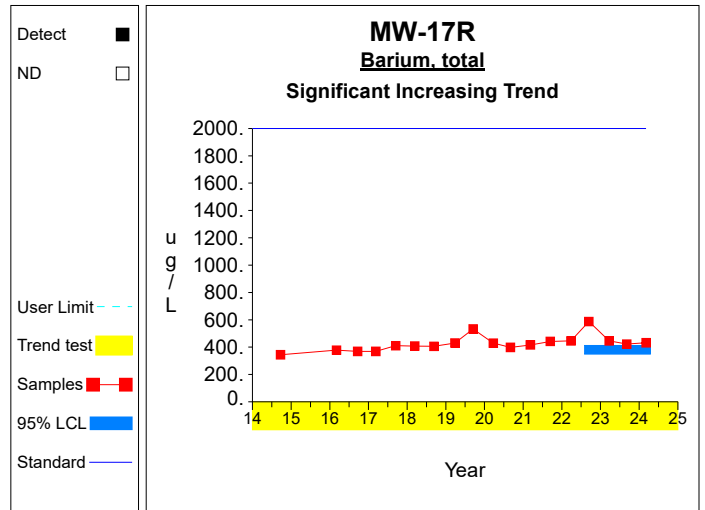


**Graph 4**

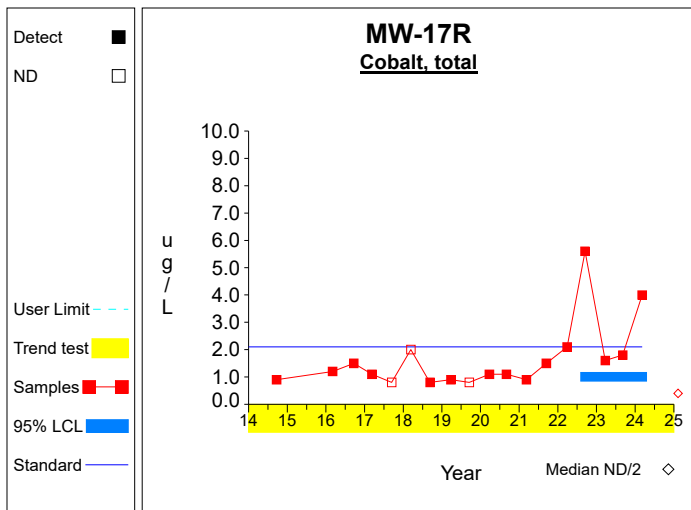
## Confidence Limits (Assessment)



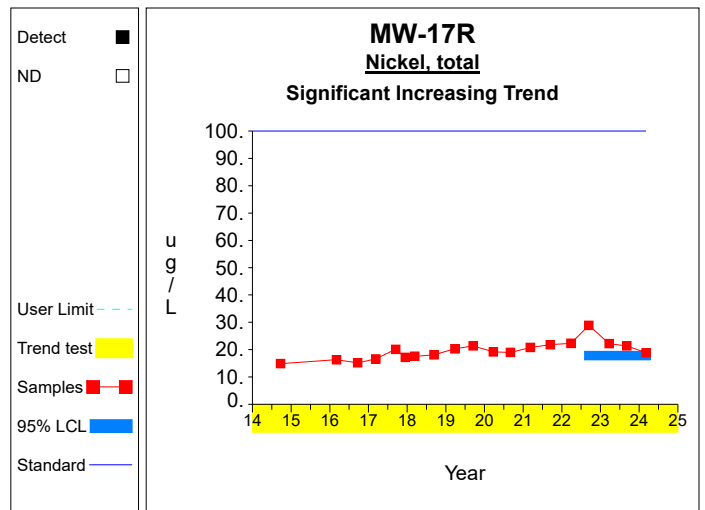
**Graph 5**



**Graph 6**



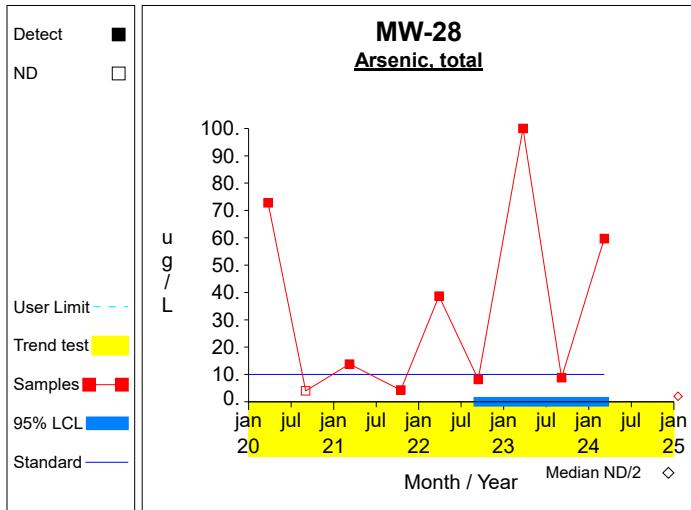
**Graph 7**



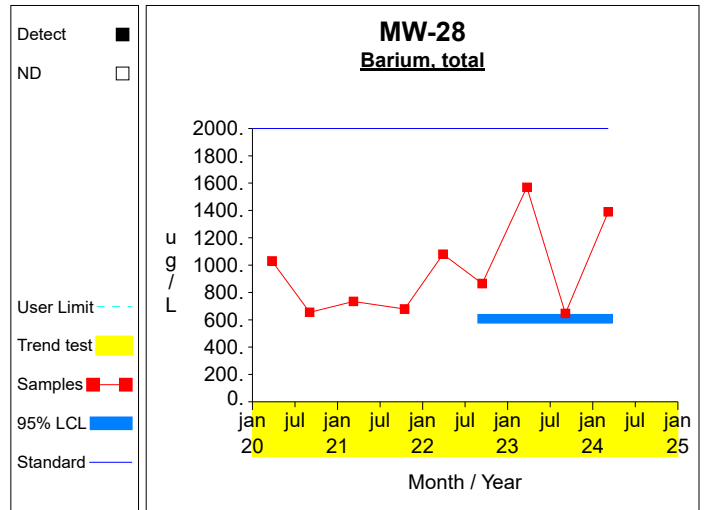
**Graph 8**



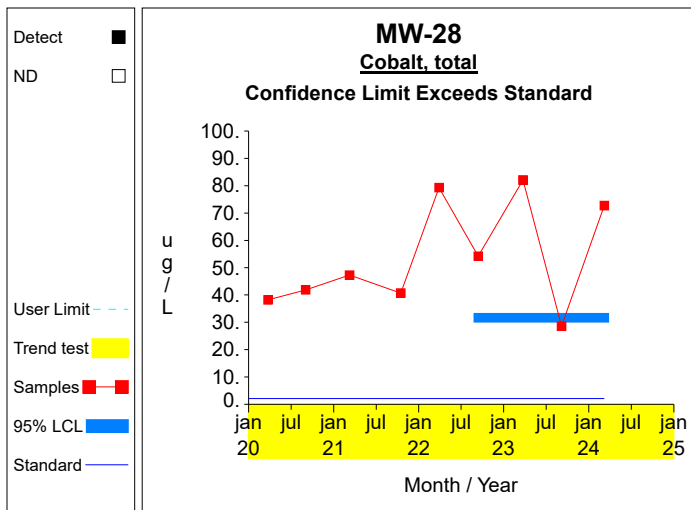
## Confidence Limits (Assessment)



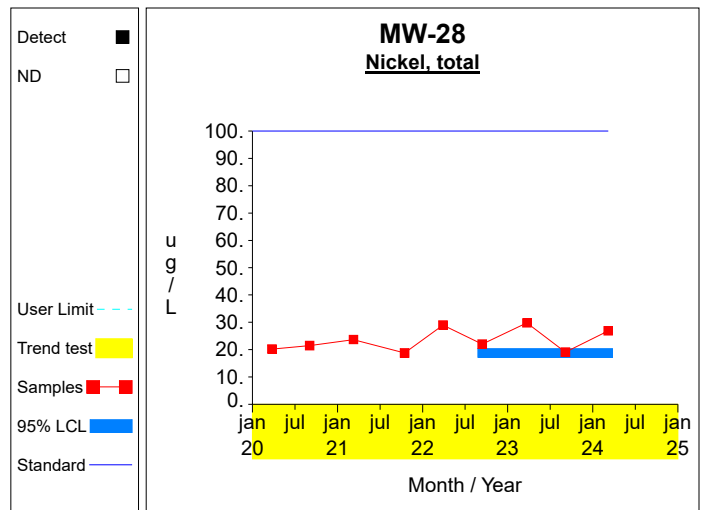
**Graph 9**



**Graph 10**



**Graph 11**

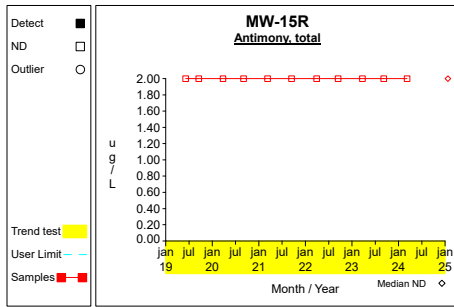


**Graph 12**

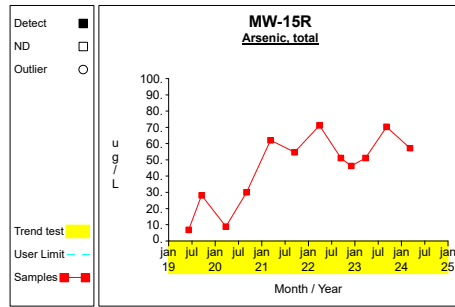
**Attachment F**

Time Series of Trace Metals at Downgradient Attenuation Zone Wells

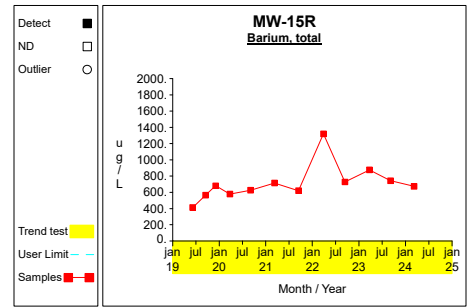
# Time Series



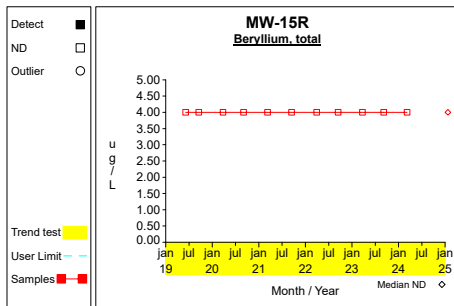
Graph 1



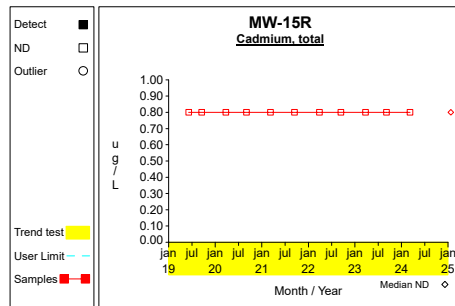
Graph 2



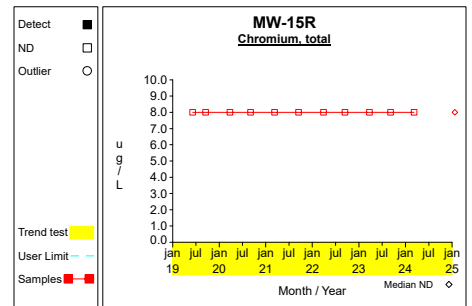
Graph 3



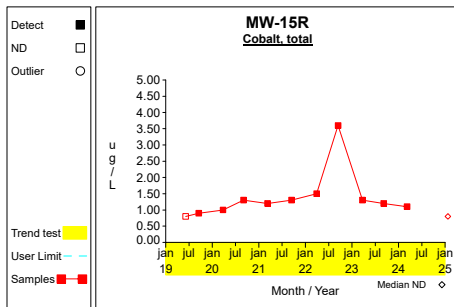
Graph 4



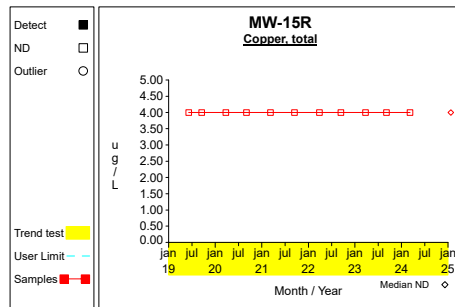
Graph 5



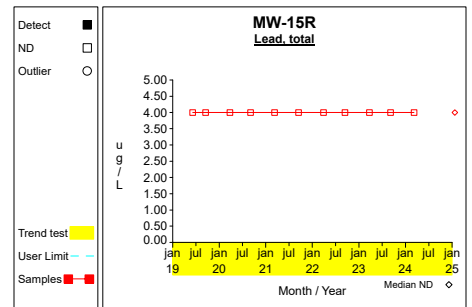
Graph 6



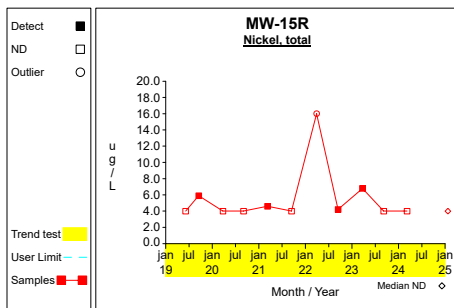
Graph 7



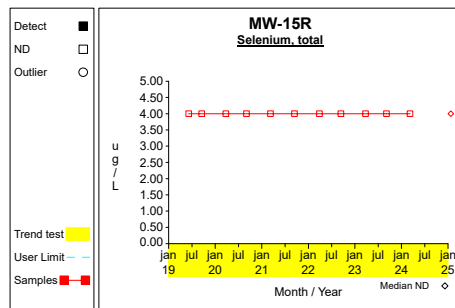
Graph 8



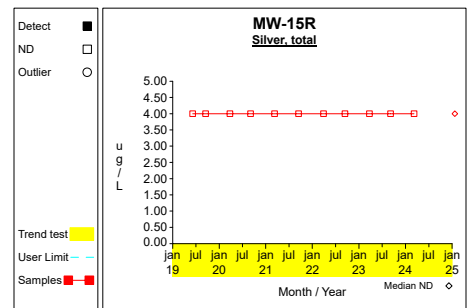
Graph 9



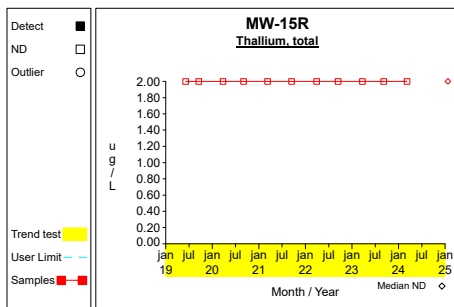
Graph 10



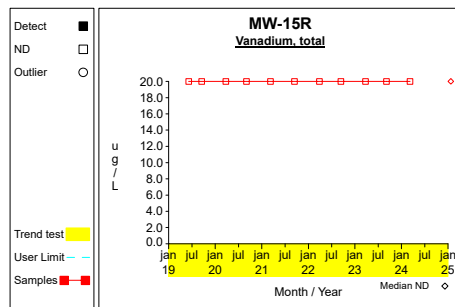
Graph 11



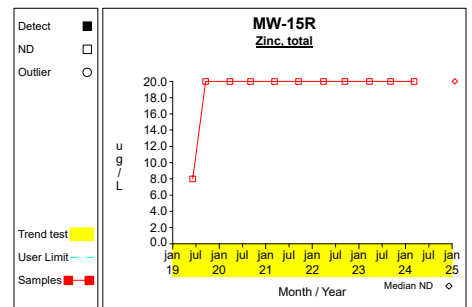
Graph 12



Graph 13

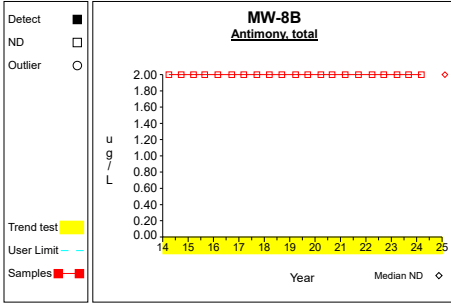


Graph 14

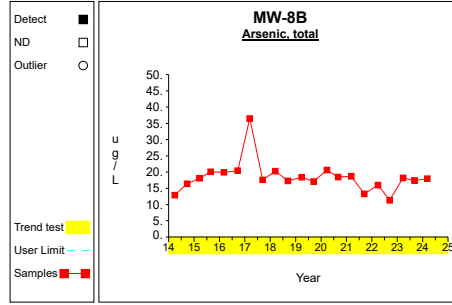


Graph 15

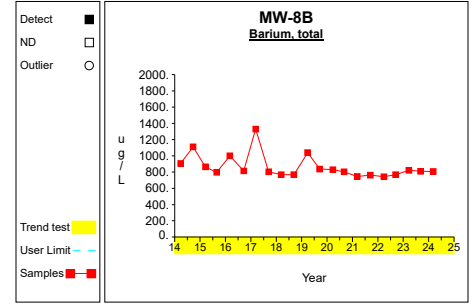
# Time Series



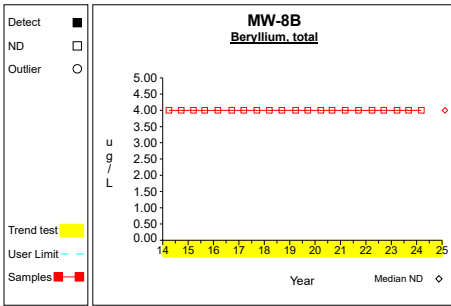
Graph 16



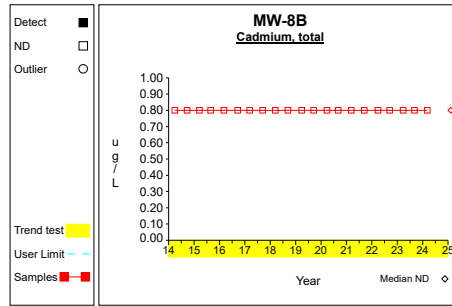
Graph 17



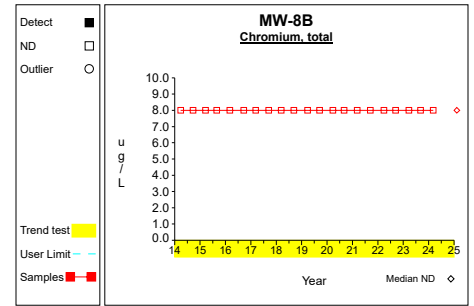
Graph 18



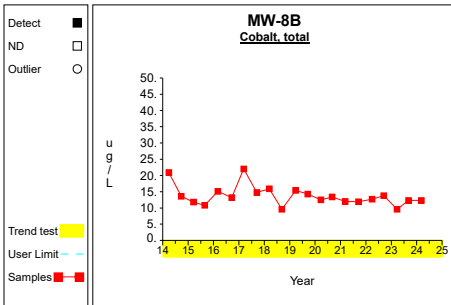
Graph 19



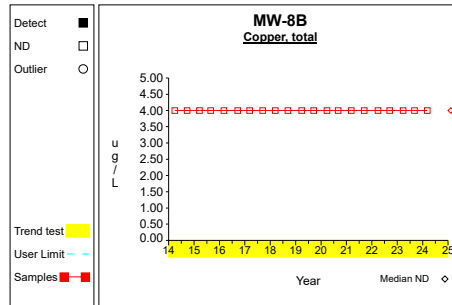
Graph 20



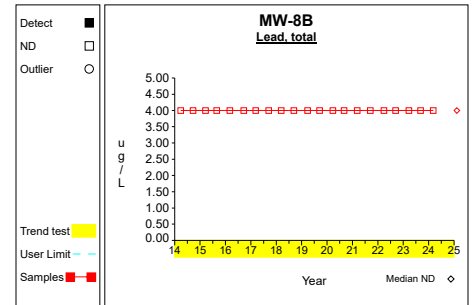
Graph 21



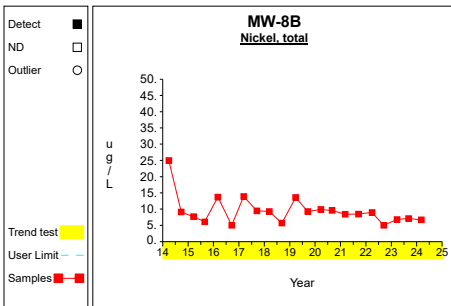
Graph 22



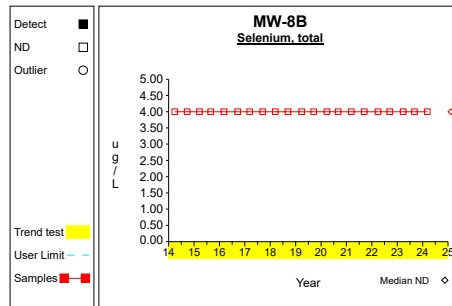
Graph 23



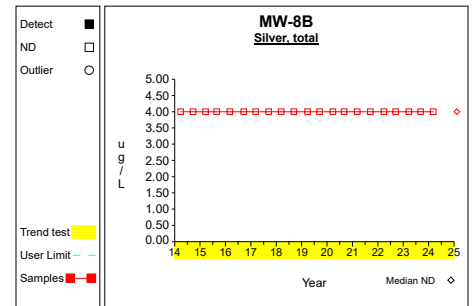
Graph 24



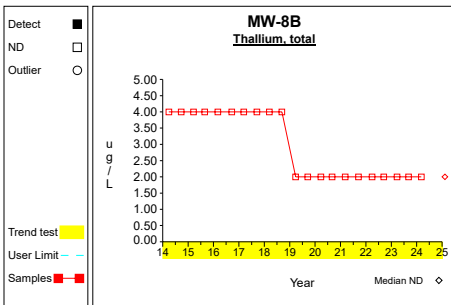
Graph 25



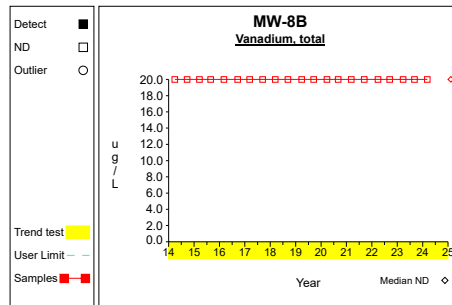
Graph 26



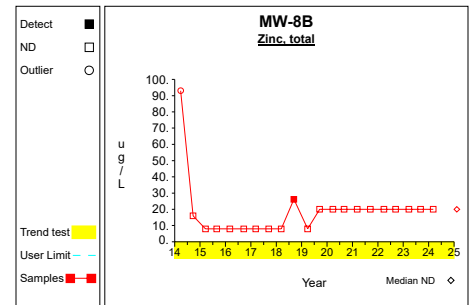
Graph 27



Graph 28

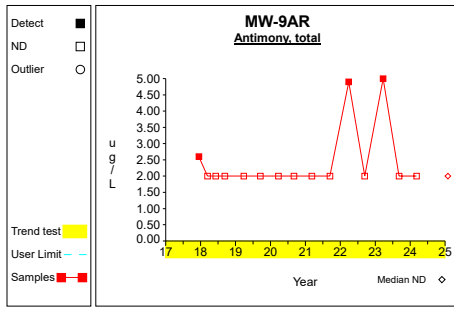


Graph 29

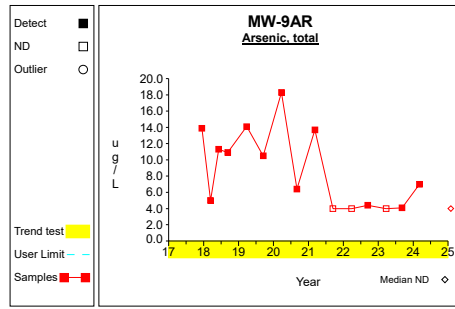


Graph 30

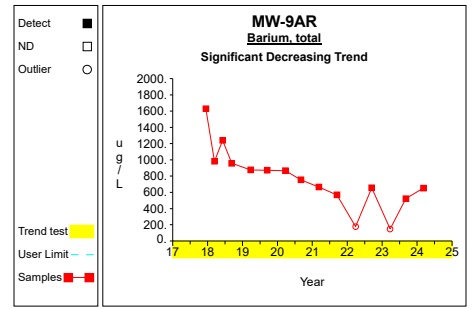
# Time Series



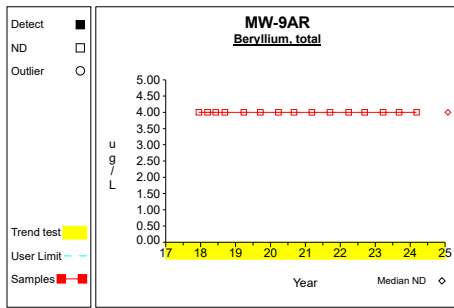
Graph 31



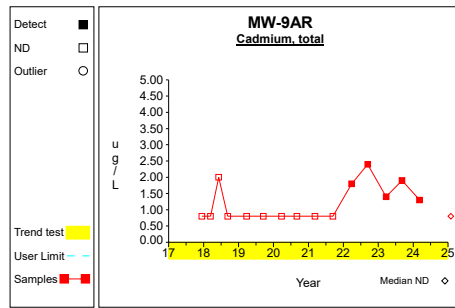
Graph 32



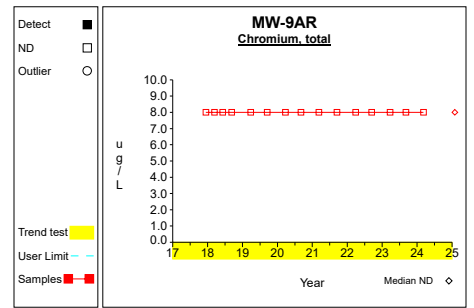
Graph 33



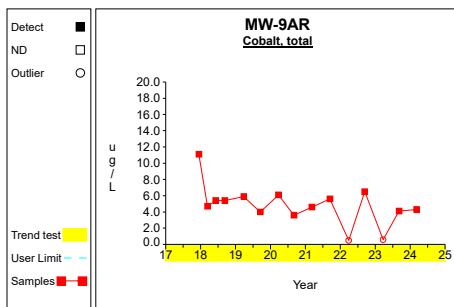
Graph 34



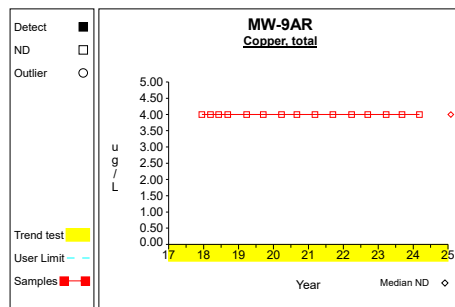
Graph 35



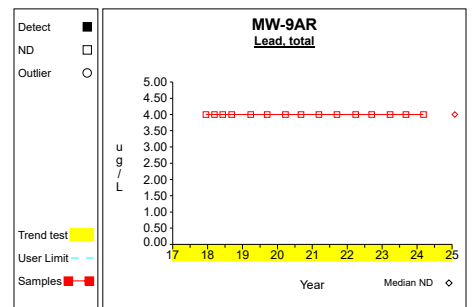
Graph 36



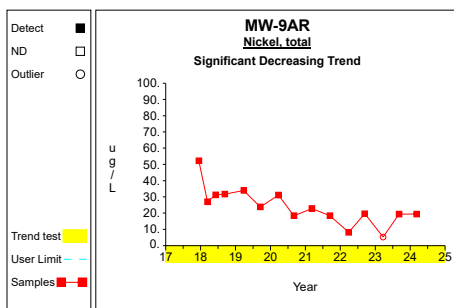
Graph 37



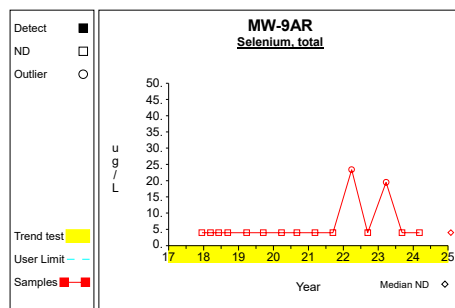
Graph 38



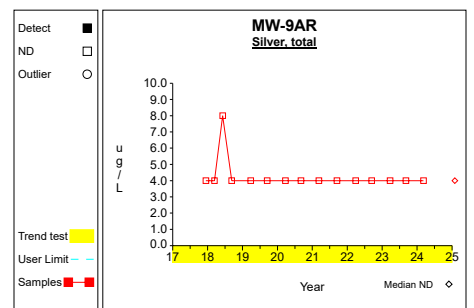
Graph 39



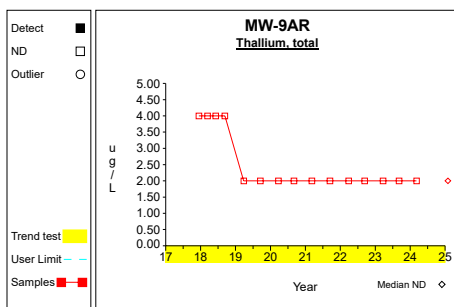
Graph 40



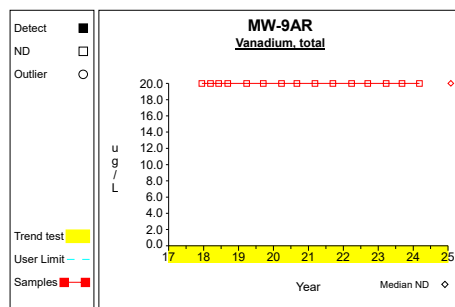
Graph 41



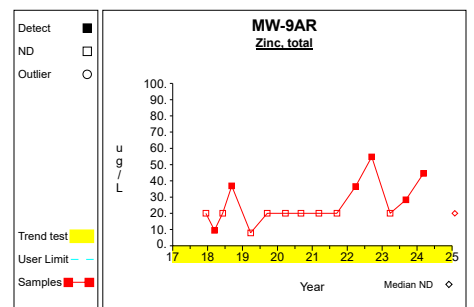
Graph 42



Graph 43



Graph 44



Graph 45

**Attachment G**

Summary of Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,4-dichlorobenzene	L-26	9/02/2020		14.0	1.0	ug/L
1,4-dichlorobenzene	L-26	3/08/2021		8.2	1.0	ug/L
2-butanone (mek)	L-26	9/02/2020		9.4	5.0	ug/L
Acetone	L-26	3/08/2021		13.1	10.0	ug/L
Benzene	L-26	9/02/2020		4.1	1.0	ug/L
Benzene	L-26	3/08/2021		3.3	1.0	ug/L
Chlorobenzene	L-26	9/02/2020		23.9	1.0	ug/L
Chlorobenzene	L-26	3/08/2021		13.3	1.0	ug/L
Ethylbenzene	L-26	9/02/2020		1	1	ug/L
Xylenes, total	L-26	9/02/2020		3.7	2.0	ug/L
Xylenes, total	L-26	3/08/2021		2.6	2.0	ug/L
1,4-dichlorobenzene	LW26	3/28/2022		7.1	1.0	ug/L
1,4-dichlorobenzene	LW26	3/23/2023		5.6	1.0	ug/L
1,4-dichlorobenzene	LW26	4/01/2024		3.7	1.0	ug/L
Benzene	LW26	3/28/2022		2.3	1.0	ug/L
Benzene	LW26	3/23/2023		2.4	1.0	ug/L
Benzene	LW26	4/01/2024		9.7	1.0	ug/L
Chlorobenzene	LW26	3/28/2022		11.5	1.0	ug/L
Chlorobenzene	LW26	3/23/2023		9.2	1.0	ug/L
Chlorobenzene	LW26	4/01/2024		8.2	1.0	ug/L
Toluene	LW26	3/23/2023		1.5	1.0	ug/L
Xylenes, total	LW26	3/23/2023		2.8	2.0	ug/L
Acetone	MW-11C	9/14/2017		14.2	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-14D	3/06/2024		10	6	ug/L
Chloroform	MW-14D	9/24/2014		1.6	1.0	ug/L
Chloroform	MW-14D	12/02/2014		1.5	1.0	ug/L
Chloroform	MW-14D	9/05/2023		1.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-14D	9/24/2014		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-14D	12/02/2014		8.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-14D	3/03/2016		1.4	1.0	ug/L
Acetone	MW-17R	9/14/2017		13.3	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-17R	3/28/2022		13	6	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/23/2014		1.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/18/2015		6.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	8/27/2015		3.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/03/2016		3.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/21/2016		2.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/09/2017		6.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/14/2017		2.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/12/2018		3.5	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/10/2018		2.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/26/2019		3.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/16/2019		4.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/24/2020		4.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/02/2020		3.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/08/2021		3.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/14/2021		4.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/28/2022		4.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/13/2022		3.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/23/2023		2.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/05/2023		3.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/06/2024		1.1	1.0	ug/L
Trans-1,2-dichloroethylene	MW-17R	3/12/2018		3.3	1.0	ug/L
Acetone	MW-21	9/14/2017		12	10	ug/L
Cis-1,2-dichloroethylene	MW-28	9/24/2014		4.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	12/02/2014		3.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/19/2015		3.5	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	8/27/2015		2.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	12/10/2015		3.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	2/11/2016		5.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/04/2016		14.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	5/10/2016		7.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/20/2016		5.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/09/2017		15.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/14/2017		15.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/12/2018		21.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/10/2018		12.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/26/2019		17.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/16/2019		13.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/24/2020		15.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/02/2020		17.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/08/2021		10.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	10/15/2021		21.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/28/2022		15.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/13/2022		14.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/23/2023		10.0	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
Cis-1,2-dichloroethylene	MW-28	9/05/2023		12.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/06/2024		9.2	1.0	ug/L
Trans-1,2-dichloroethylene	MW-28	3/12/2018		20.2	1.0	ug/L
Trans-1,2-dichloroethylene	MW-28	9/02/2020		1.1	1.0	ug/L
Vinyl chloride	MW-28	3/04/2016		1.4	1.0	ug/L
Vinyl chloride	MW-28	3/09/2017		1.8	1.0	ug/L
Vinyl chloride	MW-28	9/14/2017		1.1	1.0	ug/L
Vinyl chloride	MW-28	3/12/2018		2.0	1.0	ug/L
Vinyl chloride	MW-28	3/26/2019		1.4	1.0	ug/L
Vinyl chloride	MW-28	9/02/2020		1.5	1.0	ug/L
Vinyl chloride	MW-28	10/15/2021		1.6	1.0	ug/L
Vinyl chloride	MW-28	3/28/2022		1.5	1.0	ug/L
Vinyl chloride	MW-28	3/23/2023		1.2	1.0	ug/L
Chlorobenzene	MW-32	3/03/2016		1.8	1.0	ug/L
Chlorobenzene	MW-32	9/20/2016		1.6	1.0	ug/L
Chlorobenzene	MW-32	3/09/2017		2.7	1.0	ug/L
Chlorobenzene	MW-32	9/14/2017		2.7	1.0	ug/L
Chlorobenzene	MW-32	3/12/2018		3.9	1.0	ug/L
Chlorobenzene	MW-32	9/10/2018		1.7	1.0	ug/L
Chlorobenzene	MW-32	3/26/2019		1.1	1.0	ug/L
Chlorobenzene	MW-32	9/16/2019		3.0	1.0	ug/L
Chlorobenzene	MW-32	3/24/2020		2.8	1.0	ug/L
Chlorobenzene	MW-32	9/02/2020		2.0	1.0	ug/L
Chlorobenzene	MW-32	3/08/2021		1.2	1.0	ug/L
Chlorobenzene	MW-32	3/28/2022		2.5	1.0	ug/L
Chlorobenzene	MW-32	3/06/2024		2.2	1.0	ug/L
Chloromethane	MW-32	9/14/2017		1.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/24/2014		2.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/19/2015		2.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/03/2016		2.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/20/2016		1.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/09/2017		2.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/14/2017		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/26/2019		1.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/16/2019		2.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/24/2020		1.5	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/28/2022		1.0	1.0	ug/L
Vinyl chloride	MW-32	9/24/2014		2.1	1.0	ug/L
Vinyl chloride	MW-32	3/19/2015		2.2	1.0	ug/L
Vinyl chloride	MW-32	3/03/2016		1.8	1.0	ug/L
Vinyl chloride	MW-32	3/09/2017		1.2	1.0	ug/L
Acetone	MW-44	7/12/2023		11.1	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-44	3/06/2024		14	6	ug/L
Toluene	MW-44	9/05/2023		2.2	1.0	ug/L
Acetone	MW-8B	9/20/2013		11.7	10.0	ug/L
Acetone	MW-8B	3/23/2023		12.2	10.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	4/22/2009		1.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	1/27/2010		1.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	3/19/2010		1.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	9/14/2010		1.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	3/28/2014		1.1	1.0	ug/L
Trichloroethylene	MW-8B	7/21/1992		2.10	.17	ug/L
Trichloroethylene	MW-8B	10/21/1992		2.10	.17	ug/L
1,1-dichloroethane	MW-9AR	12/13/2017		2.1	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/12/2018		2.1	1.0	ug/L
1,1-dichloroethane	MW-9AR	6/06/2018		1.6	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/10/2018		1.9	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/26/2019		1.7	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/16/2019		1.5	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/24/2020		1.5	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/02/2020		1.4	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/08/2021		1.4	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/14/2021		1.4	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/28/2022		1.3	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/13/2022		1.2	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/05/2023		1.5	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/06/2024		1.3	1.0	ug/L
1,2-dichloropropane	MW-9AR	3/12/2018		1.1	1.0	ug/L
1,2-dichloropropane	MW-9AR	9/14/2021		1.0	1.0	ug/L
1,2-dichloropropane	MW-9AR	3/28/2022		1.4	1.0	ug/L
1,2-dichloropropane	MW-9AR	3/23/2023		1.3	1.0	ug/L
1,2-dichloropropane	MW-9AR	3/06/2024		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	6/06/2018		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	9/10/2018		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	3/26/2019		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	3/06/2024		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
Benzene	MW-9AR	12/13/2017		2.4	1.0	ug/L
Benzene	MW-9AR	3/12/2018		2.6	1.0	ug/L
Benzene	MW-9AR	6/06/2018		2.8	1.0	ug/L
Benzene	MW-9AR	9/10/2018		3.2	1.0	ug/L
Benzene	MW-9AR	3/26/2019		2.0	1.0	ug/L
Benzene	MW-9AR	9/16/2019		1.6	1.0	ug/L
Benzene	MW-9AR	3/24/2020		1.5	1.0	ug/L
Benzene	MW-9AR	9/02/2020		2.0	1.0	ug/L
Benzene	MW-9AR	3/08/2021		1.4	1.0	ug/L
Benzene	MW-9AR	9/14/2021		1.2	1.0	ug/L
Benzene	MW-9AR	9/13/2022		2.1	1.0	ug/L
Benzene	MW-9AR	9/05/2023		2.0	1.0	ug/L
Benzene	MW-9AR	3/06/2024		2.4	1.0	ug/L
Carbon disulfide	MW-9AR	3/24/2020		1.2	1.0	ug/L
Chlorobenzene	MW-9AR	12/13/2017		1.7	1.0	ug/L
Chlorobenzene	MW-9AR	3/12/2018		1.5	1.0	ug/L
Chlorobenzene	MW-9AR	6/06/2018		4.4	1.0	ug/L
Chlorobenzene	MW-9AR	9/10/2018		4.7	1.0	ug/L
Chlorobenzene	MW-9AR	3/26/2019		4.3	1.0	ug/L
Chlorobenzene	MW-9AR	9/16/2019		5.5	1.0	ug/L
Chlorobenzene	MW-9AR	3/24/2020		3.8	1.0	ug/L
Chlorobenzene	MW-9AR	9/02/2020		5.9	1.0	ug/L
Chlorobenzene	MW-9AR	3/08/2021		3.6	1.0	ug/L
Chlorobenzene	MW-9AR	9/14/2021		3.4	1.0	ug/L
Chlorobenzene	MW-9AR	9/13/2022		3.0	1.0	ug/L
Chlorobenzene	MW-9AR	9/05/2023		5.8	1.0	ug/L
Chlorobenzene	MW-9AR	3/06/2024		5.8	1.0	ug/L
Chloroethane	MW-9AR	9/10/2018		2.6	1.0	ug/L
Chloroethane	MW-9AR	3/26/2019		1.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	12/13/2017		120.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/12/2018		94.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	6/06/2018		58.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/10/2018		69.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/26/2019		58.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/16/2019		82.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/24/2020		70.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/02/2020		83.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/08/2021		99.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/14/2021		102.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/28/2022		148.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/13/2022		88.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/23/2023		70.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/05/2023		70.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/06/2024		58.9	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	12/13/2017		6.8	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/12/2018		86.4	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	6/06/2018		4.2	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/10/2018		5.3	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/26/2019		3.3	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/16/2019		4.5	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/24/2020		4.3	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/02/2020		5.8	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/08/2021		4.4	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/14/2021		4.0	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/28/2022		4.6	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/13/2022		6.8	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/23/2023		4.4	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/05/2023		5.0	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/06/2024		5.1	1.0	ug/L
Trichloroethylene	MW-9AR	3/12/2018		1.7	1.0	ug/L
Trichloroethylene	MW-9AR	6/06/2018		1.3	1.0	ug/L
Trichloroethylene	MW-9AR	9/10/2018		1.3	1.0	ug/L
Trichloroethylene	MW-9AR	3/26/2019		1.9	1.0	ug/L
Trichloroethylene	MW-9AR	3/24/2020		1.4	1.0	ug/L
Trichloroethylene	MW-9AR	9/02/2020		1.9	1.0	ug/L
Trichloroethylene	MW-9AR	3/08/2021		2.2	1.0	ug/L
Trichloroethylene	MW-9AR	9/14/2021		2.7	1.0	ug/L
Trichloroethylene	MW-9AR	3/28/2022		9.0	1.0	ug/L
Trichloroethylene	MW-9AR	9/13/2022		1.7	1.0	ug/L
Trichloroethylene	MW-9AR	3/23/2023		7.4	1.0	ug/L
Trichloroethylene	MW-9AR	9/05/2023		2.4	1.0	ug/L
Trichloroethylene	MW-9AR	3/06/2024		1.7	1.0	ug/L
Vinyl chloride	MW-9AR	12/13/2017		19.7	1.0	ug/L
Vinyl chloride	MW-9AR	3/12/2018		31.5	1.0	ug/L
Vinyl chloride	MW-9AR	6/06/2018		39.2	1.0	ug/L
Vinyl chloride	MW-9AR	9/10/2018		50.7	1.0	ug/L

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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Vinyl chloride	MW-9AR	3/26/2019		24.7	1.0	ug/L
Vinyl chloride	MW-9AR	9/16/2019		27.6	1.0	ug/L
Vinyl chloride	MW-9AR	3/24/2020		30.4	1.0	ug/L
Vinyl chloride	MW-9AR	9/02/2020		33.5	1.0	ug/L
Vinyl chloride	MW-9AR	3/08/2021		24.4	1.0	ug/L
Vinyl chloride	MW-9AR	9/14/2021		24.1	1.0	ug/L
Vinyl chloride	MW-9AR	3/28/2022		1.4	1.0	ug/L
Vinyl chloride	MW-9AR	9/13/2022		39.3	1.0	ug/L
Vinyl chloride	MW-9AR	3/23/2023		1.2	1.0	ug/L
Vinyl chloride	MW-9AR	9/05/2023		32.8	1.0	ug/L
Vinyl chloride	MW-9AR	3/06/2024		45.1	1.0	ug/L
Cis-1,2-dichloroethylene	SW-1	9/16/2019		1.2	1.0	ug/L
Acetone	SW-101	9/14/2017		13.7	10.0	ug/L
Bis(2-ethylhexyl) phthalate	SW-101	3/09/2017		25	8	ug/L
Acetone	SW-102	9/14/2017		12.3	10.0	ug/L
Cis-1,2-dichloroethylene	SW-102	9/26/2011		2	1	ug/L
Acetone	SW-103	9/14/2017		16.6	10.0	ug/L
Cis-1,2-dichloroethylene	SW-103	9/24/2014		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	12/02/2014		6.8	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/19/2015		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/04/2016		25.2	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	5/10/2016		6.6	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/09/2017		1.7	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	9/14/2017		2.2	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/12/2018		4.5	1.0	ug/L
Vinyl chloride	SW-103	12/02/2014		11.5	1.0	ug/L
Vinyl chloride	SW-103	3/04/2016		10.7	1.0	ug/L
Vinyl chloride	SW-103	3/09/2017		1.6	1.0	ug/L
Vinyl chloride	SW-103	9/14/2017		5.4	1.0	ug/L
Vinyl chloride	SW-103	3/12/2018		3.2	1.0	ug/L
Cis-1,2-dichloroethylene	SW-106	3/03/2016		1	1	ug/L
2-butanone (mek)	SW-2B	10/29/2009		237	5	ug/L
Acetone	SW-2B	10/29/2009		124	10	ug/L
Trichloroethylene	SW-2B	6/15/2005		1.61	.17	ug/L
1,4-dichlorobenzene	TILE 1	9/20/2016		1.3	1.0	ug/L
1,4-dichlorobenzene	TILE 1	11/09/2016		1.8	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/09/2017		2.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/14/2017		4.5	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/12/2018		5.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/10/2018		1.7	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/26/2019		1.8	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/24/2020		1.8	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/02/2020		3.7	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/08/2021		1.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/14/2021		2.5	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/28/2022		1.4	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/13/2022		2.3	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/23/2023		1.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/05/2023		4.5	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/06/2024		1.8	1.0	ug/L
Acetone	TILE 1	9/14/2017		18.1	10.0	ug/L
Benzene	TILE 1	11/09/2016		1.6	1.0	ug/L
Benzene	TILE 1	3/09/2017		2.2	1.0	ug/L
Benzene	TILE 1	9/14/2017		2.7	1.0	ug/L
Benzene	TILE 1	3/12/2018		3.7	1.0	ug/L
Benzene	TILE 1	9/02/2020		1.9	1.0	ug/L
Benzene	TILE 1	9/14/2021		1.1	1.0	ug/L
Benzene	TILE 1	9/13/2022		2.1	1.0	ug/L
Benzene	TILE 1	9/05/2023		3.0	1.0	ug/L
Chlorobenzene	TILE 1	9/20/2016		3.4	1.0	ug/L
Chlorobenzene	TILE 1	11/09/2016		3.6	1.0	ug/L
Chlorobenzene	TILE 1	3/09/2017		7.9	1.0	ug/L
Chlorobenzene	TILE 1	9/14/2017		5.8	1.0	ug/L
Chlorobenzene	TILE 1	3/12/2018		7.2	1.0	ug/L
Chlorobenzene	TILE 1	9/10/2018		4.3	1.0	ug/L
Chlorobenzene	TILE 1	3/26/2019		3.0	1.0	ug/L
Chlorobenzene	TILE 1	6/05/2019		4.9	1.0	ug/L
Chlorobenzene	TILE 1	9/16/2019		4.1	1.0	ug/L
Chlorobenzene	TILE 1	3/24/2020		3.9	1.0	ug/L
Chlorobenzene	TILE 1	9/02/2020		4.4	1.0	ug/L
Chlorobenzene	TILE 1	3/08/2021		2.7	1.0	ug/L
Chlorobenzene	TILE 1	9/14/2021		2.7	1.0	ug/L
Chlorobenzene	TILE 1	3/28/2022		2.9	1.0	ug/L
Chlorobenzene	TILE 1	9/13/2022		3.0	1.0	ug/L
Chlorobenzene	TILE 1	3/23/2023		2.9	1.0	ug/L
Chlorobenzene	TILE 1	9/05/2023		5.6	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	TILE 1	3/06/2024		1.8	1.0	ug/L
Chloroform	TILE 1	9/16/2019		1.4	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/20/2016		7.0	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	11/09/2016		2.8	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/09/2017		3.9	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/12/2018		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/26/2019		3.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	6/05/2019		5.7	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/16/2019		3.9	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/24/2020		3.2	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/02/2020		1.7	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/14/2021		1.0	1.0	ug/L
Trans-1,2-dichloroethylene	TILE 1	3/12/2018		1.1	1.0	ug/L
Vinyl chloride	TILE 1	9/20/2016		3.0	1.0	ug/L
Vinyl chloride	TILE 1	11/09/2016		3.6	1.0	ug/L
Vinyl chloride	TILE 1	3/09/2017		4.0	1.0	ug/L
Vinyl chloride	TILE 1	9/02/2020		1.2	1.0	ug/L
1,4-dichlorobenzene	TILE 2	3/26/2019		1	1	ug/L
Chlorobenzene	TILE 2	3/26/2019		2.0	1.0	ug/L
Chlorobenzene	TILE 2	6/05/2019		1.2	1.0	ug/L
Chlorobenzene	TILE 2	9/16/2019		2.2	1.0	ug/L
Chlorobenzene	TILE 2	3/24/2020		1.0	1.0	ug/L
Chlorobenzene	TILE 2	9/02/2020		1.1	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/10/2018		6.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/26/2019		19.9	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	6/05/2019		18.2	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/16/2019		5.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/24/2020		10.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/02/2020		1.3	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/08/2021		8.1	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/14/2021		3.8	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/28/2022		2.7	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/13/2022		4.1	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/23/2023		6.2	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/05/2023		2.3	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/06/2024		6.9	1.0	ug/L
Vinyl chloride	TILE 2	3/26/2019		6.2	1.0	ug/L
Vinyl chloride	TILE 2	9/16/2019		8.3	1.0	ug/L
Vinyl chloride	TILE 2	3/24/2020		3.5	1.0	ug/L
Vinyl chloride	TILE 2	9/02/2020		4.7	1.0	ug/L
Vinyl chloride	TILE 2	3/08/2021		2.4	1.0	ug/L
Vinyl chloride	TILE 2	9/14/2021		3.3	1.0	ug/L
Vinyl chloride	TILE 2	3/28/2022		1.3	1.0	ug/L
Vinyl chloride	TILE 2	9/13/2022		1.6	1.0	ug/L
Vinyl chloride	TILE 2	3/23/2023		1.9	1.0	ug/L
Vinyl chloride	TILE 2	9/05/2023		1.6	1.0	ug/L
Vinyl chloride	TILE 2	3/06/2024		1.0	1.0	ug/L

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

**Attachment H**

Assessment Statistics for Verified 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	LW26	3								*
1,2-dichloropropane	ug/L	LW26	3								*
1,4-dichlorobenzene	ug/L	LW26	3								*
Benzene	ug/L	LW26	3								*
Bis(2-ethylhexyl) phthalate	ug/L	LW26	0								*
Chlorobenzene	ug/L	LW26	3								*
Cis-1,2-dichloroethylene	ug/L	LW26	3								*
Toluene	ug/L	LW26	3								*
Trans-1,2-dichloroethylene	ug/L	LW26	3								*
Trichloroethylene	ug/L	LW26	3								*
Vinyl chloride	ug/L	LW26	3								*
1,1-dichloroethane	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	140.000		
1,2-dichloropropane	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	5.000		
1,4-dichlorobenzene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	75.000		
Benzene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	5.000		
Bis(2-ethylhexyl) phthalate	ug/L	MW-14D	3								*
Chlorobenzene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	100.000		
Cis-1,2-dichloroethylene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	70.000		
Toluene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	1000.000		
Trans-1,2-dichloroethylene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	100.000		
Trichloroethylene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	5.000		
Vinyl chloride	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	2.000		
1,1-dichloroethane	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	140.000		
1,2-dichloropropane	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	5.000		
1,4-dichlorobenzene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	75.000		
Benzene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	5.000		
Bis(2-ethylhexyl) phthalate	ug/L	MW-17R	4	6.250	4.500	1.176	0.957	11.543	6.000		
Chlorobenzene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	100.000		
Cis-1,2-dichloroethylene	ug/L	MW-17R	4	2.600	1.192	1.176	1.198	4.002	70.000		
Toluene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	1000.000		
Trans-1,2-dichloroethylene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	100.000		
Trichloroethylene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	5.000		
Vinyl chloride	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	2.000		
1,1-dichloroethane	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	140.000		
1,2-dichloropropane	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	5.000		
1,4-dichlorobenzene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	75.000		
Benzene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	5.000		
Bis(2-ethylhexyl) phthalate	ug/L	MW-28	2								*
Chlorobenzene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	100.000		
Cis-1,2-dichloroethylene	ug/L	MW-28	4	11.375	2.216	1.176	8.769	13.981	70.000		
Toluene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	1000.000		
Trans-1,2-dichloroethylene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	100.000		
Trichloroethylene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	5.000		
Vinyl chloride	ug/L	MW-28	4	0.675	0.350	1.176	0.263	1.087	2.000		
1,1-dichloroethane	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	140.000		
1,2-dichloropropane	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	5.000		
1,4-dichlorobenzene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	75.000		
Benzene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	5.000		
Bis(2-ethylhexyl) phthalate	ug/L	MW-32	0								*
Chlorobenzene	ug/L	MW-32	4	1.600	0.920	1.176	0.518	2.682	100.000		
Cis-1,2-dichloroethylene	ug/L	MW-32	4	0.625	0.250	1.176	0.331	0.919	70.000		
Toluene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	1000.000		
Trans-1,2-dichloroethylene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	100.000		
Trichloroethylene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	5.000		
Vinyl chloride	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	2.000		
1,1-dichloroethane	ug/L	MW-44	3								*
1,2-dichloropropane	ug/L	MW-44	3								*
1,4-dichlorobenzene	ug/L	MW-44	3								*
Benzene	ug/L	MW-44	3								*
Bis(2-ethylhexyl) phthalate	ug/L	MW-44	1								*
Chlorobenzene	ug/L	MW-44	3								*
Cis-1,2-dichloroethylene	ug/L	MW-44	3								*
Toluene	ug/L	MW-44	4	0.925	0.850	1.176	0.000	1.925	1000.000		*
Trans-1,2-dichloroethylene	ug/L	MW-44	3								*
Trichloroethylene	ug/L	MW-44	3								*
Vinyl chloride	ug/L	MW-44	3								*
1,1-dichloroethane	ug/L	MW-9AR	4	1.125	0.435	1.176	0.613	1.637	140.000	dec	
1,2-dichloropropane	ug/L	MW-9AR	4	0.850	0.412	1.176	0.365	1.335	5.000		
1,4-dichlorobenzene	ug/L	MW-9AR	4	0.625	0.250	1.176	0.331	0.919	75.000		
Benzene	ug/L	MW-9AR	4	1.750	0.850	1.176	0.750	2.750	5.000		
Bis(2-ethylhexyl) phthalate	ug/L	MW-9AR	0								*
Chlorobenzene	ug/L	MW-9AR	4	3.775	2.551	1.176	0.774	6.776	100.000		

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

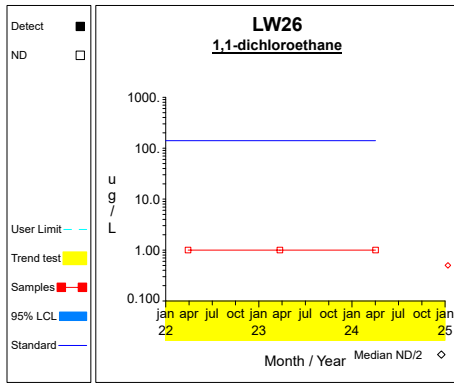
Table 1

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

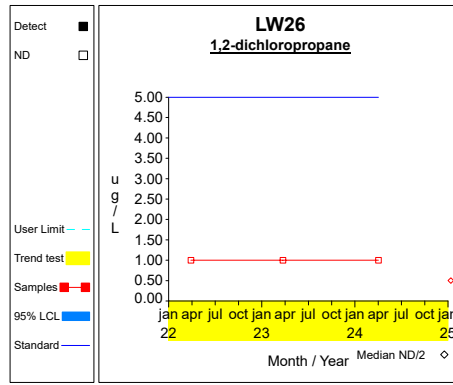
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Cis-1,2-dichloroethylene	ug/L	MW-9AR	4	72.125	12.372	1.176	57.572	86.678	70.000	
Toluene	ug/L	MW-9AR	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	MW-9AR	4	5.325	1.031	1.176	4.113	6.537	100.000	
Trichloroethylene	ug/L	MW-9AR	4	3.300	2.753	1.176	0.061	6.539	5.000	
Vinyl chloride	ug/L	MW-9AR	4	29.600	19.589	1.176	6.558	52.642	2.000	**
1,1-dichloroethane	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	TILE 1	4	2.550	1.333	1.176	0.982	4.118	75.000	
Benzene	ug/L	TILE 1	4	1.525	1.239	1.176	0.067	2.983	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	TILE 1	2							*
Chlorobenzene	ug/L	TILE 1	4	3.325	1.611	1.176	1.430	5.220	100.000	
Cis-1,2-dichloroethylene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	70.000	
Toluene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,1-dichloroethane	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	TILE 2	2							*
Chlorobenzene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	100.000	
Cis-1,2-dichloroethylene	ug/L	TILE 2	4	4.875	2.089	1.176	2.418	7.332	70.000	
Toluene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	TILE 2	4	1.525	0.377	1.176	1.081	1.969	2.000	

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

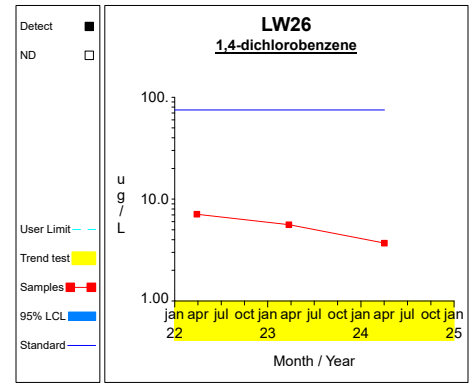
# Confidence Limits (Assessment)



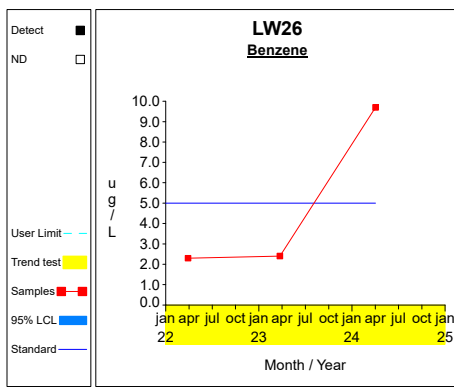
Graph 1



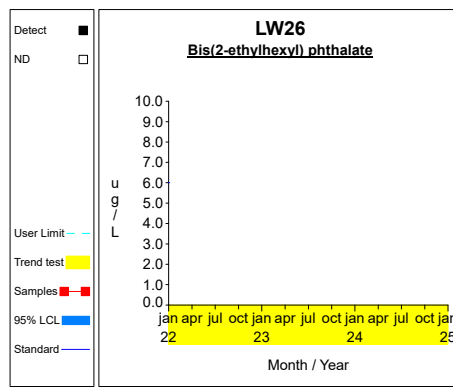
Graph 2



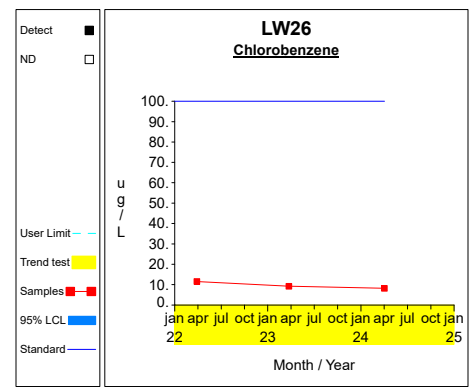
Graph 3



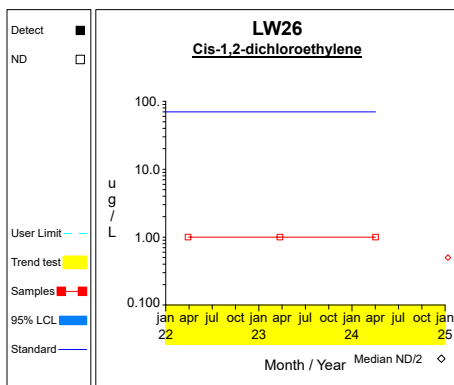
Graph 4



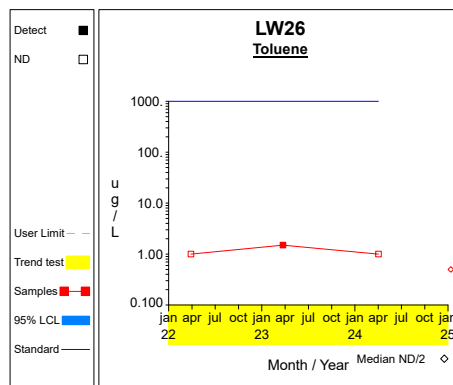
Graph 5



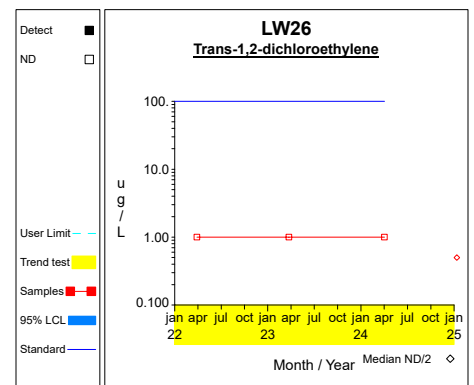
Graph 6



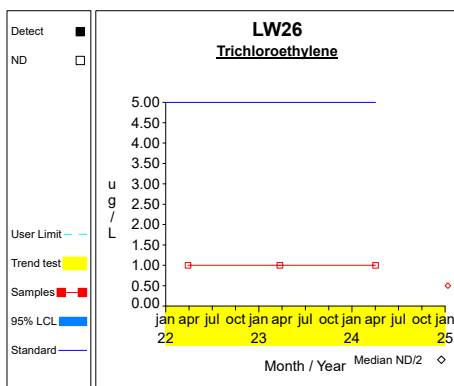
Graph 7



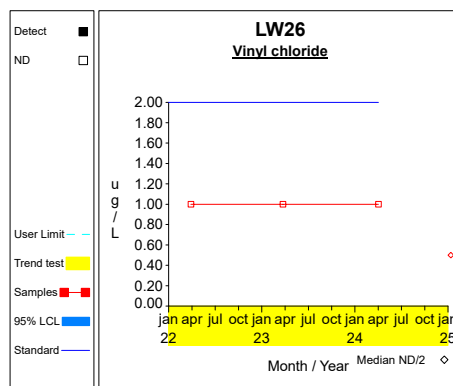
Graph 8



Graph 9

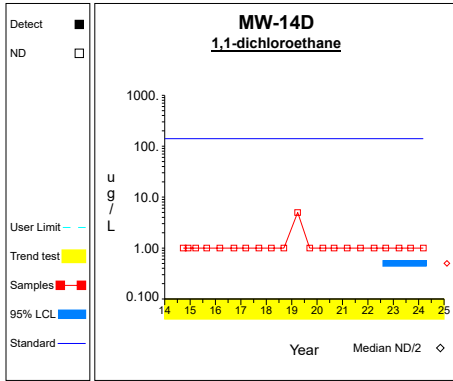


Graph 10

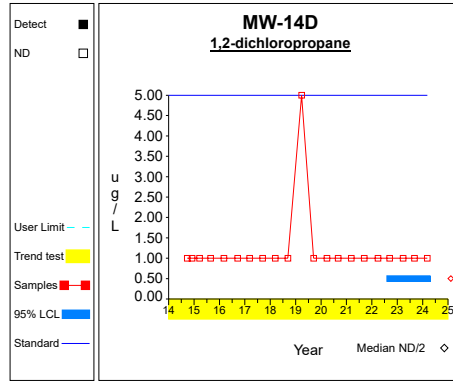


Graph 11

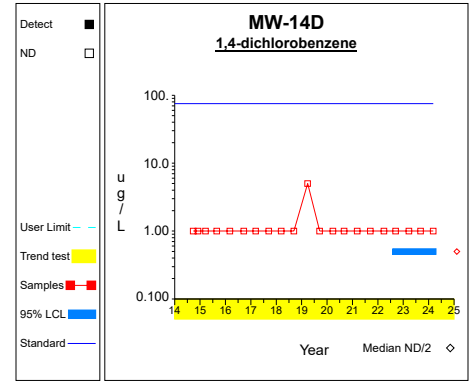
# Confidence Limits (Assessment)



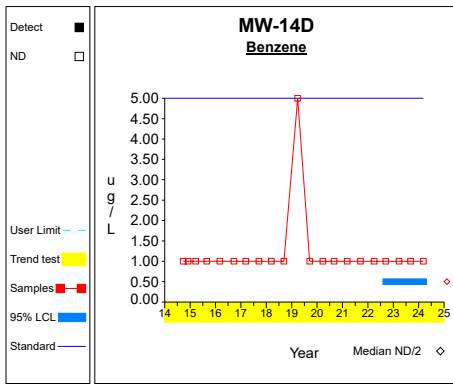
**Graph 12**



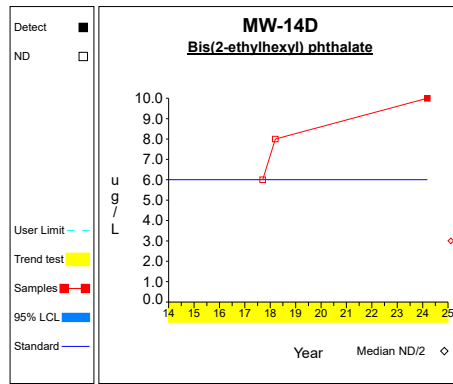
**Graph 13**



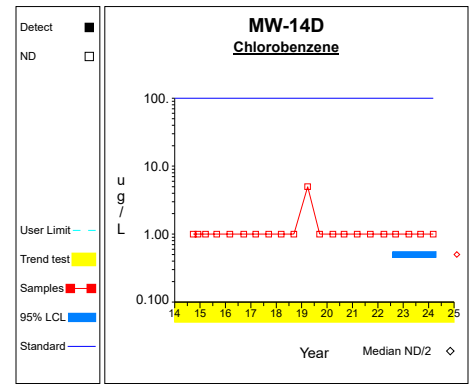
**Graph 14**



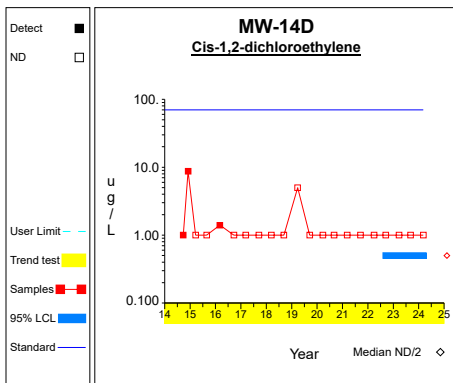
**Graph 15**



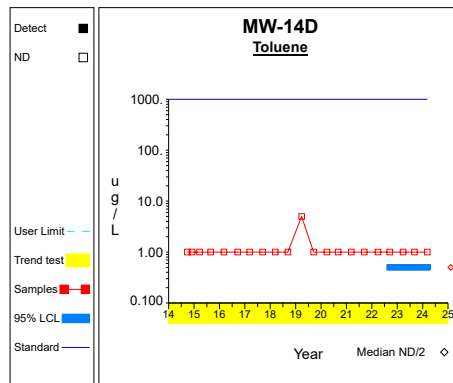
**Graph 16**



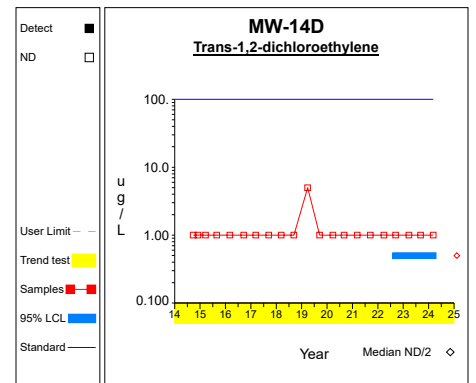
**Graph 17**



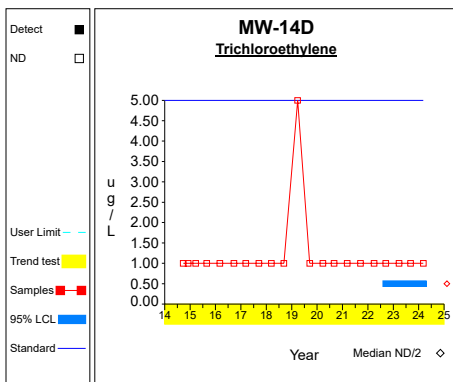
**Graph 18**



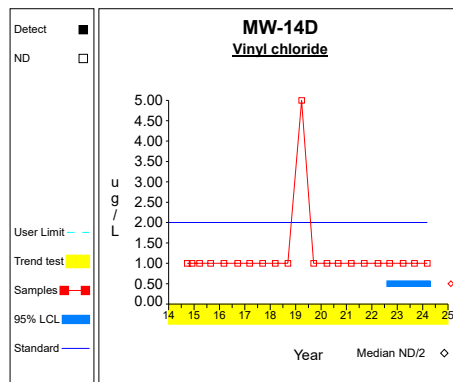
**Graph 19**



**Graph 20**



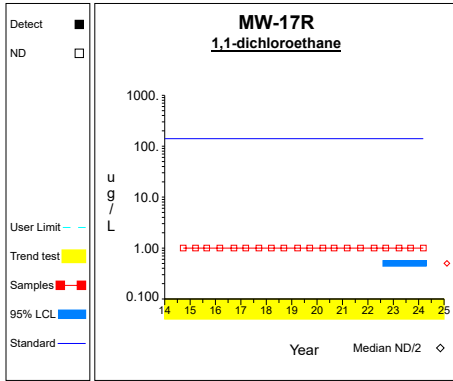
**Graph 21**



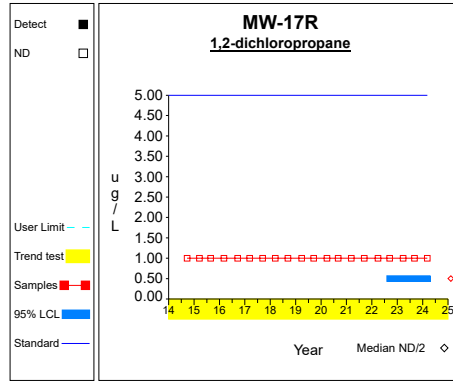
**Graph 22**



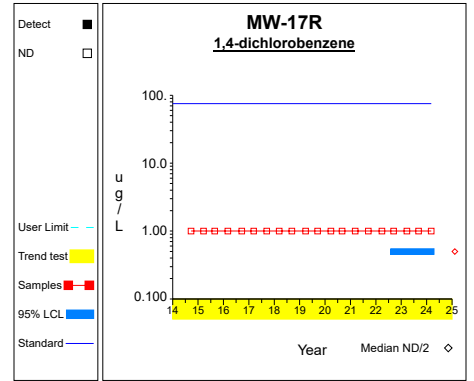
# Confidence Limits (Assessment)



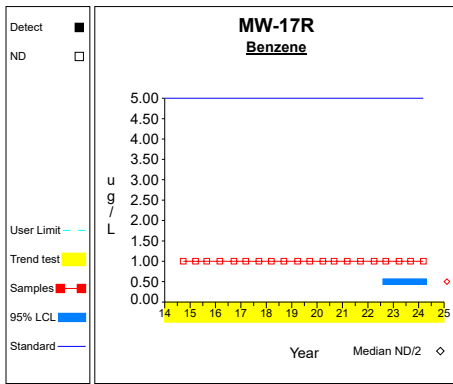
Graph 23



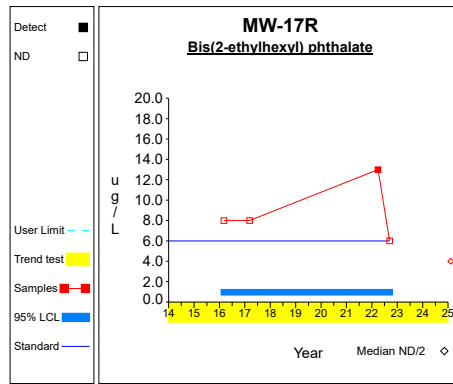
Graph 24



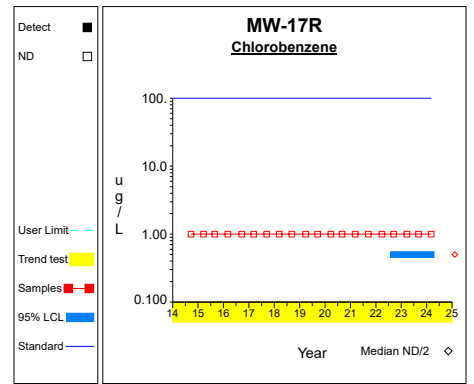
Graph 25



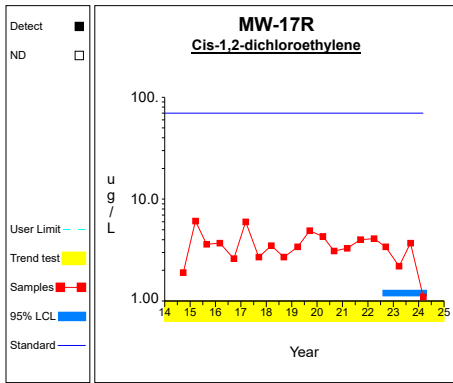
Graph 26



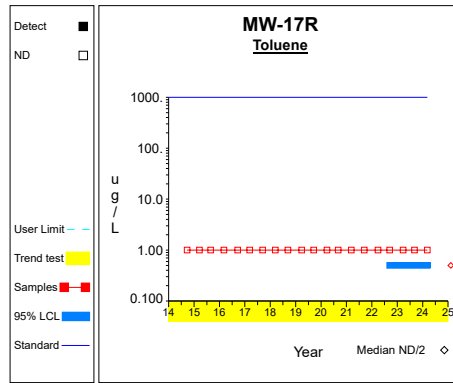
Graph 27



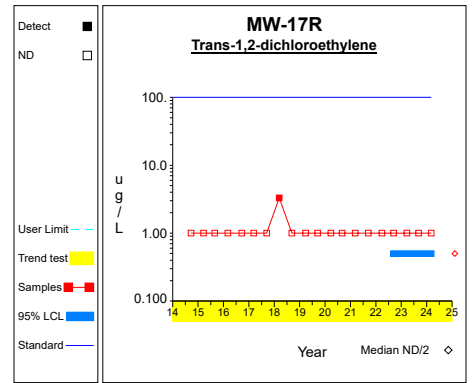
Graph 28



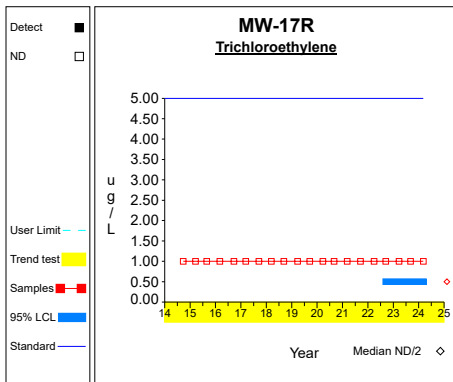
Graph 29



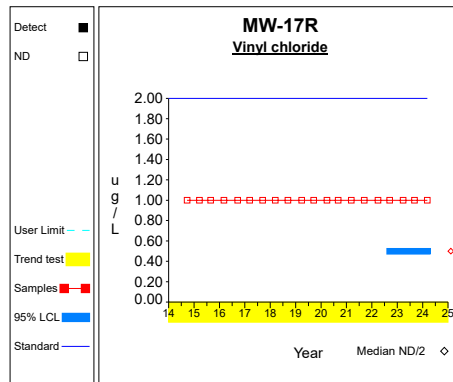
Graph 30



Graph 31

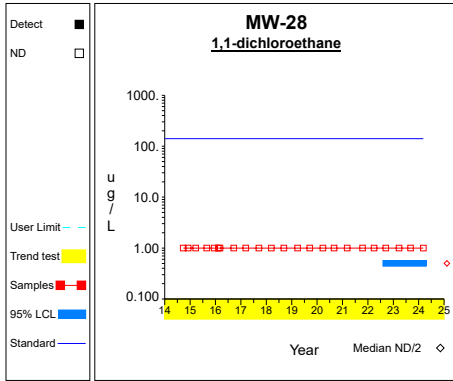


Graph 32

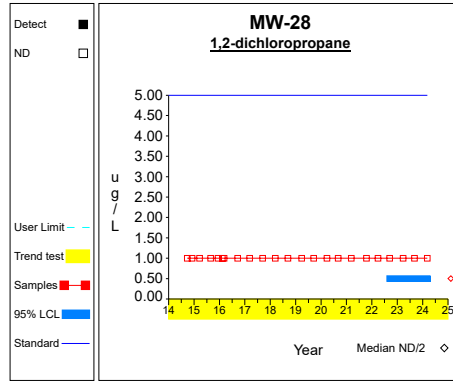


Graph 33

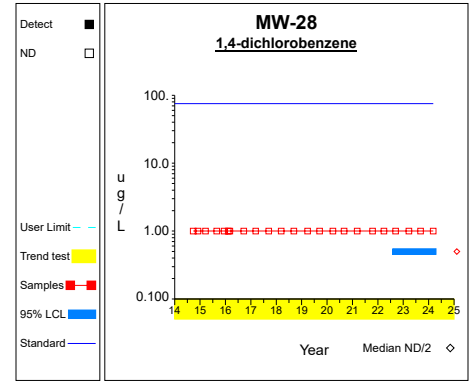
# Confidence Limits (Assessment)



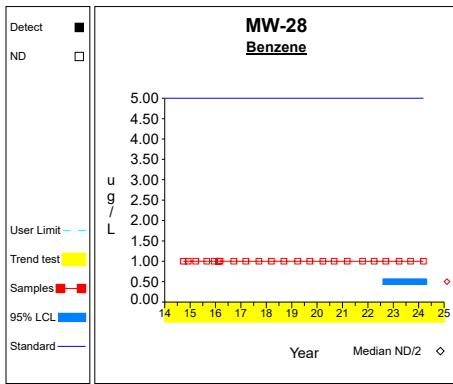
Graph 34



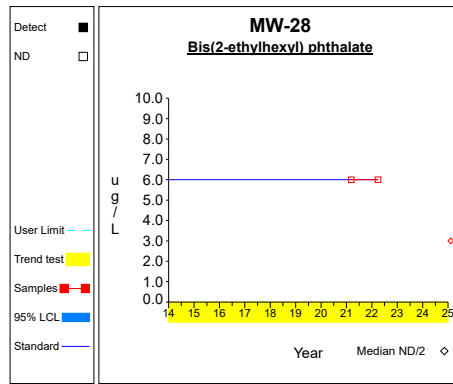
Graph 35



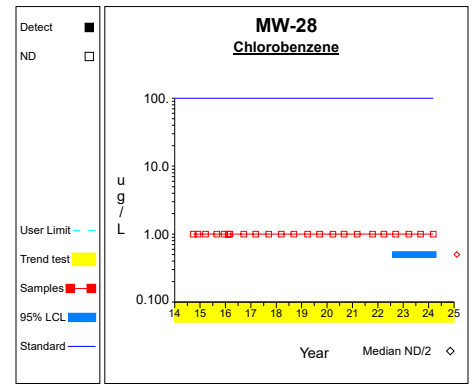
Graph 36



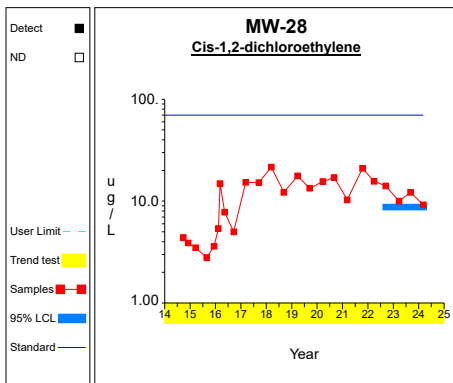
Graph 37



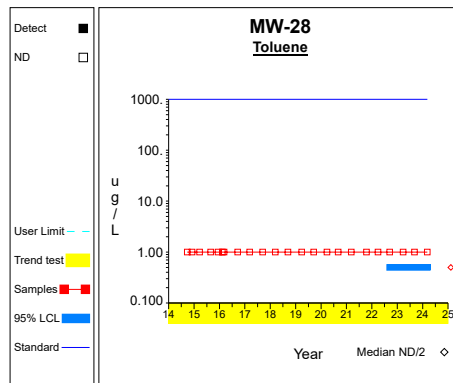
Graph 38



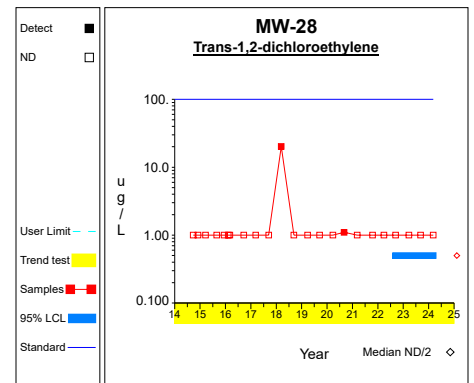
Graph 39



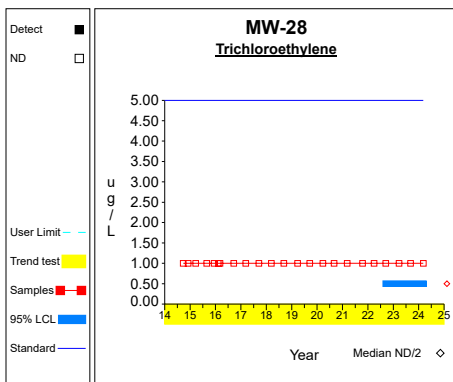
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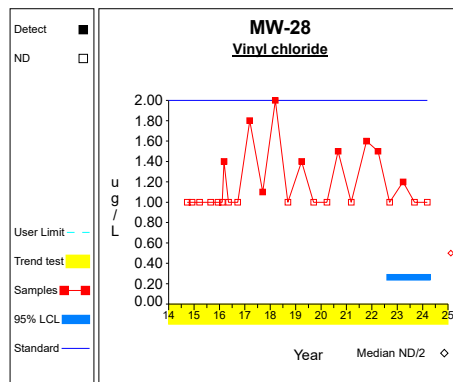
Graph 41



Graph 42

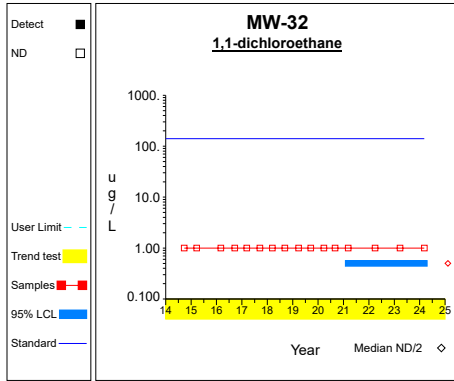


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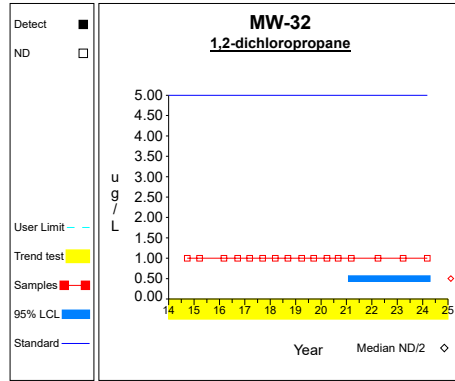


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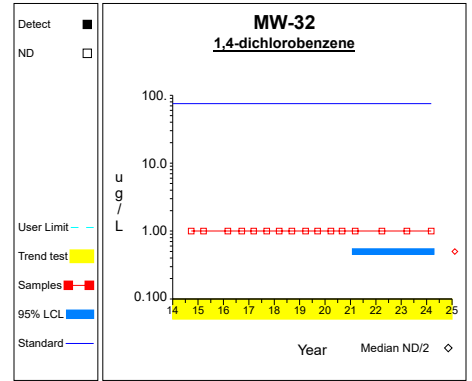
# Confidence Limits (Assessment)



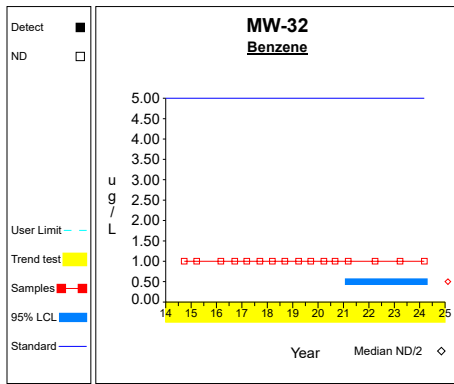
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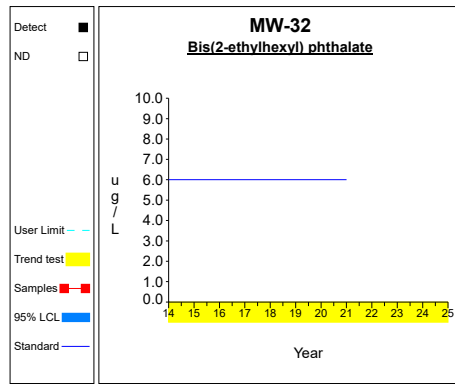
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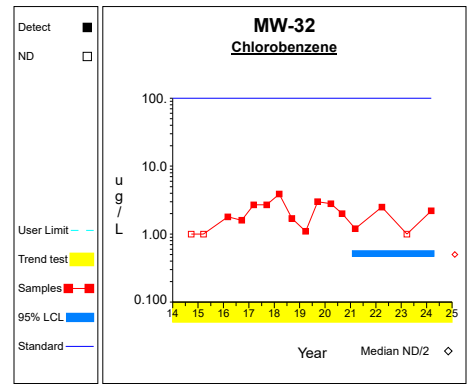
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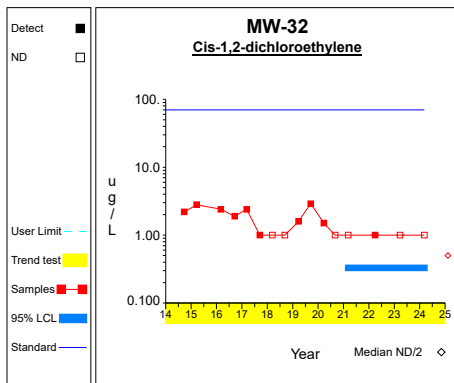
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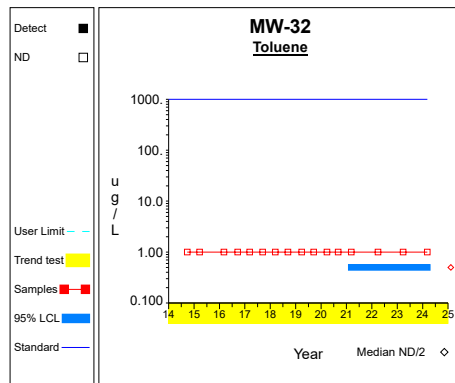
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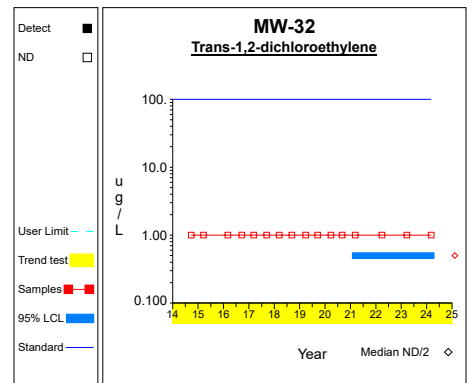
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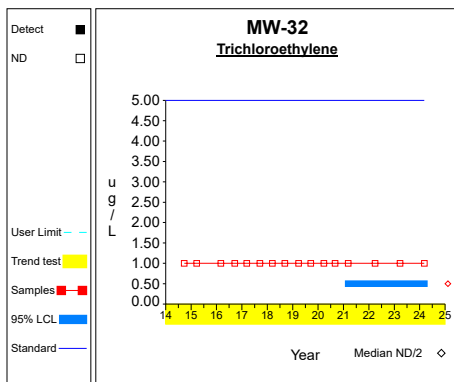
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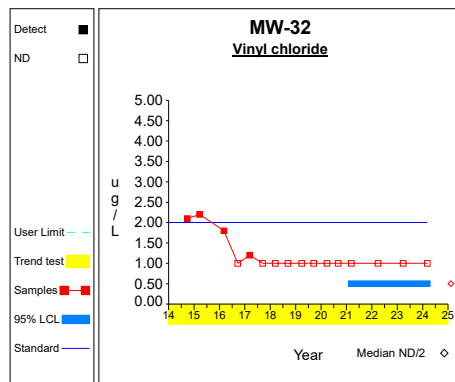
Graph 52



Graph 53

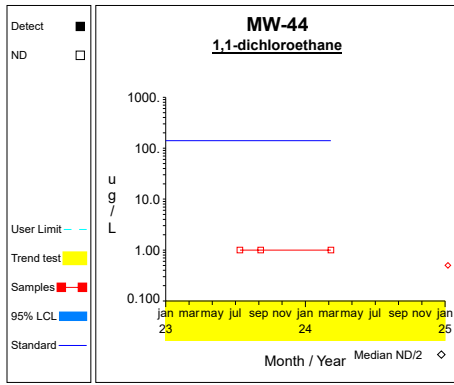


Graph 54

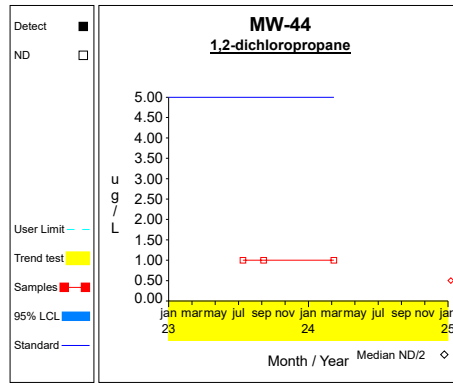


Graph 55

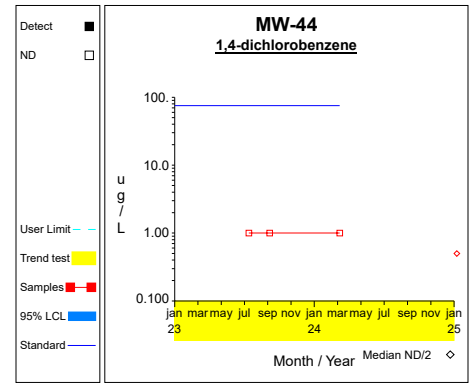
## Confidence Limits (Assessment)



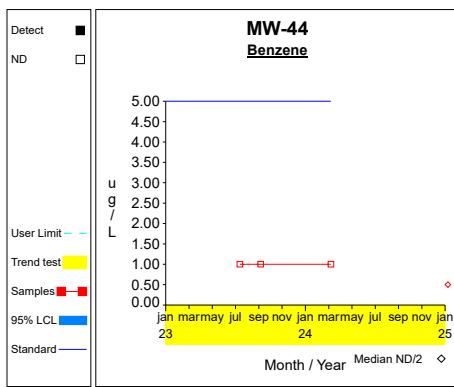
**Graph 56**



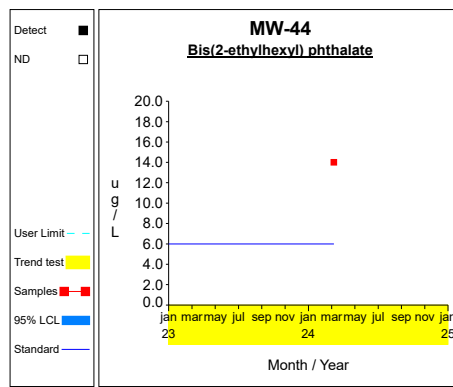
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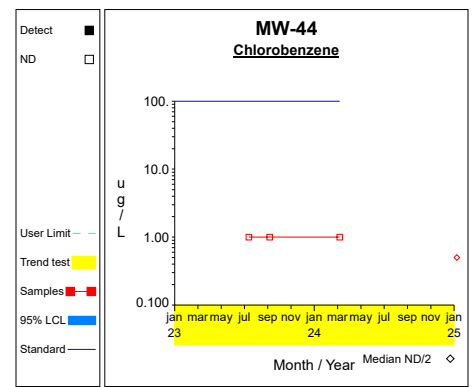
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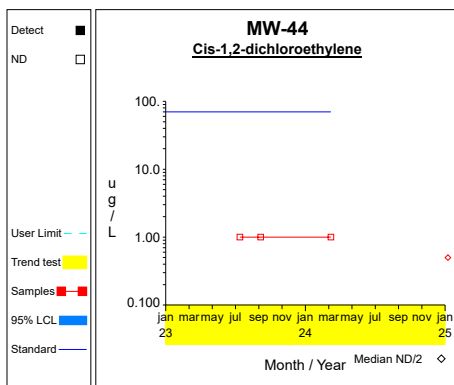
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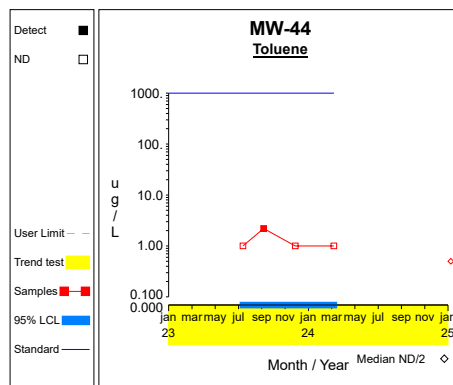
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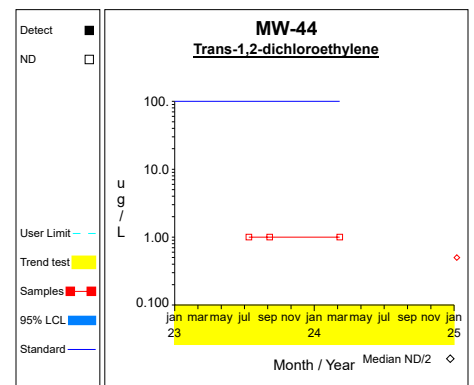
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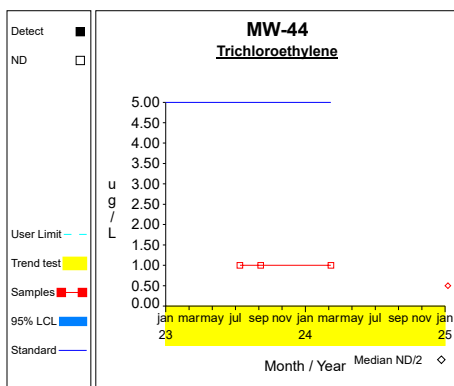
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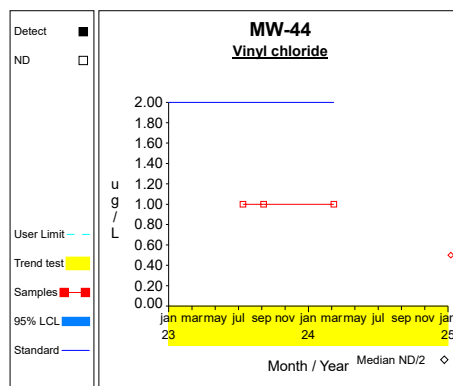
**Graph 63**



**Graph 64**

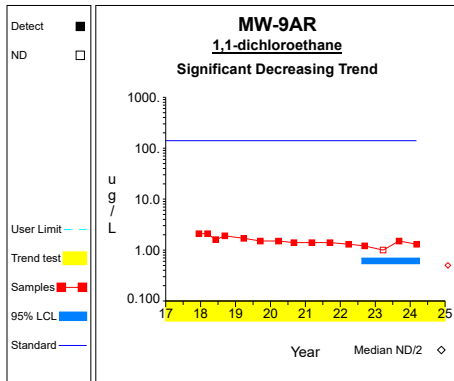


**Graph 65**

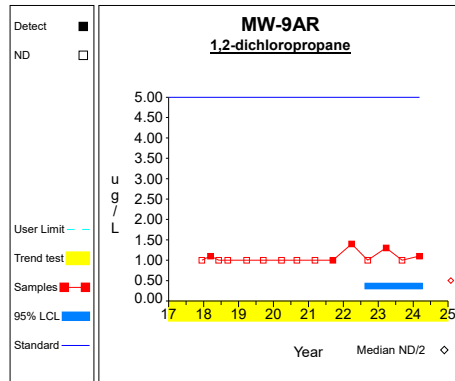


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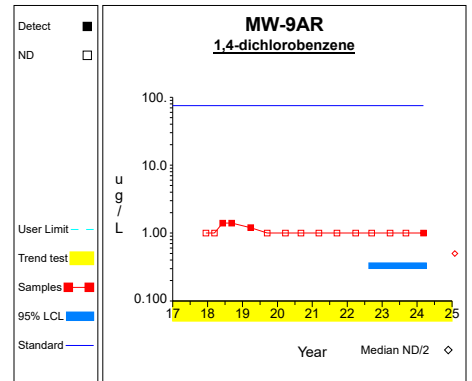
# Confidence Limits (Assessment)



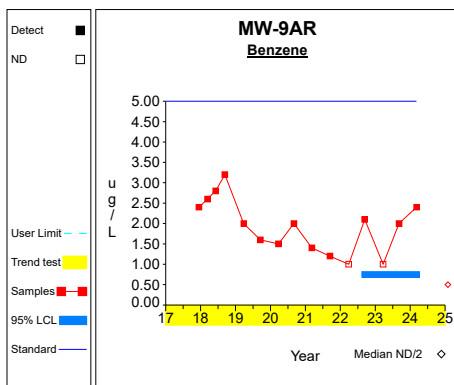
Graph 67



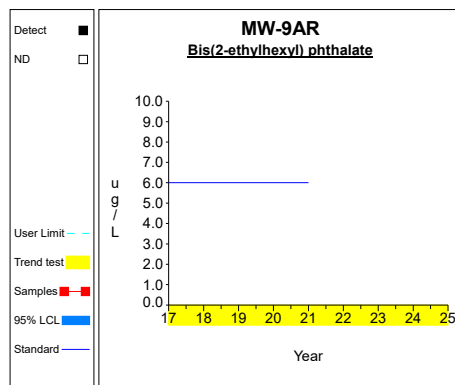
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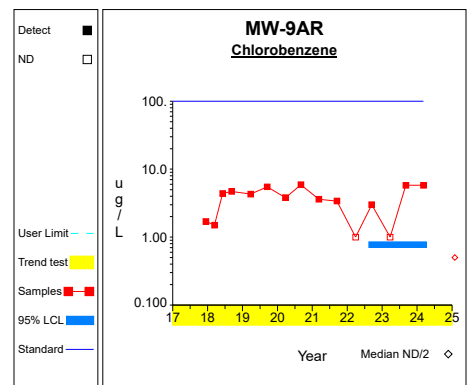
Graph 69



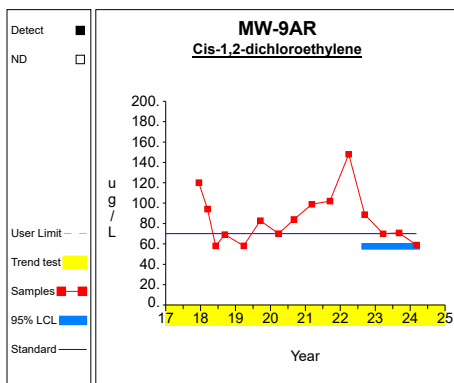
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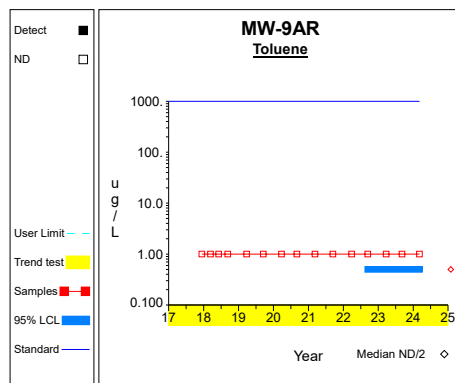
Graph 71



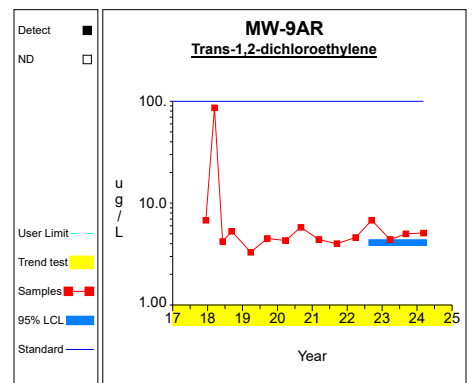
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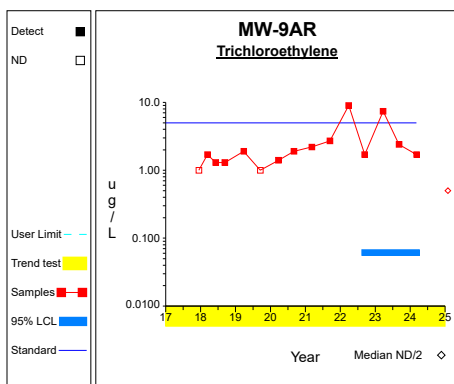
Graph 73



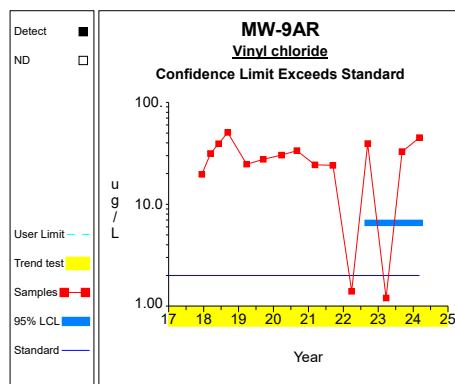
Graph 74



Graph 75

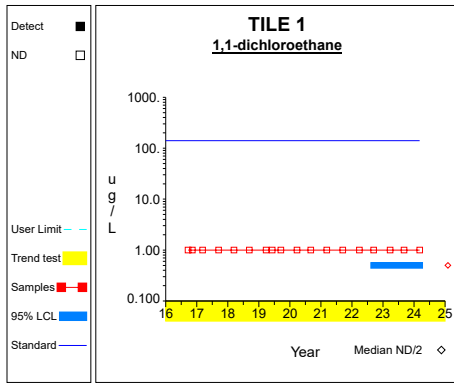


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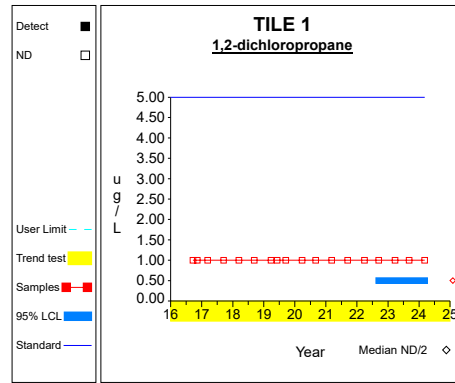


Graph 77

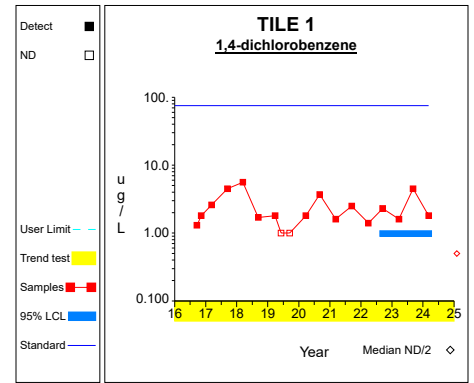
# Confidence Limits (Assessment)



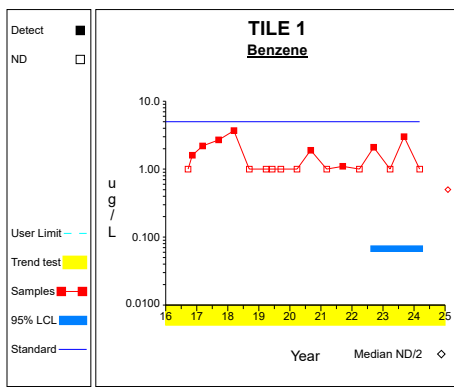
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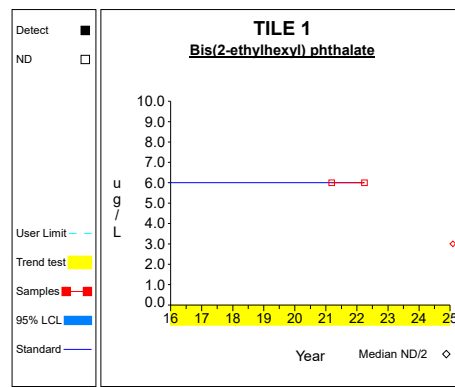
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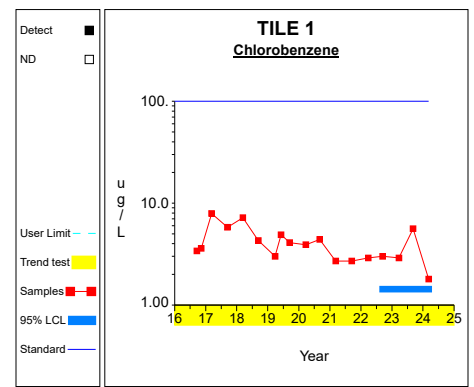
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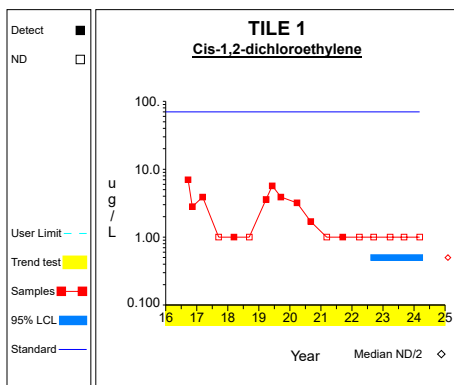
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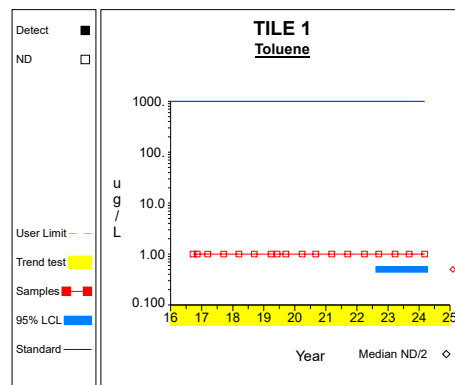
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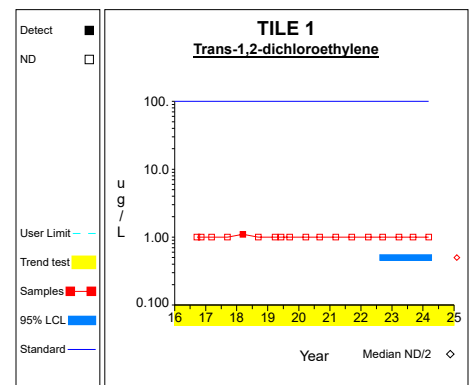
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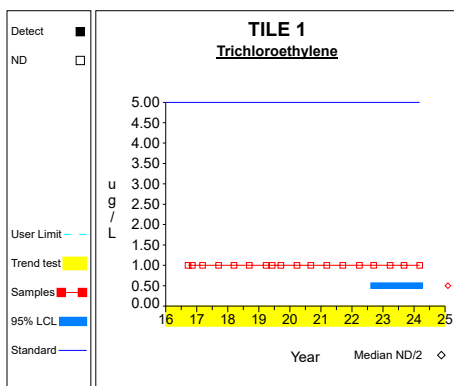
Graph 84



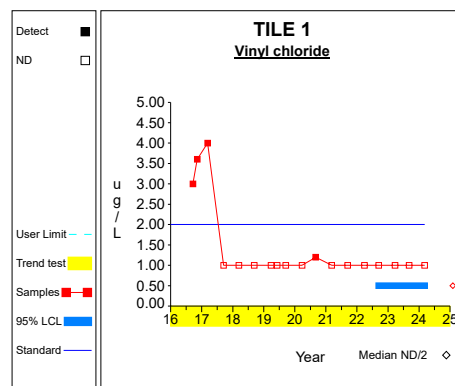
Graph 85



Graph 86

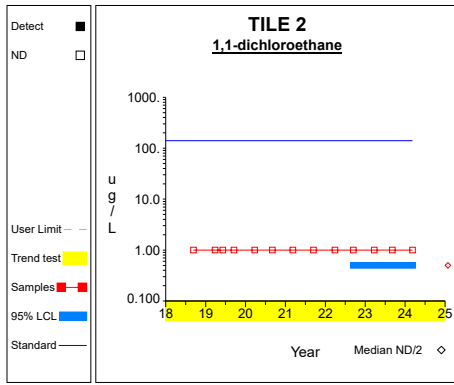


Graph 87

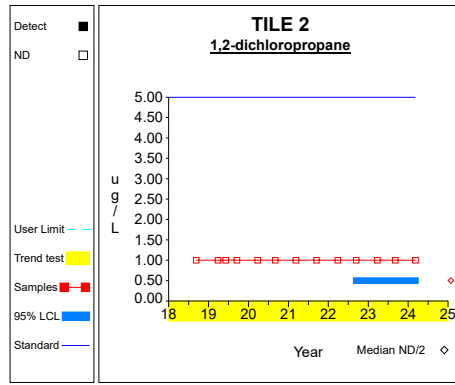


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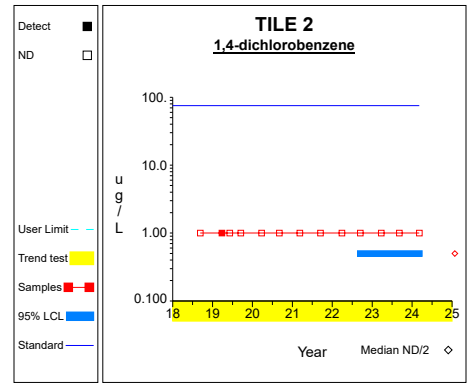
# Confidence Limits (Assessment)



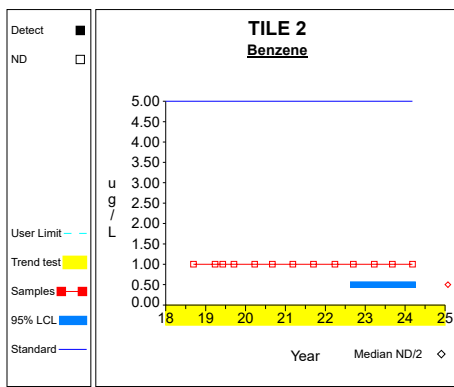
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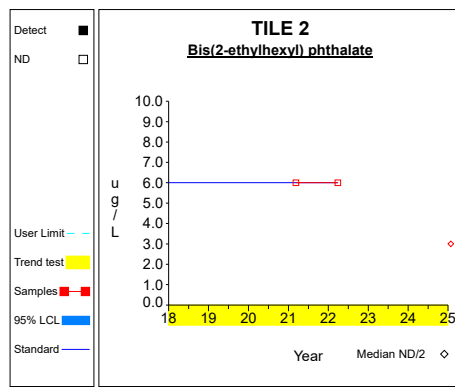
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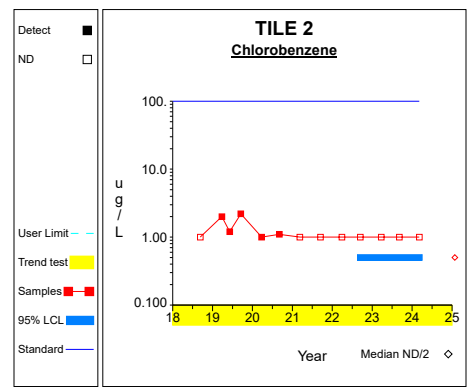
Graph 91



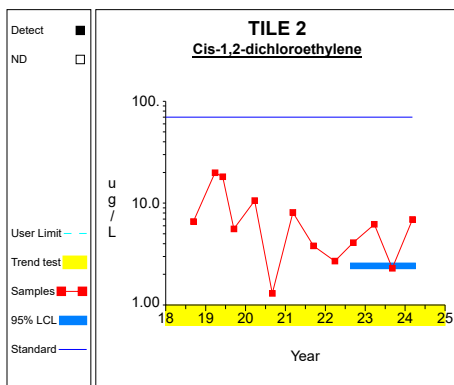
Graph 92



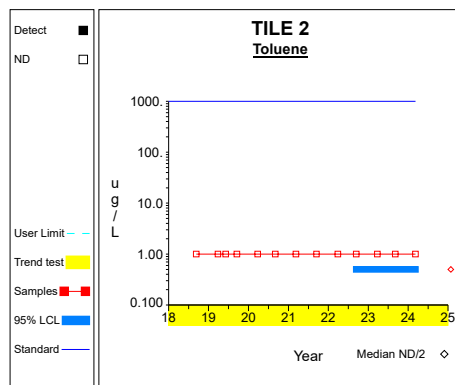
Graph 93



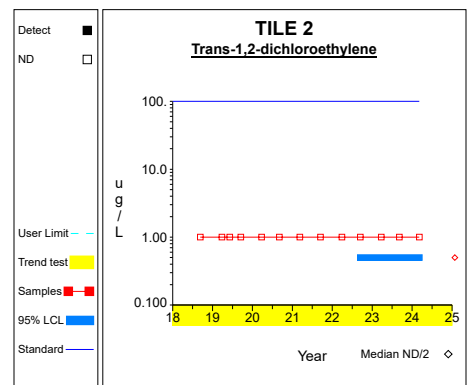
Graph 94



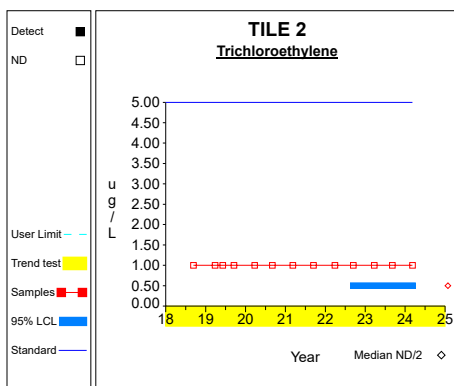
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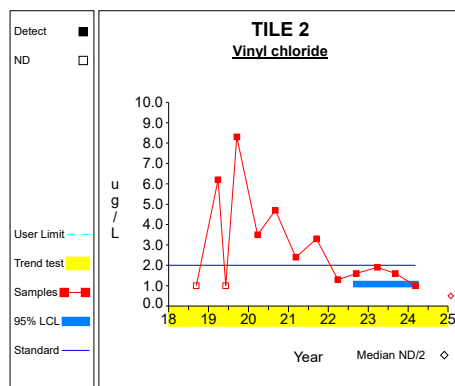
Graph 96



Graph 97



Graph 98



Graph 99

## Appendix C.2 – Fall - Otter Creek Statistical Report



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**GROUND WATER STATISTICS**  
**FOR THE**  
**SOUTH CENTRAL IOWA LANDFILL**

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

Prepared for:  
**South Central Iowa Landfill Agency**  
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Winterset, Madison County, IA

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**October 2024**

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## INTRODUCTION

This report summarizes the results of the statistical analysis used to evaluate the ground water quality data obtained during the second semi-annual monitoring event in 2024 at the South Central Iowa Landfill in Winterset, Iowa. The statistical plan was designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. The interwell statistical method was applied to the current data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document (“*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance*”, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

### Ground Water Monitoring Program

The shallow groundwater monitoring network for the South Central Iowa Landfill includes sample points MW-4A, MW-18, GU-1, GU-2, GU-A, GU-B, MW-1R, MW-6A, MW-21, Tile 1, Tile 2, MW-38A, MW-44, and MW-45A. The deep groundwater monitoring network for the South Central Iowa Landfill includes sample points MW-11C, MW-39D, MW-41D, MW-42D, MW-45D, MW-14D, MW-17R, and MW-28. Supplemental wells monitored include MW-8B, MW-9AR, and MW-15R. Additionally, surface water is monitored from a stream on the western edge of the property at sample points SW-1, SW-101, SW-102, SW-103, SW-104, SW-105, SW-106, and SW-2B. Each of the groundwater monitoring wells and surface waters are to be sampled at least semiannually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds, summarized in Table 1 below.

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

*Organic Compounds:*

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

*Inorganic constituents:*

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

The ground water and surface 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 prediction limit method was applied to the South Central Iowa Landfill data using the DUMPStat<sup>®</sup> statistical program. Ground water statistics are to be done on the inorganic constituents listed. The organic constituents are compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to historical concentrations.

### **Interwell Statistics: Upgradient versus Downgradient Comparisons**

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

Since there is limited background, Poisson prediction limits were previously computed for those rarely detected parameters. Poisson prediction limits are appropriate for small data sets. Once twelve rounds of data are available, it was recommended that nonparametric prediction limits be used for parameters detected at a frequency less than 25%. Since the Unified Guidance recommends nonparametric limits over Poisson limits, nonparametric limits were used for the current comparisons.

### **Results of the Interwell Statistics (Shallow Ground Water Samples)**

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-4A and MW-18 during the period from September 2014 through the current data. A summary of the background data from monitoring wells MW-4A and MW-18, 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-2, GU-A, GU-B, MW-21, MW-44, MW-45A, MW-6A, Tile 1, and Tile 2, 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-2	Zinc	320	73.5000	Nonparametric	Verified
GU-A	Nickel	77.5	33.6000	Nonparametric	Awaiting verification
	Zinc	739	73.5000	Nonparametric	Verified
GU-B	Cobalt	10.2	4.2267	Lognormal	Awaiting verification
MW-44	Barium	662	624.2924	Normal	Verified
MW-45A	Cobalt	7.0	4.2267	Lognormal	Awaiting verification
MW-6A	Cobalt	4.9	4.2267	Lognormal	Awaiting verification
Tile 1	Barium	2340	624.2924	Normal	Verified
	Nickel	43.5	33.6000	Nonparametric	Verified
Tile 2	Barium	638	624.2924	Normal	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 3% and the test becomes sensitive to 4 standard deviation unit increases over background.

The verified trace metal 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, 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 cobalt at Tile 1 (2.302 µg/L) exceeds the GWPS of 2.1 µg/L. The remainder of the calculated 95% LCLs are below GWPS.

**Results of the Interwell Statistics (Bedrock Ground Water Samples)**

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-11C, MW-39D, MW-41D, and MW-42D during the period from September 2014 through the current data. A summary of the background data from monitoring wells MW-11C, MW-39D, MW-41D, and MW-42D, used to determine the site prediction limits, is listed in Attachment D, 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-14D, MW-17R, MW-28, and MW-45D 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
MW-17R	Barium	435	106.3060	Normal	Verified
	Nickel	24.2	11.8000	Nonparametric	Verified
MW-28	Barium	652	106.3060	Normal	Verified
	Cobalt	23.4	5.4000	Nonparametric	Verified
	Nickel	15.2	11.8000	Nonparametric	Verified
MW-45D	Arsenic	9.7	5.8000	Nonparametric	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. For interwell analysis, the site-wide false positive rate is 1% and the test becomes sensitive to 4 standard deviation unit increases over background.

The verified trace metal exceedances were evaluated against the GWPS (Attachment E). The 95% LCL for cobalt MW-28 (16.414 µg/L) exceeds the GWPS of 2.1 µg/L. The remainder of the calculated 95% LCLs are below GWPS.

**Supplemental Downgradient Attenuation Zone**

Time series plots of the Appendix I trace metals at wells MW-8B, MW-9AR, and MW-15R are provided in Attachment F. No increasing trends were detected in the data.

**Volatile Organic Compounds**

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

be indicated if the VOC detection is confirmed by the subsequent monitoring. VOCs detected in the ground water at South Central Iowa Landfill during the second semi-annual monitoring event in 2024 are summarized below. Historical VOC detections are summarized in Attachment G.

**VOCs Detected at SCILA during the Second Semi-Annual Monitoring Event in 2024**

Well	VOC Detected	Result µg/L	Reporting Limit µg/L	Verified/Awaiting Verification	Ground Water Standard, µg/L
MW-17R	<i>cis</i> -1,2-Dichloroethene	1.6	1	Verified	70 <sup>a</sup>
MW-28	<i>cis</i> -1,2-Dichloroethene	10.8	1	Verified	70 <sup>a</sup>
	Vinyl chloride	1.3	1	Awaiting Verification	2 <sup>a</sup>
MW-44	Bis(2-ethylhexyl)phthalate	10.0	6	Verified	6 <sup>a</sup>
MW-45D	Acetone	38.2	10	Awaiting Verification	6300 <sup>b</sup>
MW-9AR	Benzene	1.5	1	Verified	5 <sup>a</sup>
	Chlorobenzene	4.3	1	Verified	100 <sup>a</sup>
	<i>cis</i> -1,2-Dichloroethene	43.6	1	Verified	70 <sup>a</sup>
	<i>trans</i> -1,2-Dichloroethene	4.0	1	Verified	100 <sup>a</sup>
	Trichloroethene	2.1	1	Verified	5 <sup>a</sup>
	Vinyl chloride	28.2	1	Verified	2 <sup>a</sup>
Tile 1	1,4-Dichlorobenzene	3.3	1	Verified	75 <sup>a</sup>
	Benzene	1.8	1	Awaiting Verification	5 <sup>a</sup>
	Chlorobenzene	4.3	1	Verified	100 <sup>a</sup>
Tile 2	Chlorobenzene	1.1	1	Awaiting Verification	100 <sup>a</sup>
	<i>cis</i> -1,2-Dichloroethene	2.1	1	Verified	70 <sup>a</sup>
	Vinyl chloride	2.7	1	Verified	2 <sup>a</sup>

a – USEPA MCL,  
b – Iowa Statewide Standard

The past and current verified VOC detections 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, USEPA, March 2009 (Attachment H). 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 vinyl chloride MW-9AR (5.048 µg/L) exceeds the GWPS of 2 µg/L. The remainder of the calculated 95% LCLs are below GWPS.

Surface water sample points SW-102 and SW-2B were sampled on September 18-19, 2024 and analyzed for VOCs. No VOCs were detected above the site-specific reporting limits.

**Attachment A**

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

Table 1

Analytical Data Summary for 9/18/2024 to 9/19/2024

Constituents	Units	GU-2	GU-A	GU-B	MW-11C	MW-14D	MW-15R	MW-17R	MW-18	MW-21	MW-28	MW-31
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<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
1,2,3-trichloropropane	ug/L	<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
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0
2-butanone (mek)	ug/L	<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
4-methyl-2-pentanone (mibk)	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	40.5
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2.0	2.7	<2.0	<2.0	<2.0	<2.0	<2.0	2.4	<2.0	<2.0	<2.0
Arsenic, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	70.4	<4.0	4.8	<4.0	<4.0	<4.0
Barium, total	ug/L	230.0	44.8	277.0	88.4	22.6	686.0	435.0	477.0	146.0	652.0	<1.0
Benzene	ug/L	<1.0	<1.0	<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	<4	<4
Bicarbonate, as cacO3	mg/L						696					
Bis(2-ethylhexyl) phthalate	ug/L					<6						
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	1.2	<.8	<.8	<.8	<.8	2.5	<.8	<.8	<.8
Carbon disulfide	ug/L	<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
Chlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	ug/L	<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
Chloromethane	ug/L	<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
Cis-1,2-dichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	10.8	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4	3.5	10.2	<4	1.5	.9	4.1	2.3	<4	23.4	<4
Copper, total	ug/L	4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	4.7	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethane	mg/L						<.005					
Ethene	mg/L						<.005					
Ethylbenzene	ug/L	<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
Methane	mg/L						14.0000					
Methyl iodide	ug/L	<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
Nickel, total	ug/L	20.6	77.5	33.3	<4.0	<4.0	<4.0	24.2	33.6	<4.0	15.2	<4.0
pH	pH						6.7					
Selenium, total	ug/L	<4.0	<4.0	8.3	<4.0	<4.0	<4.0	<4.0	8.9	<4.0	<4.0	<4.0
Silver, total	ug/L	<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
Tetrachloroethylene	ug/L	<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
Toluene	ug/L	<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
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	ug/L	<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
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	320.0	739.0	65.2	<20.0	<20.0	<20.0	<20.0	73.5	<20.0	<20.0	<20.0

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



Table 1

Analytical Data Summary for 9/18/2024 to 9/19/2024

Constituents	MW-39D	MW-41D	MW-42D	MW-44	MW-45A	MW-45D	MW-6A	MW-8B	MW-9AR	SW-102	SW-2B
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				<5	<5	<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				<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-butanone (mek)				<10	<10	<10	<10	<10	<10	<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				<10.0	<10.0	38.2	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile				<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	<4.0	<4.0	<4.0	<4.0	<4.0	9.7	<4.0	17.5	<4.0	<4.0	<4.0
Barium, total	26.1	33.7	30.6	662.0	98.9	83.1	80.2	1080.0	444.0	<1.0	<1.0
Benzene				<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	728	778	<4	<4
Bicarbonate, as cacO3				10							
Bis(2-ethylhexyl) phthalate				<1	<1	<1	<1	<1	<1	<1	<1
Bromochloromethane				<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane				<1	<1	<1	<1	<1	<1	<1	<1
Bromoform				<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane				<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	2.7	<.8	<.8
Carbon disulfide				<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride				<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene				<1.0	<1.0	<1.0	<1.0	<1.0	4.3	<1.0	<1.0
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	<8	<8	<8
Cis-1,2-dichloroethylene				<1.0	<1.0	<1.0	<1.0	<1.0	43.6	<1.0	<1.0
Cis-1,3-dichloropropene				<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<4	1.0	<4	.5	7.0	.8	4.9	11.8	3.4	<4	<4
Copper, total	<4.0	<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
Dibromomethane				<1	<1	<1	<1	<1	<1	<1	<1
Ethane								<.005	<.005	<.005	<.005
Ethene								<.005	<.005	<.005	<.005
Ethylbenzene				<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methane								.0708	.6590	<.005	<.005
Methyl iodide				<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride				<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	5.2	<4.0	<4.0	4.5	<4.0	22.6	8.0	16.7	<4	<4
pH								6.6	6.7		
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
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	<2	<2	<2
Toluene				<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethylene				<1	<1	<1	<1	<1	4	<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				<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0
Trichlorofluoromethane				<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate				<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride				<1.0	<1.0	<1.0	<1.0	<1.0	28.2	<1.0	<1.0
Xylenes, total				<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	35.2	<20.0	<20.0

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

Table 1

Analytical Data Summary for 9/18/2024 to 9/19/2024

Constituents	TILE 1	TILE 2
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	3.3	<1.0
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	<2.0	<2.0
Arsenic, total	8.8	<4.0
Barium, total	2340.0	638.0
Benzene	1.8	<1.0
Beryllium, total	<4	<4
Bicarbonate, as caco3		
Bis(2-ethylhexyl) phthalate		
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	4.3	1.1
Chloroethane	<1	<1
Chloroform	<1	<1
Chloromethane	<1	<1
Chromium, total	<8	<8
Cis-1,2-dichloroethylene	<1.0	2.1
Cis-1,3-dichloropropene	<1	<1
Cobalt, total	3.2	1.8
Copper, total	<4.0	<4.0
Dibromochloromethane	<1	<1
Dibromomethane	<1	<1
Ethane		
Ethene		
Ethylbenzene	<1	<1
Lead, total	<4	<4
Methane		
Methyl iodide	<1	<1
Methylene chloride	<5	<5
Nickel, total	43.5	8.2
pH		
Selenium, total	<4.0	<4.0
Silver, total	<4	<4
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	<1.0	<1.0
Trichlorofluoromethane	<1	<1
Vanadium, total	<20	<20
Vinyl acetate	<5	<5
Vinyl chloride	<1.0	2.7
Xylenes, total	<2	<2
Zinc, total	<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  
Shallow Ground Water

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Antimony, total	ug/L	MW-18	09/23/2014	ND	2.0000		
Antimony, total	ug/L	MW-18	12/02/2014	ND	2.0000		
Antimony, total	ug/L	MW-18	03/19/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	06/17/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	08/27/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	03/03/2016		2.6000		
Antimony, total	ug/L	MW-18	09/20/2016	ND	2.0000		
Antimony, total	ug/L	MW-18	03/09/2017	ND	2.0000		
Antimony, total	ug/L	MW-18	09/14/2017	ND	2.0000		
Antimony, total	ug/L	MW-18	03/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-18	09/10/2018	ND	2.0000		
Antimony, total	ug/L	MW-18	03/26/2019	ND	2.0000		
Antimony, total	ug/L	MW-18	09/16/2019	ND	2.0000		
Antimony, total	ug/L	MW-18	03/24/2020	ND	2.0000		
Antimony, total	ug/L	MW-18	09/02/2020	ND	2.0000		
Antimony, total	ug/L	MW-18	03/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-18	09/14/2021	ND	2.0000		
Antimony, total	ug/L	MW-18	03/28/2022		2.1000		
Antimony, total	ug/L	MW-18	09/13/2022	ND	2.0000		
Antimony, total	ug/L	MW-18	03/23/2023		4.2000		
Antimony, total	ug/L	MW-18	09/05/2023		5.5000		
Antimony, total	ug/L	MW-18	09/18/2024		2.4000		
Arsenic, total	ug/L	MW-18	09/23/2014		23.0000		
Arsenic, total	ug/L	MW-18	12/02/2014		38.7000		
Arsenic, total	ug/L	MW-18	03/19/2015		30.7000		
Arsenic, total	ug/L	MW-18	06/17/2015		53.7000		
Arsenic, total	ug/L	MW-18	08/27/2015		26.8000		
Arsenic, total	ug/L	MW-18	03/03/2016		97.7000		*
Arsenic, total	ug/L	MW-18	09/20/2016		33.2000		
Arsenic, total	ug/L	MW-18	03/09/2017		34.0000		
Arsenic, total	ug/L	MW-18	07/12/2017		22.3000		
Arsenic, total	ug/L	MW-18	09/14/2017		8.3000		
Arsenic, total	ug/L	MW-18	12/13/2017		7.2000		
Arsenic, total	ug/L	MW-18	03/12/2018		11.6000		
Arsenic, total	ug/L	MW-18	09/10/2018		11.4000		
Arsenic, total	ug/L	MW-18	03/26/2019		26.1000		
Arsenic, total	ug/L	MW-18	09/16/2019		13.0000		
Arsenic, total	ug/L	MW-18	03/24/2020		10.7000		
Arsenic, total	ug/L	MW-18	09/02/2020		14.3000		
Arsenic, total	ug/L	MW-18	03/08/2021		14.2000		
Arsenic, total	ug/L	MW-18	09/14/2021		15.3000		
Arsenic, total	ug/L	MW-18	03/28/2022		26.8000		
Arsenic, total	ug/L	MW-18	09/13/2022		34.0000		
Arsenic, total	ug/L	MW-18	03/23/2023		79.4000		*
Arsenic, total	ug/L	MW-18	09/05/2023		26.8000		
Arsenic, total	ug/L	MW-18	09/18/2024		4.8000		
Barium, total	ug/L	MW-18	09/23/2014		407.0000		
Barium, total	ug/L	MW-18	12/02/2014		459.0000		
Barium, total	ug/L	MW-18	03/19/2015		436.0000		
Barium, total	ug/L	MW-18	06/17/2015		377.0000		
Barium, total	ug/L	MW-18	08/27/2015		392.0000		
Barium, total	ug/L	MW-18	03/03/2016		486.0000		
Barium, total	ug/L	MW-18	09/20/2016		320.0000		
Barium, total	ug/L	MW-18	03/09/2017		465.0000		
Barium, total	ug/L	MW-18	09/14/2017		452.0000		
Barium, total	ug/L	MW-18	03/12/2018		410.0000		
Barium, total	ug/L	MW-18	09/10/2018		374.0000		
Barium, total	ug/L	MW-18	03/26/2019		352.0000		
Barium, total	ug/L	MW-18	09/16/2019		559.0000		
Barium, total	ug/L	MW-18	03/24/2020		330.0000		
Barium, total	ug/L	MW-18	09/02/2020		478.0000		
Barium, total	ug/L	MW-18	03/08/2021		463.0000		
Barium, total	ug/L	MW-18	09/14/2021		499.0000		
Barium, total	ug/L	MW-18	03/28/2022		479.0000		
Barium, total	ug/L	MW-18	09/13/2022		551.0000		
Barium, total	ug/L	MW-18	03/23/2023		655.0000		
Barium, total	ug/L	MW-18	09/05/2023		509.0000		
Barium, total	ug/L	MW-18	09/18/2024		477.0000		
Beryllium, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Beryllium, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Beryllium, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Beryllium, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/03/2016	ND	4.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/28/2022	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/13/2022	ND	4.0000		
Beryllium, total	ug/L	MW-18	03/23/2023	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/05/2023	ND	4.0000		
Beryllium, total	ug/L	MW-18	09/18/2024	ND	4.0000		
Cadmium, total	ug/L	MW-18	09/23/2014	ND	0.8000		
Cadmium, total	ug/L	MW-18	12/02/2014	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/19/2015	ND	0.8000		
Cadmium, total	ug/L	MW-18	06/17/2015	ND	0.8000		
Cadmium, total	ug/L	MW-18	08/27/2015	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/03/2016	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/20/2016	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/09/2017	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/14/2017		1.3000		
Cadmium, total	ug/L	MW-18	03/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/26/2019	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/24/2020	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-18	09/14/2021	ND	0.8000		
Cadmium, total	ug/L	MW-18	03/28/2022		1.3000		
Cadmium, total	ug/L	MW-18	09/13/2022		1.1000		
Cadmium, total	ug/L	MW-18	03/23/2023		3.9000		*
Cadmium, total	ug/L	MW-18	09/05/2023		1.8000		
Cadmium, total	ug/L	MW-18	09/18/2024		2.5000		*
Chromium, total	ug/L	MW-18	09/23/2014	ND	8.0000		
Chromium, total	ug/L	MW-18	12/02/2014	ND	8.0000		
Chromium, total	ug/L	MW-18	03/19/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	06/17/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	08/27/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	03/03/2016	ND	8.0000		
Chromium, total	ug/L	MW-18	09/20/2016	ND	8.0000		
Chromium, total	ug/L	MW-18	03/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-18	09/14/2017		10.4000		
Chromium, total	ug/L	MW-18	03/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-18	09/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-18	03/26/2019	ND	8.0000		
Chromium, total	ug/L	MW-18	09/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-18	03/24/2020	ND	8.0000		
Chromium, total	ug/L	MW-18	09/02/2020	ND	8.0000		
Chromium, total	ug/L	MW-18	03/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-18	09/14/2021	ND	8.0000		
Chromium, total	ug/L	MW-18	03/28/2022	ND	8.0000		
Chromium, total	ug/L	MW-18	09/13/2022	ND	8.0000		
Chromium, total	ug/L	MW-18	03/23/2023	ND	8.0000		
Chromium, total	ug/L	MW-18	09/05/2023	ND	8.0000		
Chromium, total	ug/L	MW-18	09/18/2024	ND	8.0000		
Cobalt, total	ug/L	MW-18	09/23/2014		0.8000		
Cobalt, total	ug/L	MW-18	12/02/2014		1.2000		
Cobalt, total	ug/L	MW-18	03/19/2015		1.3000		
Cobalt, total	ug/L	MW-18	06/17/2015		1.4000		
Cobalt, total	ug/L	MW-18	08/27/2015		0.9000		
Cobalt, total	ug/L	MW-18	03/03/2016		2.1000		
Cobalt, total	ug/L	MW-18	09/20/2016		3.5000		
Cobalt, total	ug/L	MW-18	03/09/2017		1.9000		
Cobalt, total	ug/L	MW-18	09/14/2017		3.1000		
Cobalt, total	ug/L	MW-18	03/12/2018	ND	2.0000	0.8000	**
Cobalt, total	ug/L	MW-18	09/10/2018		0.9000		
Cobalt, total	ug/L	MW-18	03/26/2019		1.6000		
Cobalt, total	ug/L	MW-18	09/16/2019		1.0000		
Cobalt, total	ug/L	MW-18	03/24/2020	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
Cobalt, total	ug/L	MW-18	09/02/2020		0.8000	
Cobalt, total	ug/L	MW-18	03/08/2021		1.1000	
Cobalt, total	ug/L	MW-18	09/14/2021		1.7000	
Cobalt, total	ug/L	MW-18	03/28/2022		0.7000	
Cobalt, total	ug/L	MW-18	09/13/2022		7.2000	
Cobalt, total	ug/L	MW-18	03/23/2023		2.9000	
Cobalt, total	ug/L	MW-18	09/05/2023		2.2000	
Cobalt, total	ug/L	MW-18	09/18/2024		2.3000	
Copper, total	ug/L	MW-18	09/23/2014	ND	4.0000	
Copper, total	ug/L	MW-18	12/02/2014	ND	4.0000	
Copper, total	ug/L	MW-18	03/19/2015	ND	4.0000	
Copper, total	ug/L	MW-18	06/17/2015	ND	4.0000	
Copper, total	ug/L	MW-18	08/27/2015	ND	4.0000	
Copper, total	ug/L	MW-18	03/03/2016	ND	4.0000	
Copper, total	ug/L	MW-18	09/20/2016	ND	4.0000	
Copper, total	ug/L	MW-18	03/09/2017	ND	4.0000	
Copper, total	ug/L	MW-18	09/14/2017		6.3000	
Copper, total	ug/L	MW-18	03/12/2018	ND	4.0000	
Copper, total	ug/L	MW-18	09/10/2018		5.2000	
Copper, total	ug/L	MW-18	03/26/2019	ND	4.0000	
Copper, total	ug/L	MW-18	09/16/2019	ND	4.0000	
Copper, total	ug/L	MW-18	03/24/2020	ND	4.0000	
Copper, total	ug/L	MW-18	09/02/2020	ND	4.0000	
Copper, total	ug/L	MW-18	03/08/2021	ND	4.0000	
Copper, total	ug/L	MW-18	09/14/2021	ND	4.0000	
Copper, total	ug/L	MW-18	03/28/2022		6.7000	
Copper, total	ug/L	MW-18	09/13/2022		12.0000	
Copper, total	ug/L	MW-18	03/23/2023		9.9000	
Copper, total	ug/L	MW-18	09/05/2023		5.9000	
Copper, total	ug/L	MW-18	09/18/2024		4.7000	
Lead, total	ug/L	MW-18	09/23/2014	ND	4.0000	
Lead, total	ug/L	MW-18	12/02/2014	ND	4.0000	
Lead, total	ug/L	MW-18	03/19/2015	ND	4.0000	
Lead, total	ug/L	MW-18	06/17/2015	ND	4.0000	
Lead, total	ug/L	MW-18	08/27/2015	ND	4.0000	
Lead, total	ug/L	MW-18	03/03/2016	ND	4.0000	
Lead, total	ug/L	MW-18	09/20/2016	ND	4.0000	
Lead, total	ug/L	MW-18	03/09/2017	ND	4.0000	
Lead, total	ug/L	MW-18	09/14/2017	ND	4.0000	
Lead, total	ug/L	MW-18	03/12/2018	ND	4.0000	
Lead, total	ug/L	MW-18	09/10/2018	ND	4.0000	
Lead, total	ug/L	MW-18	03/26/2019	ND	4.0000	
Lead, total	ug/L	MW-18	09/16/2019	ND	4.0000	
Lead, total	ug/L	MW-18	03/24/2020	ND	4.0000	
Lead, total	ug/L	MW-18	09/02/2020	ND	4.0000	
Lead, total	ug/L	MW-18	03/08/2021	ND	4.0000	
Lead, total	ug/L	MW-18	09/14/2021	ND	4.0000	
Lead, total	ug/L	MW-18	03/28/2022	ND	4.0000	
Lead, total	ug/L	MW-18	09/13/2022	ND	4.0000	
Lead, total	ug/L	MW-18	03/23/2023	ND	4.0000	
Lead, total	ug/L	MW-18	09/05/2023	ND	4.0000	
Lead, total	ug/L	MW-18	09/18/2024	ND	4.0000	
Nickel, total	ug/L	MW-18	09/23/2014		5.0000	
Nickel, total	ug/L	MW-18	12/02/2014		5.4000	
Nickel, total	ug/L	MW-18	03/19/2015		6.3000	
Nickel, total	ug/L	MW-18	06/17/2015		10.3000	
Nickel, total	ug/L	MW-18	08/27/2015		6.8000	
Nickel, total	ug/L	MW-18	03/03/2016		12.7000	
Nickel, total	ug/L	MW-18	09/20/2016	ND	4.0000	
Nickel, total	ug/L	MW-18	03/09/2017		5.3000	
Nickel, total	ug/L	MW-18	09/14/2017		16.1000	
Nickel, total	ug/L	MW-18	03/12/2018	ND	4.0000	
Nickel, total	ug/L	MW-18	09/10/2018		4.4000	
Nickel, total	ug/L	MW-18	03/26/2019		7.2000	
Nickel, total	ug/L	MW-18	09/16/2019		4.7000	
Nickel, total	ug/L	MW-18	03/24/2020		4.4000	
Nickel, total	ug/L	MW-18	09/02/2020	ND	4.0000	
Nickel, total	ug/L	MW-18	03/08/2021	ND	4.0000	
Nickel, total	ug/L	MW-18	09/14/2021		10.7000	
Nickel, total	ug/L	MW-18	03/28/2022		8.4000	
Nickel, total	ug/L	MW-18	09/13/2022		11.3000	
Nickel, total	ug/L	MW-18	03/23/2023		23.8000	
Nickel, total	ug/L	MW-18	09/05/2023		14.0000	
Nickel, total	ug/L	MW-18	09/18/2024		33.6000	

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Selenium, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Selenium, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Selenium, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Selenium, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Selenium, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Selenium, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Selenium, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Selenium, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-18	03/28/2022		5.1000		
Selenium, total	ug/L	MW-18	09/13/2022		8.7000		
Selenium, total	ug/L	MW-18	03/23/2023		16.2000		
Selenium, total	ug/L	MW-18	09/05/2023		8.0000		
Selenium, total	ug/L	MW-18	09/18/2024		8.9000		
Silver, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Silver, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Silver, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Silver, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Silver, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Silver, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Silver, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Silver, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Silver, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Silver, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Silver, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Silver, total	ug/L	MW-18	03/26/2019	ND	4.0000		
Silver, total	ug/L	MW-18	09/16/2019	ND	4.0000		
Silver, total	ug/L	MW-18	03/24/2020	ND	4.0000		
Silver, total	ug/L	MW-18	09/02/2020	ND	4.0000		
Silver, total	ug/L	MW-18	03/08/2021	ND	4.0000		
Silver, total	ug/L	MW-18	09/14/2021	ND	4.0000		
Silver, total	ug/L	MW-18	03/28/2022	ND	4.0000		
Silver, total	ug/L	MW-18	09/13/2022	ND	4.0000		
Silver, total	ug/L	MW-18	03/23/2023	ND	4.0000		
Silver, total	ug/L	MW-18	09/05/2023	ND	4.0000		
Silver, total	ug/L	MW-18	09/18/2024	ND	4.0000		
Thallium, total	ug/L	MW-18	09/23/2014	ND	4.0000		
Thallium, total	ug/L	MW-18	12/02/2014	ND	4.0000		
Thallium, total	ug/L	MW-18	03/19/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	06/17/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	08/27/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	03/03/2016	ND	4.0000		
Thallium, total	ug/L	MW-18	09/20/2016	ND	4.0000		
Thallium, total	ug/L	MW-18	03/09/2017	ND	4.0000		
Thallium, total	ug/L	MW-18	09/14/2017	ND	4.0000		
Thallium, total	ug/L	MW-18	03/12/2018	ND	4.0000		
Thallium, total	ug/L	MW-18	09/10/2018	ND	4.0000		
Thallium, total	ug/L	MW-18	03/26/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/16/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/24/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/02/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/08/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/14/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/28/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/13/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	03/23/2023	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/05/2023	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	09/18/2024	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW-18	09/23/2014	ND	20.0000		
Vanadium, total	ug/L	MW-18	12/02/2014	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/19/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	06/17/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	08/27/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/03/2016	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/20/2016	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/09/2017	ND	20.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-18	09/14/2017		30.7000		
Vanadium, total	ug/L	MW-18	03/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/26/2019	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/24/2020	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/14/2021	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/28/2022	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/13/2022	ND	20.0000		
Vanadium, total	ug/L	MW-18	03/23/2023	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/05/2023	ND	20.0000		
Vanadium, total	ug/L	MW-18	09/18/2024	ND	20.0000		
Zinc, total	ug/L	MW-18	09/23/2014		11.9000		
Zinc, total	ug/L	MW-18	12/02/2014		11.3000		
Zinc, total	ug/L	MW-18	03/19/2015	ND	8.0000		
Zinc, total	ug/L	MW-18	06/17/2015		23.7000		
Zinc, total	ug/L	MW-18	08/27/2015		13.5000		
Zinc, total	ug/L	MW-18	03/03/2016		18.8000		
Zinc, total	ug/L	MW-18	09/20/2016		8.7000		
Zinc, total	ug/L	MW-18	03/09/2017	ND	8.0000		
Zinc, total	ug/L	MW-18	09/14/2017		53.3000		
Zinc, total	ug/L	MW-18	03/12/2018	ND	8.0000		
Zinc, total	ug/L	MW-18	09/10/2018		27.3000		
Zinc, total	ug/L	MW-18	03/26/2019		13.7000		
Zinc, total	ug/L	MW-18	09/16/2019		20.6000		
Zinc, total	ug/L	MW-18	03/24/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	09/02/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	03/08/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	09/14/2021		34.6000		
Zinc, total	ug/L	MW-18	03/28/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	09/13/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	03/23/2023		51.2000		
Zinc, total	ug/L	MW-18	09/05/2023		48.1000		
Zinc, total	ug/L	MW-18	09/18/2024		73.5000		
Antimony, total	ug/L	MW-4A	09/23/2014	ND	2.0000		
Antimony, total	ug/L	MW-4A	12/02/2014	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/19/2015	ND	2.0000		
Antimony, total	ug/L	MW-4A	06/17/2015	ND	2.0000		
Antimony, total	ug/L	MW-4A	08/27/2015	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/03/2016	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/20/2016	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/09/2017	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/14/2017	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/10/2018	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/26/2019	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/16/2019	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/24/2020	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/02/2020	ND	2.0000		
Antimony, total	ug/L	MW-4A	03/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-4A	09/14/2021	ND	2.0000		
Arsenic, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Arsenic, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Arsenic, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Arsenic, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Arsenic, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Barium, total	ug/L	MW-4A	09/23/2014		367.0000		
Barium, total	ug/L	MW-4A	12/02/2014		418.0000		
Barium, total	ug/L	MW-4A	03/19/2015		322.0000		
Barium, total	ug/L	MW-4A	06/17/2015		267.0000		

\* - 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-4A	08/27/2015		390.0000		
Barium, total	ug/L	MW-4A	03/03/2016		378.0000		
Barium, total	ug/L	MW-4A	09/20/2016		380.0000		
Barium, total	ug/L	MW-4A	03/09/2017		265.0000		
Barium, total	ug/L	MW-4A	09/14/2017		365.0000		
Barium, total	ug/L	MW-4A	03/12/2018		313.0000		
Barium, total	ug/L	MW-4A	09/10/2018		316.0000		
Barium, total	ug/L	MW-4A	03/26/2019		232.0000		
Barium, total	ug/L	MW-4A	09/16/2019		346.0000		
Barium, total	ug/L	MW-4A	03/24/2020		250.0000		
Barium, total	ug/L	MW-4A	09/02/2020		360.0000		
Barium, total	ug/L	MW-4A	03/08/2021		296.0000		
Barium, total	ug/L	MW-4A	09/14/2021		344.0000		
Beryllium, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Beryllium, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Beryllium, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Beryllium, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Beryllium, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Cadmium, total	ug/L	MW-4A	09/23/2014	ND	0.8000		
Cadmium, total	ug/L	MW-4A	12/02/2014	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/19/2015	ND	0.8000		
Cadmium, total	ug/L	MW-4A	06/17/2015	ND	0.8000		
Cadmium, total	ug/L	MW-4A	08/27/2015	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/03/2016	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/20/2016	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/09/2017	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/14/2017	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/26/2019	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/24/2020	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-4A	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-4A	09/14/2021	ND	0.8000		
Chromium, total	ug/L	MW-4A	09/23/2014	ND	8.0000		
Chromium, total	ug/L	MW-4A	12/02/2014	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/19/2015	ND	8.0000		
Chromium, total	ug/L	MW-4A	06/17/2015	ND	8.0000		
Chromium, total	ug/L	MW-4A	08/27/2015	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/03/2016	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/20/2016	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/14/2017	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/26/2019	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/24/2020	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/02/2020	ND	8.0000		
Chromium, total	ug/L	MW-4A	03/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-4A	09/14/2021	ND	8.0000		
Cobalt, total	ug/L	MW-4A	09/23/2014	ND	0.8000		
Cobalt, total	ug/L	MW-4A	12/02/2014	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/19/2015	ND	0.8000		
Cobalt, total	ug/L	MW-4A	06/17/2015	ND	0.8000		
Cobalt, total	ug/L	MW-4A	08/27/2015	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/03/2016	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/20/2016	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/09/2017	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/14/2017	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/12/2018	ND	2.0000	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	
Cobalt, total	ug/L	MW-4A	09/10/2018	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/26/2019	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/16/2019	ND	0.8000		
Cobalt, total	ug/L	MW-4A	03/24/2020	ND	0.8000		
Cobalt, total	ug/L	MW-4A	09/02/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-4A	03/08/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-4A	09/14/2021	ND	0.4000	0.8000	**
Copper, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Copper, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Copper, total	ug/L	MW-4A	03/19/2015		30.1000		*
Copper, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Copper, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Copper, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Copper, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Copper, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Copper, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Copper, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Copper, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Copper, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Copper, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Copper, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Copper, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Copper, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Copper, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Lead, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Lead, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Lead, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Lead, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Lead, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Lead, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Lead, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Lead, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Lead, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Lead, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Lead, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Lead, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Lead, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Lead, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Lead, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Lead, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Lead, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Nickel, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Nickel, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Nickel, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Nickel, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Selenium, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/19/2015		4.0000		
Selenium, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Selenium, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Selenium, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-4A	03/08/2021	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	
Selenium, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Silver, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Silver, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Silver, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Silver, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Silver, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Silver, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Silver, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Silver, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Silver, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Silver, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Silver, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Silver, total	ug/L	MW-4A	03/26/2019	ND	4.0000		
Silver, total	ug/L	MW-4A	09/16/2019	ND	4.0000		
Silver, total	ug/L	MW-4A	03/24/2020	ND	4.0000		
Silver, total	ug/L	MW-4A	09/02/2020	ND	4.0000		
Silver, total	ug/L	MW-4A	03/08/2021	ND	4.0000		
Silver, total	ug/L	MW-4A	09/14/2021	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/23/2014	ND	4.0000		
Thallium, total	ug/L	MW-4A	12/02/2014	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/19/2015	ND	4.0000		
Thallium, total	ug/L	MW-4A	06/17/2015	ND	4.0000		
Thallium, total	ug/L	MW-4A	08/27/2015	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/03/2016	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/20/2016	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/09/2017	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/14/2017	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/12/2018	ND	4.0000		
Thallium, total	ug/L	MW-4A	09/10/2018	ND	4.0000		
Thallium, total	ug/L	MW-4A	03/26/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	09/16/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	03/24/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	09/02/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	03/08/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-4A	09/14/2021	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW-4A	09/23/2014	ND	20.0000		
Vanadium, total	ug/L	MW-4A	12/02/2014	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/19/2015	ND	20.0000		
Vanadium, total	ug/L	MW-4A	06/17/2015	ND	20.0000		
Vanadium, total	ug/L	MW-4A	08/27/2015	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/03/2016	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/20/2016	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/09/2017	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/14/2017	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/26/2019	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/24/2020	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-4A	03/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-4A	09/14/2021	ND	20.0000		
Zinc, total	ug/L	MW-4A	09/23/2014	ND	8.0000		
Zinc, total	ug/L	MW-4A	12/02/2014	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/19/2015		14.7000		
Zinc, total	ug/L	MW-4A	06/17/2015	ND	8.0000		
Zinc, total	ug/L	MW-4A	08/27/2015	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/03/2016	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/20/2016	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/09/2017	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/14/2017	ND	8.0000		
Zinc, total	ug/L	MW-4A	03/12/2018	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/10/2018		14.1000		
Zinc, total	ug/L	MW-4A	03/26/2019	ND	8.0000		
Zinc, total	ug/L	MW-4A	09/16/2019	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	03/24/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	09/02/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	03/08/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-4A	09/14/2021	ND	20.0000	8.0000	**

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

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	GU-2	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	GU-2	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	GU-2	09/18/2024		230.0000		624.2924
Beryllium, total	ug/L	GU-2	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	GU-2	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	GU-2	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	GU-2	09/18/2024	ND	0.4000		4.2267
Copper, total	ug/L	GU-2	09/18/2024		4.0000		12.0000
Lead, total	ug/L	GU-2	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	GU-2	09/18/2024		20.6000		33.6000
Selenium, total	ug/L	GU-2	09/18/2024	ND	4.0000	**	16.2000
Silver, total	ug/L	GU-2	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	GU-2	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	GU-2	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	GU-2	09/18/2024		320.0000	***	73.5000
Antimony, total	ug/L	GU-A	09/18/2024		2.7000		5.5000
Arsenic, total	ug/L	GU-A	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	GU-A	09/18/2024		44.8000		624.2924
Beryllium, total	ug/L	GU-A	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	GU-A	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	GU-A	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	GU-A	09/18/2024		3.5000		4.2267
Copper, total	ug/L	GU-A	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	GU-A	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	GU-A	09/18/2024		77.5000	*	33.6000
Selenium, total	ug/L	GU-A	09/18/2024	ND	4.0000	**	16.2000
Silver, total	ug/L	GU-A	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	GU-A	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	GU-A	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	GU-A	09/18/2024		739.0000	***	73.5000
Antimony, total	ug/L	GU-B	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	GU-B	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	GU-B	09/18/2024		277.0000		624.2924
Beryllium, total	ug/L	GU-B	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	GU-B	09/18/2024		1.2000		1.8000
Chromium, total	ug/L	GU-B	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	GU-B	09/18/2024		10.2000	*	4.2267
Copper, total	ug/L	GU-B	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	GU-B	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	GU-B	09/18/2024		33.3000	**	33.6000
Selenium, total	ug/L	GU-B	09/18/2024		8.3000		16.2000
Silver, total	ug/L	GU-B	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	GU-B	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	GU-B	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	GU-B	09/18/2024		65.2000	**	73.5000
Antimony, total	ug/L	MW-21	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	MW-21	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	MW-21	09/18/2024		146.0000		624.2924
Beryllium, total	ug/L	MW-21	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-21	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	MW-21	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	MW-21	09/18/2024	ND	0.4000		4.2267
Copper, total	ug/L	MW-21	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	MW-21	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-21	09/18/2024	ND	4.0000		33.6000
Selenium, total	ug/L	MW-21	09/18/2024	ND	4.0000		16.2000
Silver, total	ug/L	MW-21	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-21	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-21	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	MW-21	09/18/2024	ND	20.0000		73.5000
Antimony, total	ug/L	MW-44	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	MW-44	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	MW-44	09/18/2024		662.0000	***	624.2924
Beryllium, total	ug/L	MW-44	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-44	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	MW-44	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	MW-44	09/18/2024		0.5000		4.2267
Copper, total	ug/L	MW-44	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	MW-44	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-44	09/18/2024	ND	4.0000		33.6000
Selenium, total	ug/L	MW-44	09/18/2024	ND	4.0000		16.2000
Silver, total	ug/L	MW-44	09/18/2024	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-44	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-44	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	MW-44	09/18/2024	ND	20.0000		73.5000
Antimony, total	ug/L	MW-45A	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	MW-45A	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	MW-45A	09/18/2024		98.9000		624.2924
Beryllium, total	ug/L	MW-45A	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-45A	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	MW-45A	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	MW-45A	09/18/2024		7.0000	*	4.2267
Copper, total	ug/L	MW-45A	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	MW-45A	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-45A	09/18/2024		4.5000		33.6000
Selenium, total	ug/L	MW-45A	09/18/2024	ND	4.0000		16.2000
Silver, total	ug/L	MW-45A	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-45A	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-45A	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	MW-45A	09/18/2024	ND	20.0000		73.5000
Antimony, total	ug/L	MW-6A	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	MW-6A	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	MW-6A	09/18/2024		80.2000		624.2924
Beryllium, total	ug/L	MW-6A	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-6A	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	MW-6A	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	MW-6A	09/18/2024		4.9000	*	4.2267
Copper, total	ug/L	MW-6A	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	MW-6A	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-6A	09/18/2024		22.6000		33.6000
Selenium, total	ug/L	MW-6A	09/18/2024	ND	4.0000		16.2000
Silver, total	ug/L	MW-6A	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-6A	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-6A	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	MW-6A	09/18/2024	ND	20.0000		73.5000
Antimony, total	ug/L	TILE 1	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	TILE 1	09/18/2024		8.8000		47.9881
Barium, total	ug/L	TILE 1	09/18/2024		2340.0000	***	624.2924
Beryllium, total	ug/L	TILE 1	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	TILE 1	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	TILE 1	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	TILE 1	09/18/2024		3.2000		4.2267
Copper, total	ug/L	TILE 1	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	TILE 1	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	TILE 1	09/18/2024		43.5000	***	33.6000
Selenium, total	ug/L	TILE 1	09/18/2024	ND	4.0000		16.2000
Silver, total	ug/L	TILE 1	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	TILE 1	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	TILE 1	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	TILE 1	09/18/2024	ND	20.0000		73.5000
Antimony, total	ug/L	TILE 2	09/18/2024	ND	2.0000		5.5000
Arsenic, total	ug/L	TILE 2	09/18/2024	ND	4.0000		47.9881
Barium, total	ug/L	TILE 2	09/18/2024		638.0000	*	624.2924
Beryllium, total	ug/L	TILE 2	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	TILE 2	09/18/2024	ND	0.8000		1.8000
Chromium, total	ug/L	TILE 2	09/18/2024	ND	8.0000		10.4000
Cobalt, total	ug/L	TILE 2	09/18/2024		1.8000		4.2267
Copper, total	ug/L	TILE 2	09/18/2024	ND	4.0000		12.0000
Lead, total	ug/L	TILE 2	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	TILE 2	09/18/2024		8.2000		33.6000
Selenium, total	ug/L	TILE 2	09/18/2024	ND	4.0000		16.2000
Silver, total	ug/L	TILE 2	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	TILE 2	09/18/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	TILE 2	09/18/2024	ND	20.0000		30.7000
Zinc, total	ug/L	TILE 2	09/18/2024	ND	20.0000		73.5000

\* - 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	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, total	5	39	0.128	16	93	0.172
Arsenic, total	22	39	0.564	14	93	0.151
Barium, total	39	39	1.000	95	95	1.000
Beryllium, total	0	39	0.000	1	93	0.011
Cadmium, total	4	37	0.108	5	93	0.054
Chromium, total	1	39	0.026	1	93	0.011
Cobalt, total	20	39	0.513	59	94	0.628
Copper, total	7	38	0.184	6	93	0.065
Lead, total	0	39	0.000	3	93	0.032
Nickel, total	18	39	0.462	71	94	0.755
Selenium, total	6	39	0.154	14	93	0.151
Silver, total	0	39	0.000	0	93	0.000
Thallium, total	0	39	0.000	0	93	0.000
Vanadium, total	1	39	0.026	1	93	0.011
Zinc, total	16	39	0.410	29	93	0.312

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	5	39	0.128	0.670	0.256					2.326	normal	nonpar
Arsenic, total	22	39	0.564	0.897	0.114					2.326	normal	normal
Barium, total	39	39	1.000	0.321	0.341					2.326	normal	normal
Beryllium, total	0	39	0.000									nonpar
Cadmium, total	4	37	0.108	0.611	0.221					2.326	normal	nonpar
Chromium, total	1	39	0.026									nonpar
Cobalt, total	20	39	0.513	4.099	0.402					2.326	lognor	lognor
Copper, total	7	38	0.184	1.084	0.315					2.326	normal	nonpar
Lead, total	0	39	0.000									nonpar
Nickel, total	18	39	0.462	3.426	0.980					2.326	lognor	nonpar
Selenium, total	6	39	0.154	0.809	0.210					2.326	normal	nonpar
Silver, total	0	39	0.000									nonpar
Thallium, total	0	39	0.000									nonpar
Vanadium, total	1	39	0.026									nonpar
Zinc, total	16	39	0.410	1.629	0.052					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	5	39					5.5000	nonpar	0.99
Arsenic, total	ug/L	22	39	12.4846	14.4360	0.0100	2.4594	47.9881	normal	
Barium, total	ug/L	39	39	398.4359	91.8347	0.0100	2.4594	624.2924	normal	
Beryllium, total	ug/L	0	39					4.0000	nonpar	*** 0.99
Cadmium, total	ug/L	4	37					1.8000	nonpar	0.99
Chromium, total	ug/L	1	39					10.4000	nonpar	0.99
Cobalt, total	ug/L	20	39	0.2382	0.4892	0.0100	2.4594	4.2267	lognor	
Copper, total	ug/L	7	38					12.0000	nonpar	0.99
Lead, total	ug/L	0	39					4.0000	nonpar	*** 0.99
Nickel, total	ug/L	18	39					33.6000	nonpar	0.99
Selenium, total	ug/L	6	39					16.2000	nonpar	0.99
Silver, total	ug/L	0	39					4.0000	nonpar	*** 0.99
Thallium, total	ug/L	0	39					4.0000	nonpar	*** 0.99
Vanadium, total	ug/L	1	39					30.7000	nonpar	0.99
Zinc, total	ug/L	16	39					73.5000	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
Cadmium, total	ug/L	MW-18	03/23/2023	3.9000		09/23/2014-09/18/2024	22	0.5263
Cadmium, total	ug/L	MW-18	09/18/2024	2.5000		09/23/2014-09/18/2024	22	0.5263
Copper, total	ug/L	MW-4A	03/19/2015	30.1000		09/23/2014-09/14/2021	17	0.5798

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-2	11/13/2023	ND	4.0000	16.2000
Selenium, total	ug/L	GU-2	12/05/2023	ND	4.0000	16.2000
Selenium, total	ug/L	GU-2	01/08/2024	ND	4.0000	16.2000
Selenium, total	ug/L	GU-2	03/06/2024		168.0000 *	16.2000
Selenium, total	ug/L	GU-2	06/03/2024		320.0000 *	16.2000
Selenium, total	ug/L	GU-2	09/18/2024	ND	4.0000	16.2000
Zinc, total	ug/L	GU-2	11/13/2023	ND	20.0000	73.5000
Zinc, total	ug/L	GU-2	12/05/2023		666.0000 *	73.5000
Zinc, total	ug/L	GU-2	01/08/2024		725.0000 *	73.5000
Zinc, total	ug/L	GU-2	03/06/2024		691.0000 *	73.5000
Zinc, total	ug/L	GU-2	06/03/2024		238.0000 *	73.5000
Zinc, total	ug/L	GU-2	09/18/2024		320.0000 *	73.5000
Nickel, total	ug/L	GU-A	12/05/2023		27.5000	33.6000
Nickel, total	ug/L	GU-A	01/08/2024		46.8000 *	33.6000
Nickel, total	ug/L	GU-A	03/06/2024		36.9000 *	33.6000
Nickel, total	ug/L	GU-A	06/03/2024		27.5000	33.6000
Nickel, total	ug/L	GU-A	09/18/2024		77.5000 *	33.6000
Selenium, total	ug/L	GU-A	12/05/2023		25.3000 *	16.2000
Selenium, total	ug/L	GU-A	01/08/2024		25.2000 *	16.2000
Selenium, total	ug/L	GU-A	03/06/2024		19.6000 *	16.2000
Selenium, total	ug/L	GU-A	06/03/2024		23.2000 *	16.2000
Selenium, total	ug/L	GU-A	09/18/2024	ND	4.0000	16.2000
Zinc, total	ug/L	GU-A	12/05/2023		1350.0000 *	73.5000
Zinc, total	ug/L	GU-A	01/08/2024		323.0000 *	73.5000
Zinc, total	ug/L	GU-A	03/06/2024		877.0000 *	73.5000
Zinc, total	ug/L	GU-A	06/03/2024		160.0000 *	73.5000
Zinc, total	ug/L	GU-A	09/18/2024		739.0000 *	73.5000
Cobalt, total	ug/L	GU-B	11/13/2023		1.0000	4.2267
Cobalt, total	ug/L	GU-B	12/05/2023		0.7000	4.2267
Cobalt, total	ug/L	GU-B	01/08/2024		0.6000	4.2267
Cobalt, total	ug/L	GU-B	03/06/2024		1.7000	4.2267
Cobalt, total	ug/L	GU-B	06/03/2024	ND	0.4000	4.2267
Cobalt, total	ug/L	GU-B	09/18/2024		10.2000 *	4.2267
Nickel, total	ug/L	GU-B	11/13/2023		20.7000	33.6000
Nickel, total	ug/L	GU-B	12/05/2023		15.0000	33.6000
Nickel, total	ug/L	GU-B	01/08/2024		17.6000	33.6000
Nickel, total	ug/L	GU-B	03/06/2024		41.0000 *	33.6000
Nickel, total	ug/L	GU-B	06/03/2024		55.9000 *	33.6000
Nickel, total	ug/L	GU-B	09/18/2024		33.3000	33.6000
Zinc, total	ug/L	GU-B	11/13/2023	ND	20.0000	73.5000
Zinc, total	ug/L	GU-B	12/05/2023		513.0000 *	73.5000
Zinc, total	ug/L	GU-B	01/08/2024		167.0000 *	73.5000
Zinc, total	ug/L	GU-B	03/06/2024		93.2000 *	73.5000
Zinc, total	ug/L	GU-B	06/03/2024		783.0000 *	73.5000
Zinc, total	ug/L	GU-B	09/18/2024		65.2000	73.5000
Barium, total	ug/L	MW-44	07/12/2023		624.0000	624.2924
Barium, total	ug/L	MW-44	09/05/2023		708.0000 *	624.2924
Barium, total	ug/L	MW-44	11/28/2023		803.0000 *	624.2924
Barium, total	ug/L	MW-44	03/06/2024		795.0000 *	624.2924
Barium, total	ug/L	MW-44	09/18/2024		662.0000 *	624.2924
Cobalt, total	ug/L	MW-45A	03/06/2024	ND	0.4000	4.2267
Cobalt, total	ug/L	MW-45A	06/03/2024	ND	0.4000	4.2267
Cobalt, total	ug/L	MW-45A	09/18/2024		7.0000 *	4.2267
Cobalt, total	ug/L	MW-6A	09/20/2013	ND	4.0000	4.2267
Cobalt, total	ug/L	MW-6A	03/28/2014	ND	4.0000	4.2267
Cobalt, total	ug/L	MW-6A	09/23/2014		2.5000	4.2267
Cobalt, total	ug/L	MW-6A	03/18/2015	ND	0.8000	4.2267
Cobalt, total	ug/L	MW-6A	08/27/2015		1.4000	4.2267
Cobalt, total	ug/L	MW-6A	03/03/2016	ND	0.8000	4.2267
Cobalt, total	ug/L	MW-6A	09/21/2016		1.2000	4.2267
Cobalt, total	ug/L	MW-6A	03/09/2017	ND	0.8000	4.2267
Cobalt, total	ug/L	MW-6A	09/14/2017		5.4000 *	4.2267
Cobalt, total	ug/L	MW-6A	12/13/2017		1.4000	4.2267
Cobalt, total	ug/L	MW-6A	03/12/2018	ND	2.0000	4.2267
Cobalt, total	ug/L	MW-6A	09/10/2018		2.2000	4.2267
Cobalt, total	ug/L	MW-6A	03/26/2019	ND	0.8000	4.2267
Cobalt, total	ug/L	MW-6A	09/16/2019		1.3000	4.2267
Cobalt, total	ug/L	MW-6A	03/24/2020	ND	0.8000	4.2267
Cobalt, total	ug/L	MW-6A	09/02/2020		0.7000	4.2267
Cobalt, total	ug/L	MW-6A	03/08/2021		17.5000 *	4.2267
Cobalt, total	ug/L	MW-6A	09/14/2021		1.9000	4.2267

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

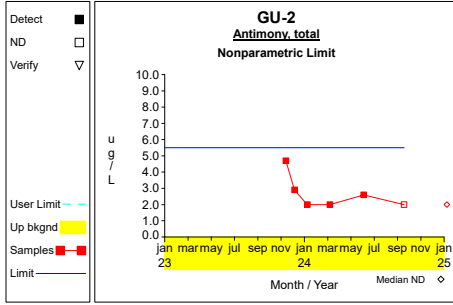
Table 8

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

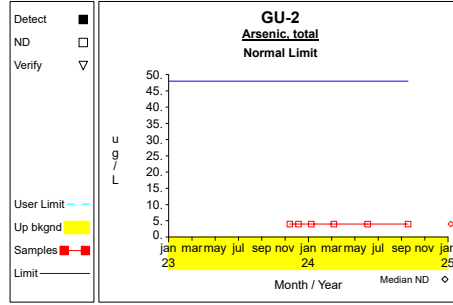
Constituent	Units	Well	Date		Result	Pred. Limit
Cobalt, total	ug/L	MW-6A	03/28/2022		0.4000	4.2267
Cobalt, total	ug/L	MW-6A	09/13/2022		2.8000	4.2267
Cobalt, total	ug/L	MW-6A	03/23/2023	ND	0.4000	4.2267
Cobalt, total	ug/L	MW-6A	09/18/2024		4.9000 *	4.2267
Barium, total	ug/L	TILE 1	06/05/2019		1010.0000 *	624.2924
Barium, total	ug/L	TILE 1	07/17/2019		1580.0000 *	624.2924
Barium, total	ug/L	TILE 1	09/16/2019		1350.0000 *	624.2924
Barium, total	ug/L	TILE 1	03/24/2020		754.0000 *	624.2924
Barium, total	ug/L	TILE 1	09/02/2020		2210.0000 *	624.2924
Barium, total	ug/L	TILE 1	03/08/2021		1060.0000 *	624.2924
Barium, total	ug/L	TILE 1	09/14/2021		1940.0000 *	624.2924
Barium, total	ug/L	TILE 1	03/28/2022		774.0000 *	624.2924
Barium, total	ug/L	TILE 1	09/13/2022		2660.0000 *	624.2924
Barium, total	ug/L	TILE 1	03/23/2023		953.0000 *	624.2924
Barium, total	ug/L	TILE 1	09/05/2023		2510.0000 *	624.2924
Barium, total	ug/L	TILE 1	03/06/2024		2250.0000 *	624.2924
Barium, total	ug/L	TILE 1	09/18/2024		2340.0000 *	624.2924
Nickel, total	ug/L	TILE 1	06/05/2019		13.4000	33.6000
Nickel, total	ug/L	TILE 1	09/16/2019		21.2000	33.6000
Nickel, total	ug/L	TILE 1	03/24/2020		9.8000	33.6000
Nickel, total	ug/L	TILE 1	09/02/2020		35.8000 *	33.6000
Nickel, total	ug/L	TILE 1	03/08/2021		20.8000	33.6000
Nickel, total	ug/L	TILE 1	09/14/2021		37.1000 *	33.6000
Nickel, total	ug/L	TILE 1	03/28/2022		14.0000	33.6000
Nickel, total	ug/L	TILE 1	09/13/2022		46.1000 *	33.6000
Nickel, total	ug/L	TILE 1	03/23/2023		13.4000	33.6000
Nickel, total	ug/L	TILE 1	09/05/2023		43.6000 *	33.6000
Nickel, total	ug/L	TILE 1	03/06/2024		43.5000 *	33.6000
Nickel, total	ug/L	TILE 1	09/18/2024		43.5000 *	33.6000
Barium, total	ug/L	TILE 2	06/05/2019		504.0000	624.2924
Barium, total	ug/L	TILE 2	09/16/2019		618.0000	624.2924
Barium, total	ug/L	TILE 2	03/24/2020		459.0000	624.2924
Barium, total	ug/L	TILE 2	09/02/2020		1060.0000 *	624.2924
Barium, total	ug/L	TILE 2	03/08/2021		500.0000	624.2924
Barium, total	ug/L	TILE 2	09/14/2021		568.0000	624.2924
Barium, total	ug/L	TILE 2	03/28/2022		504.0000	624.2924
Barium, total	ug/L	TILE 2	09/13/2022		860.0000 *	624.2924
Barium, total	ug/L	TILE 2	03/23/2023		481.0000	624.2924
Barium, total	ug/L	TILE 2	09/05/2023		590.0000	624.2924
Barium, total	ug/L	TILE 2	03/06/2024		528.0000	624.2924
Barium, total	ug/L	TILE 2	09/18/2024		638.0000 *	624.2924

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

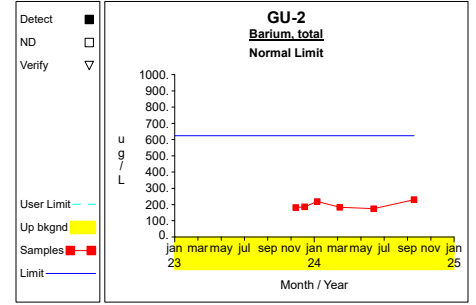
# Up vs. Down Prediction Limits



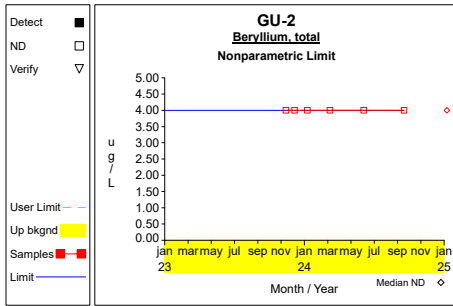
Graph 1



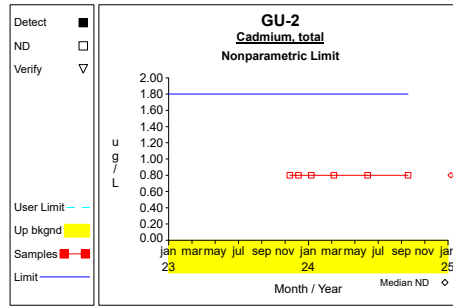
Graph 2



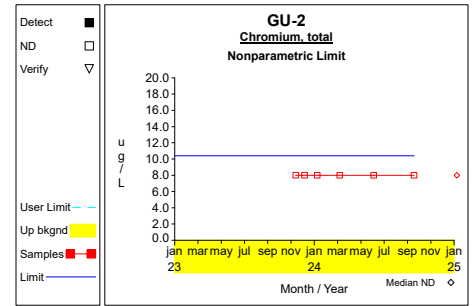
Graph 3



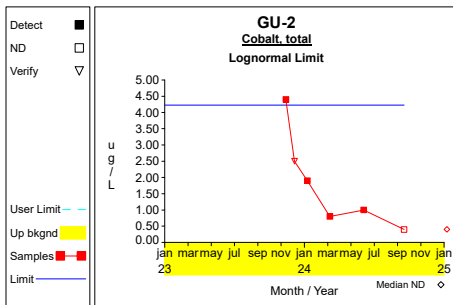
Graph 4



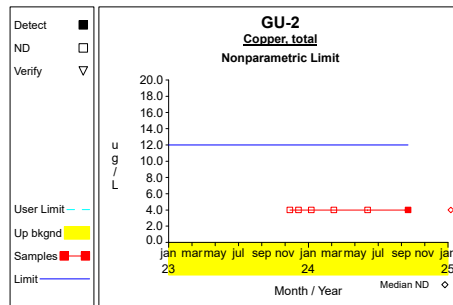
Graph 5



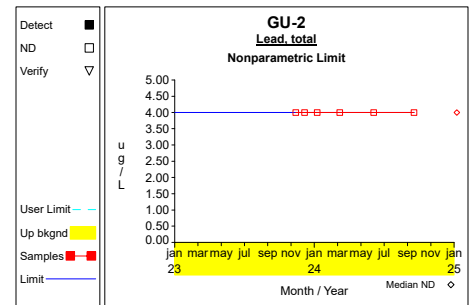
Graph 6



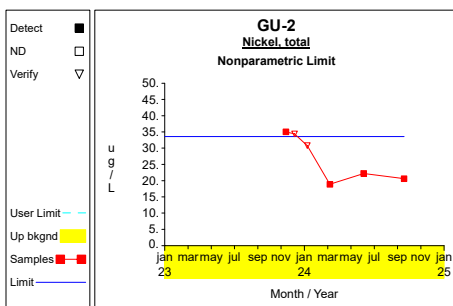
Graph 7



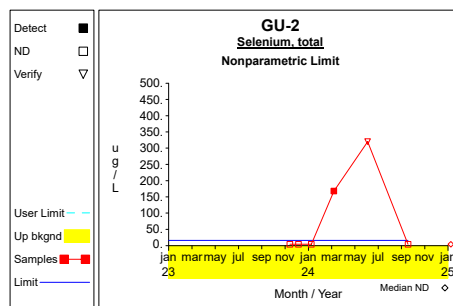
Graph 8



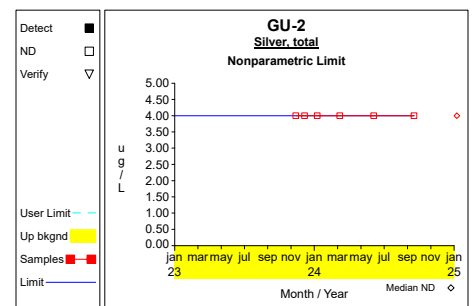
Graph 9



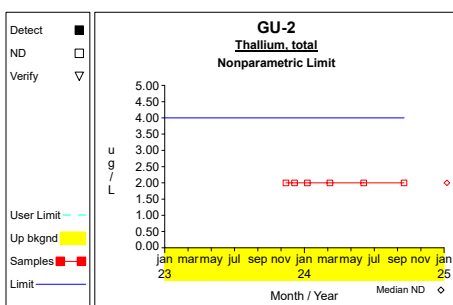
Graph 10



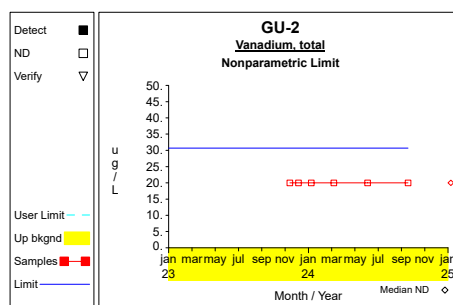
Graph 11



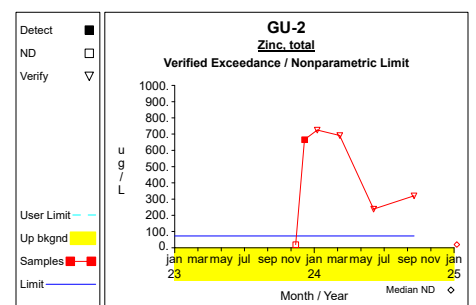
Graph 12



Graph 13

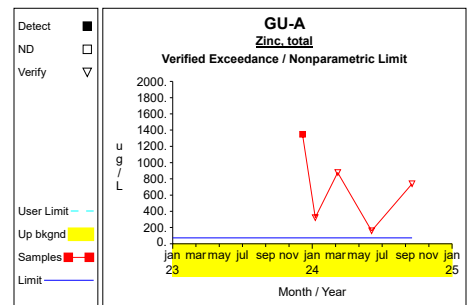
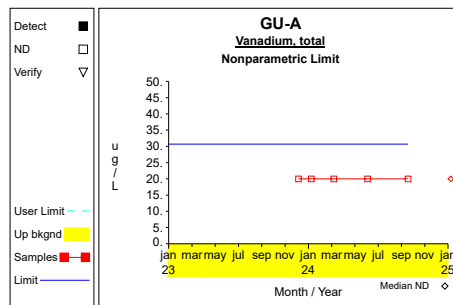
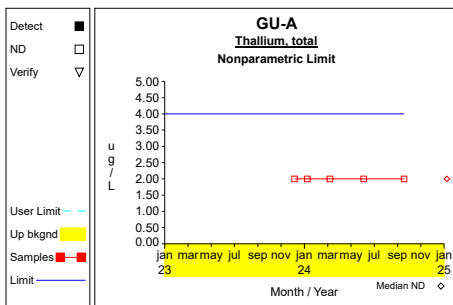
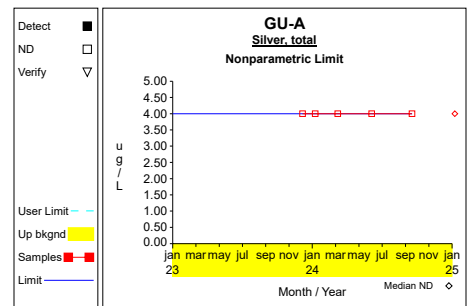
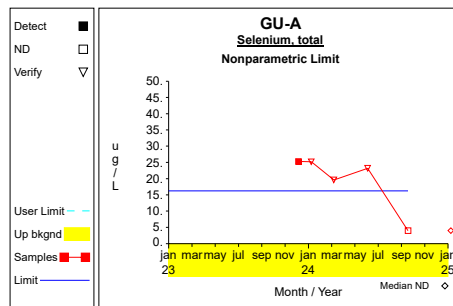
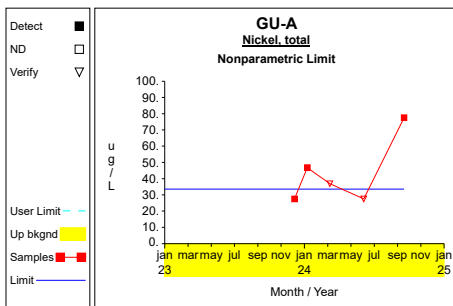
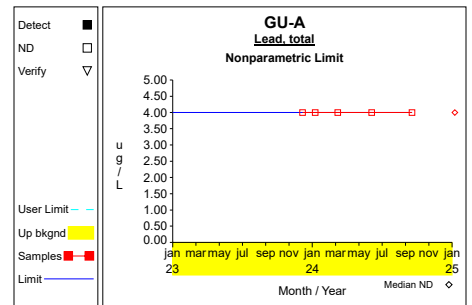
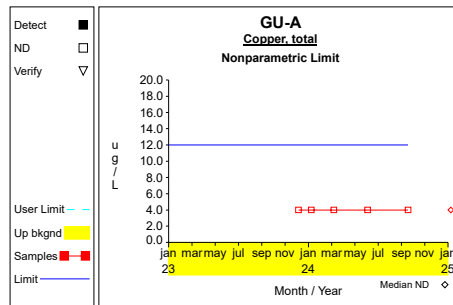
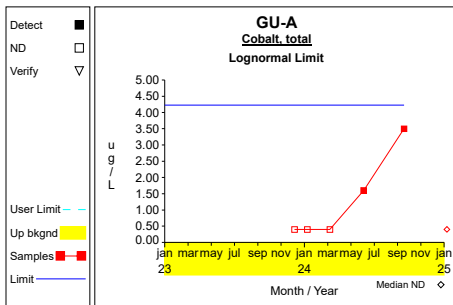
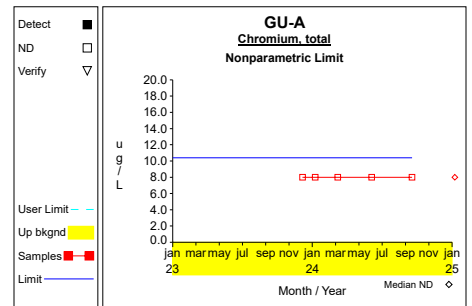
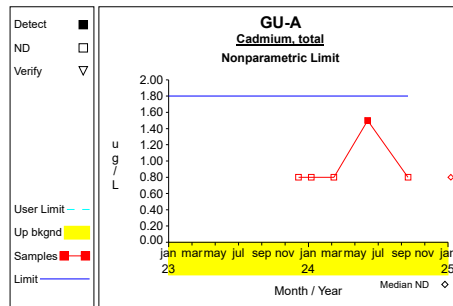
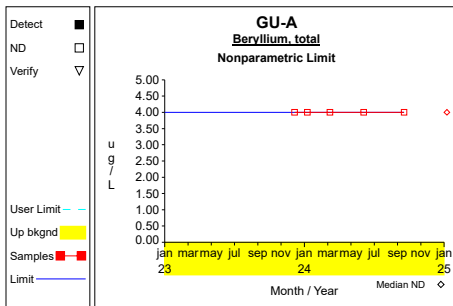
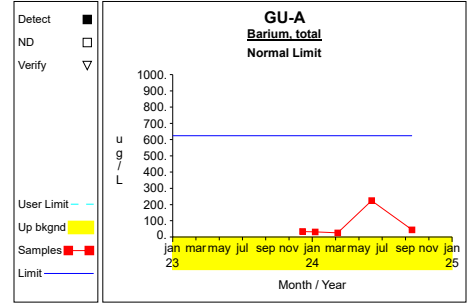
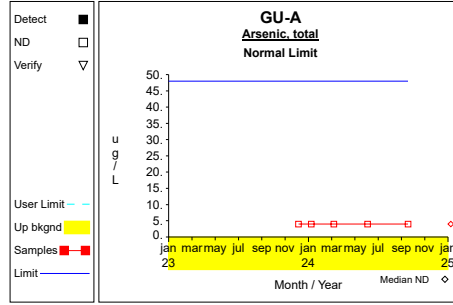
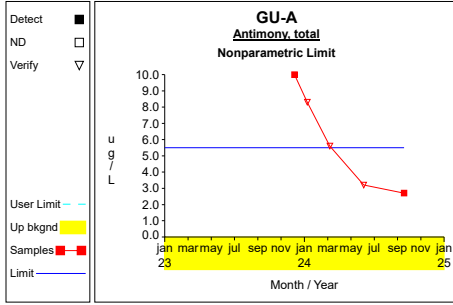


Graph 14

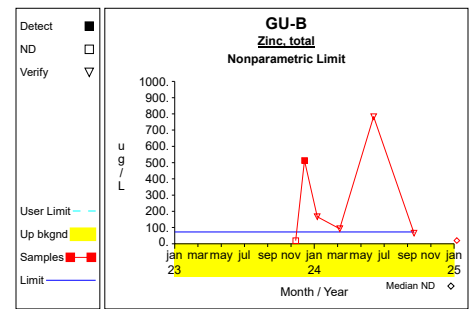
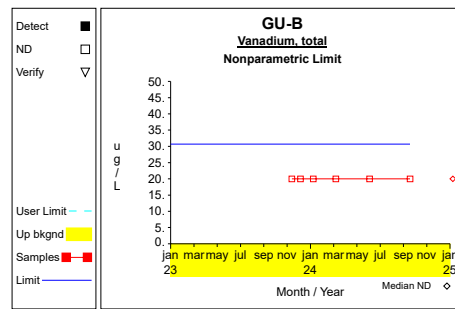
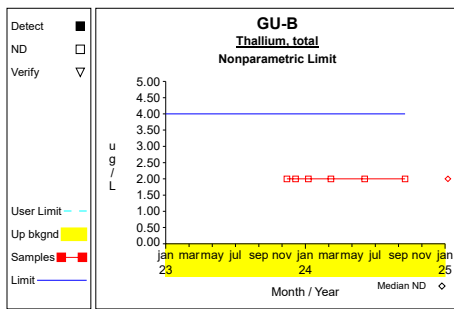
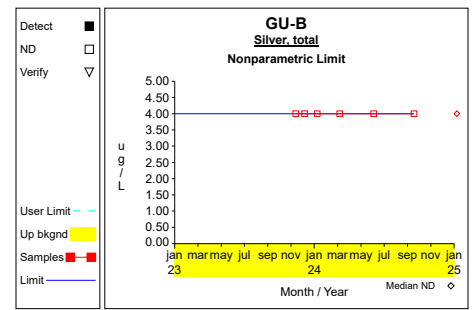
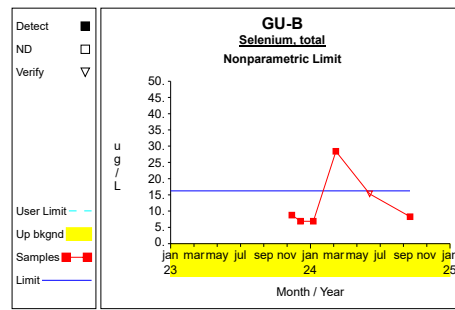
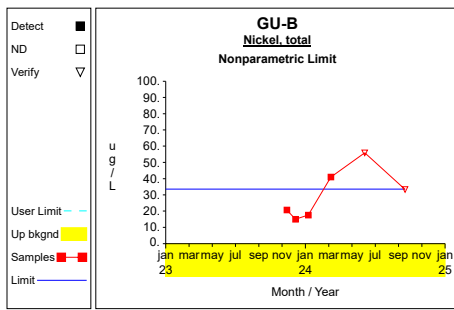
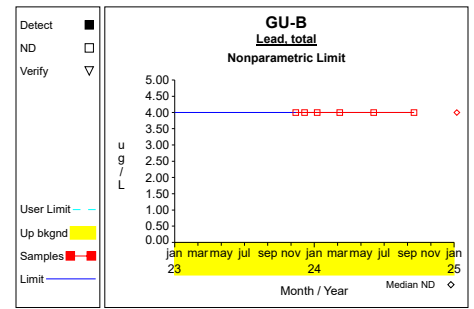
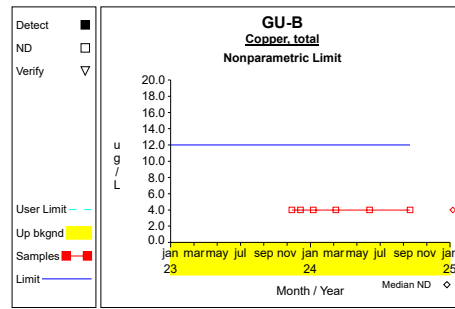
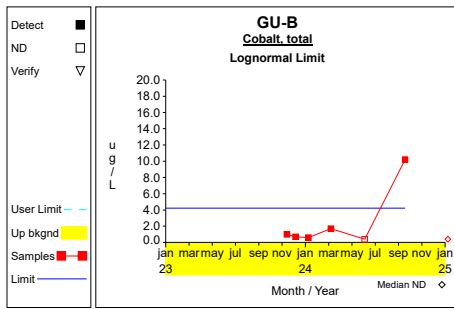
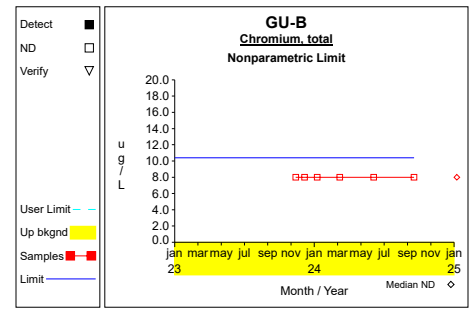
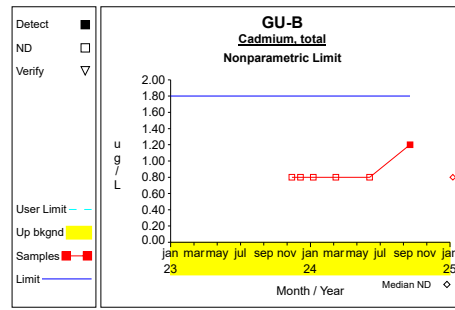
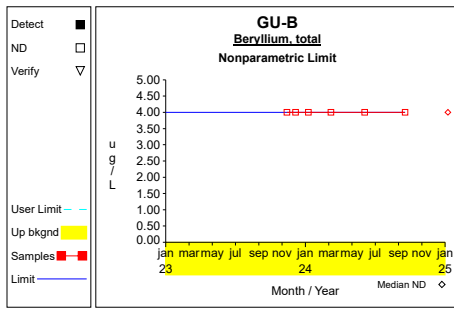
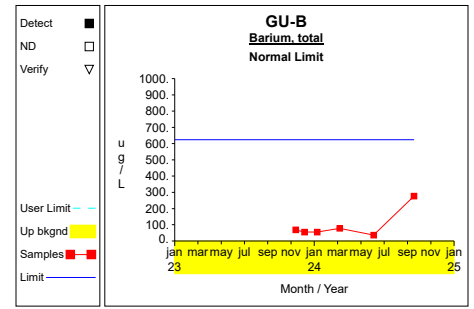
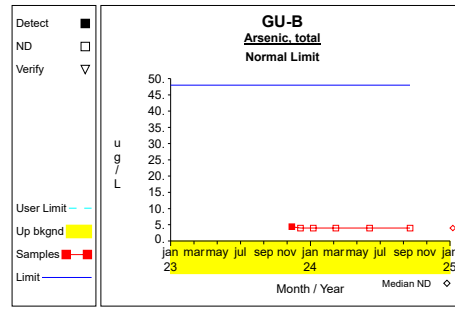
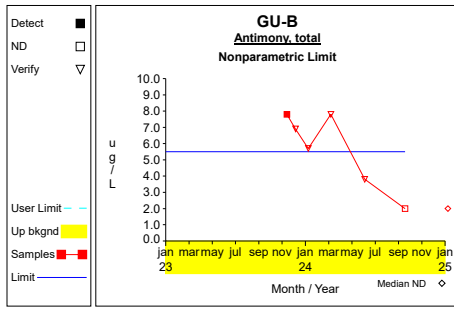


Graph 15

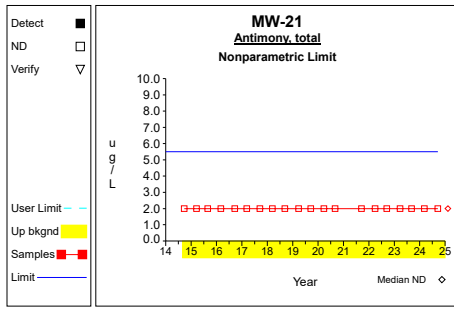
# Up vs. Down Prediction Limits



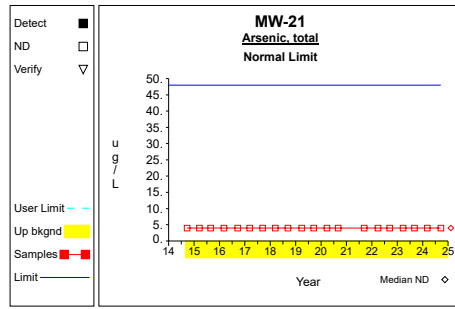
# Up vs. Down Prediction Limits



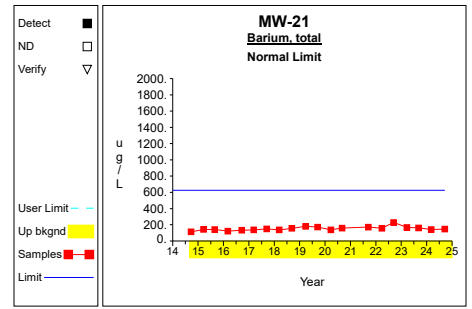
# Up vs. Down Prediction Limits



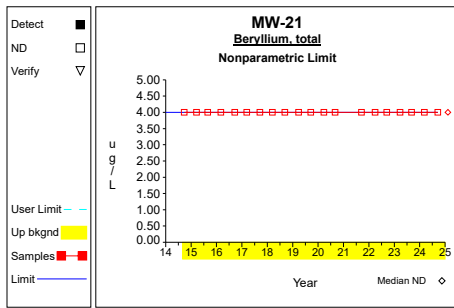
Graph 46



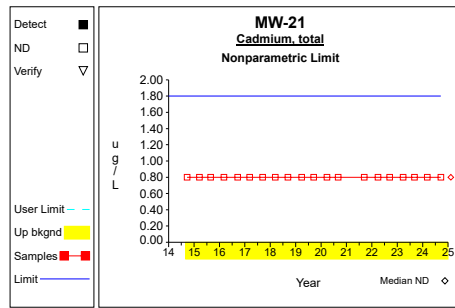
Graph 47



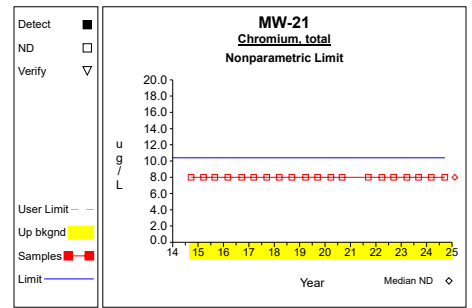
Graph 48



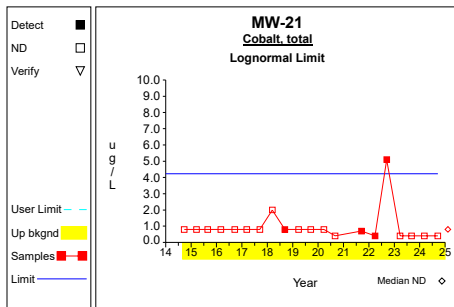
Graph 49



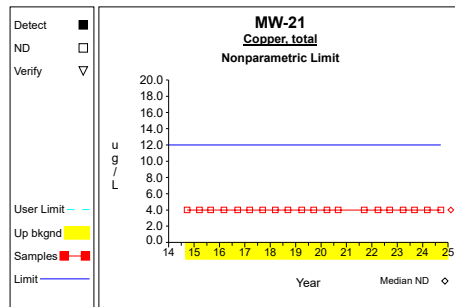
Graph 50



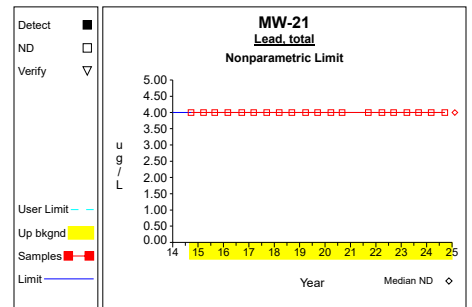
Graph 51



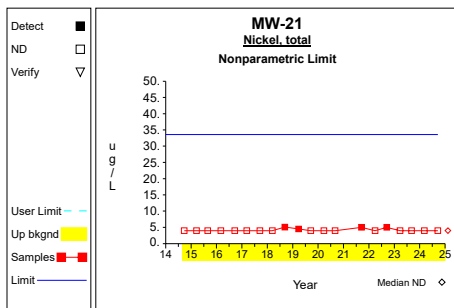
Graph 52



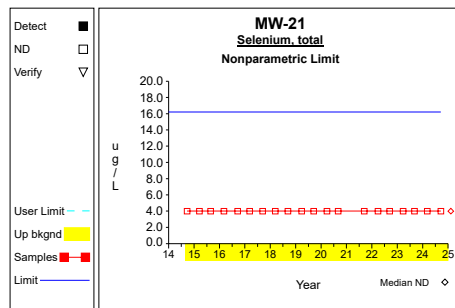
Graph 53



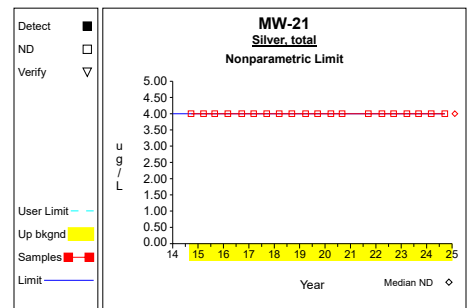
Graph 54



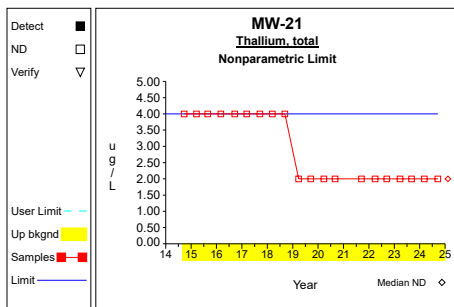
Graph 55



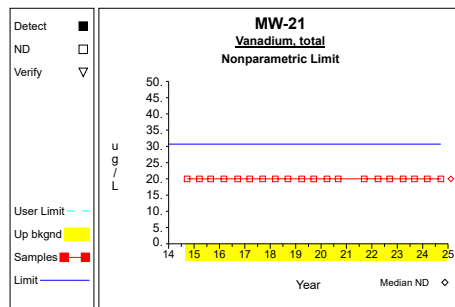
Graph 56



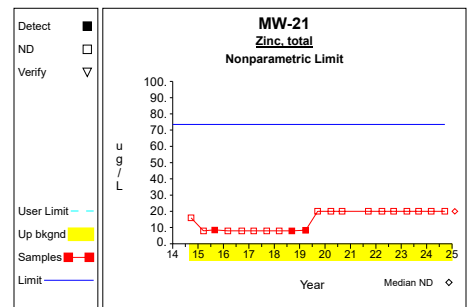
Graph 57



Graph 58

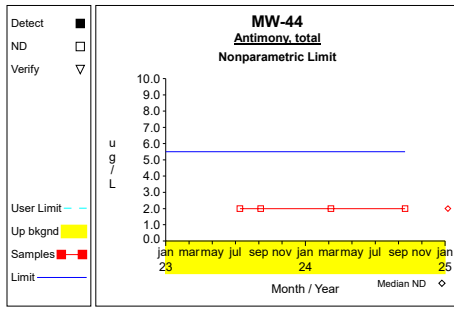


Graph 59

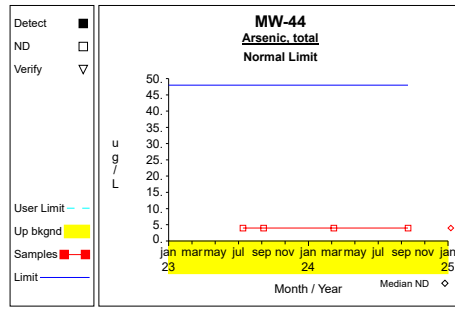


Graph 60

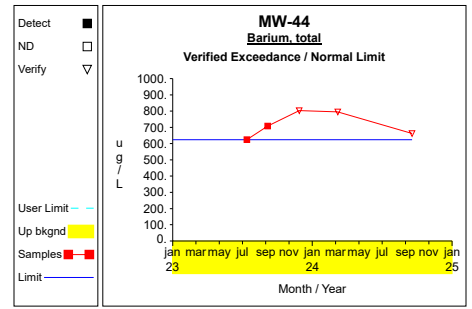
# Up vs. Down Prediction Limits



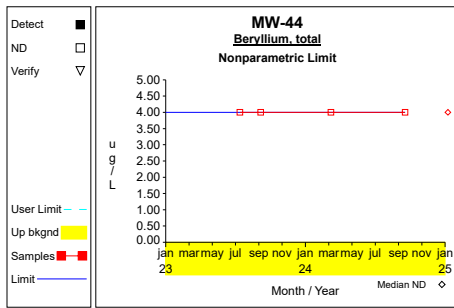
Graph 61



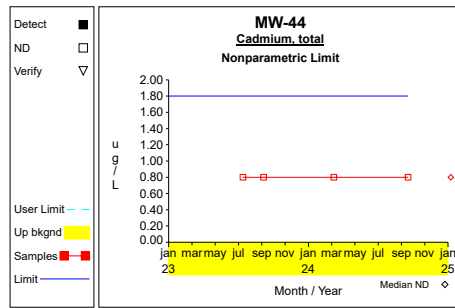
Graph 62



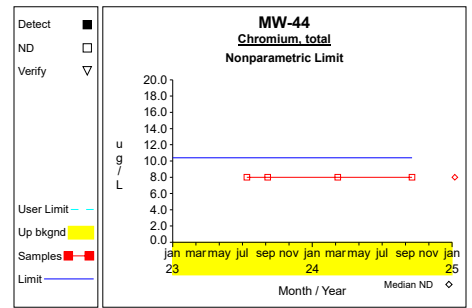
Graph 63



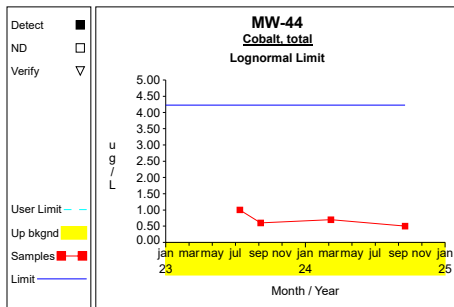
Graph 64



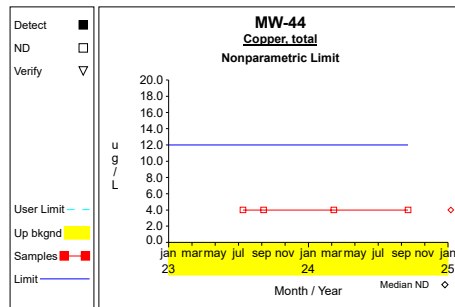
Graph 65



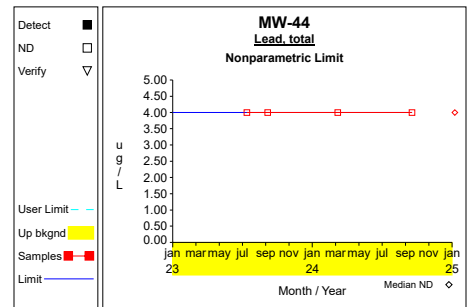
Graph 66



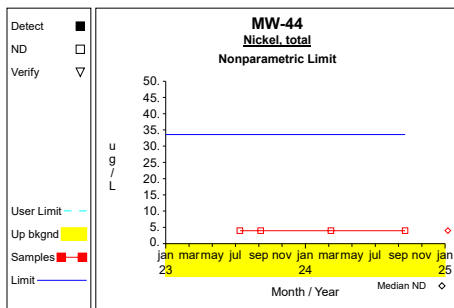
Graph 67



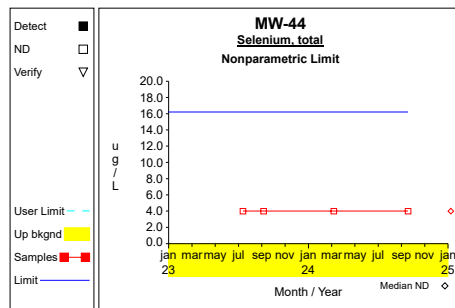
Graph 68



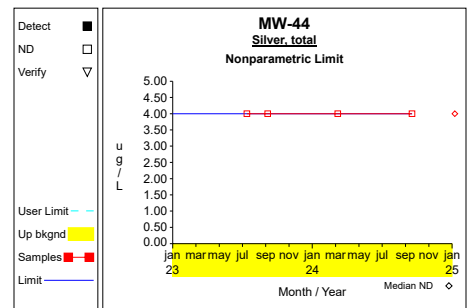
Graph 69



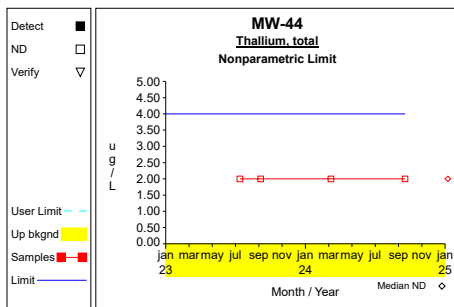
Graph 70



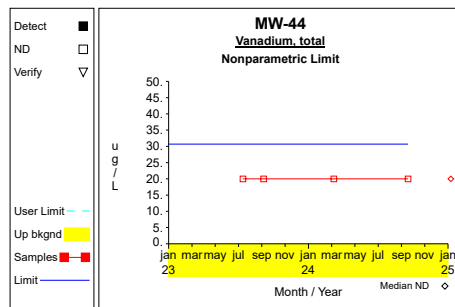
Graph 71



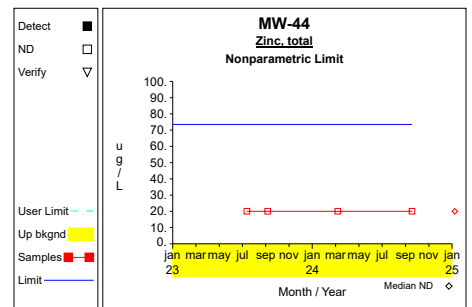
Graph 72



Graph 73



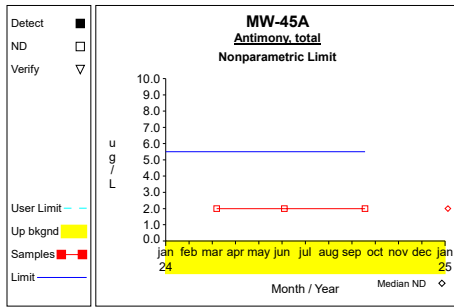
Graph 74



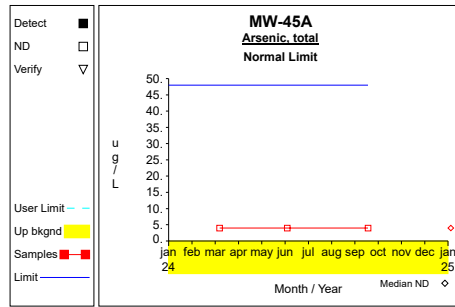
Graph 75



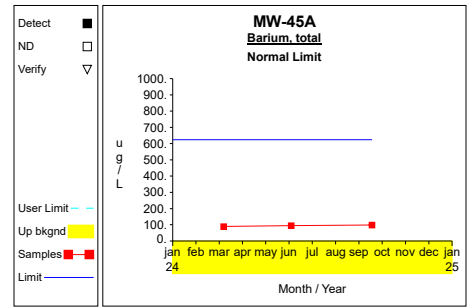
# Up vs. Down Prediction Limits



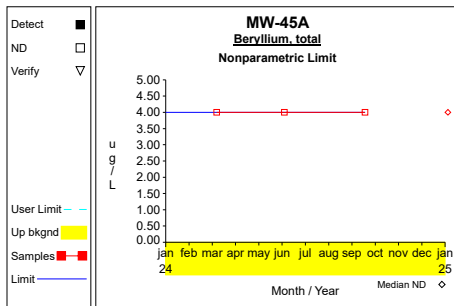
Graph 76



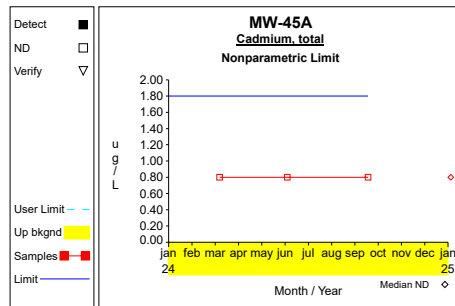
Graph 77



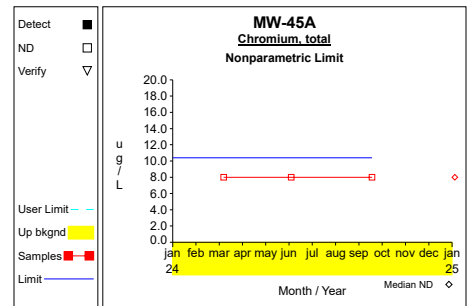
Graph 78



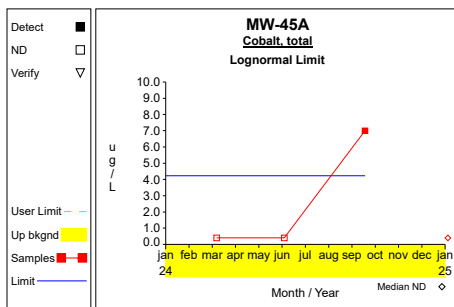
Graph 79



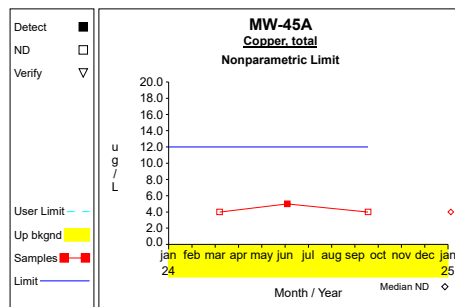
Graph 80



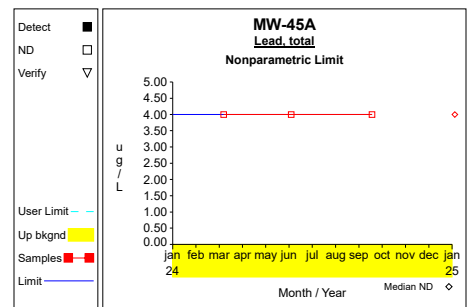
Graph 81



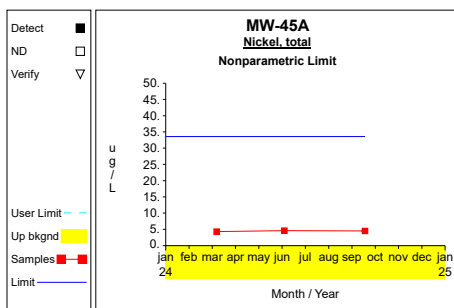
Graph 82



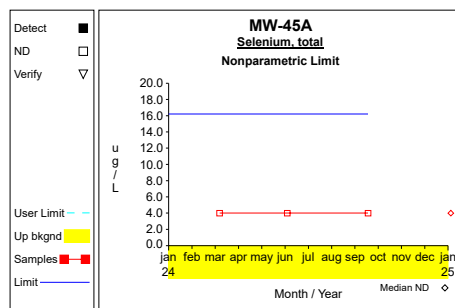
Graph 83



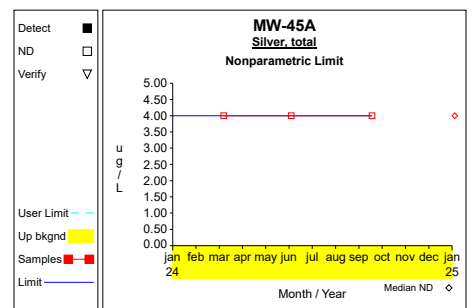
Graph 84



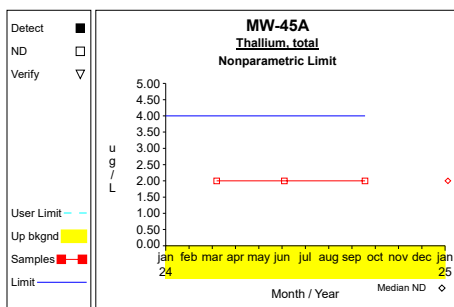
Graph 85



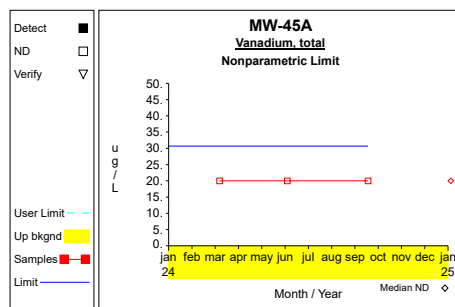
Graph 86



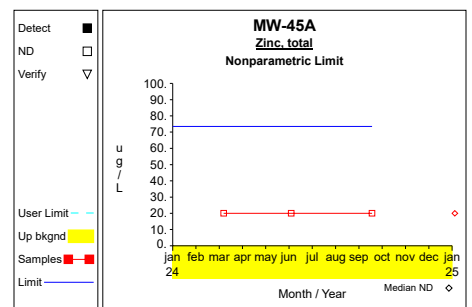
Graph 87



Graph 88

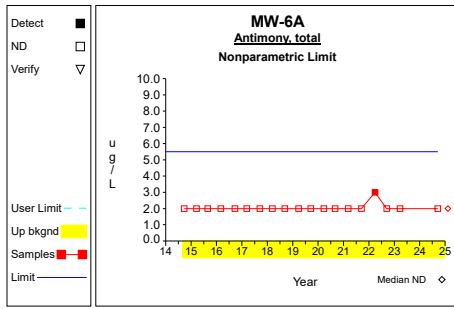


Graph 89

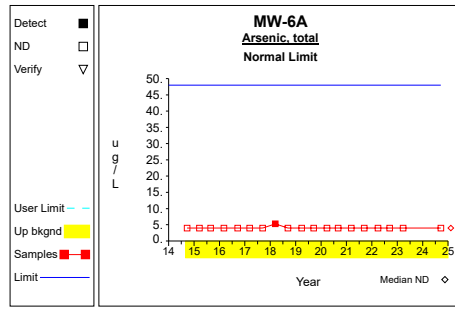


Graph 90

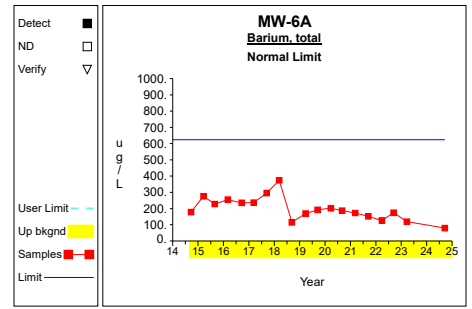
# Up vs. Down Prediction Limits



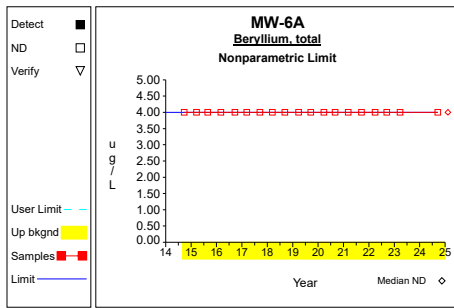
Graph 91



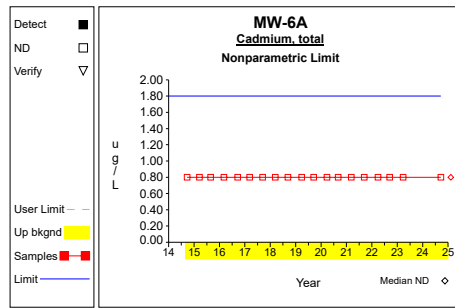
Graph 92



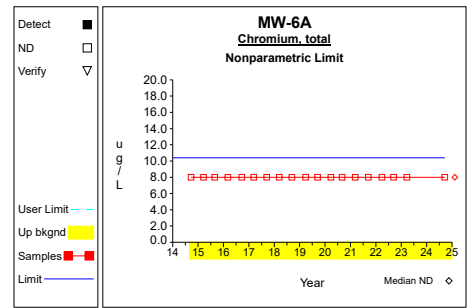
Graph 93



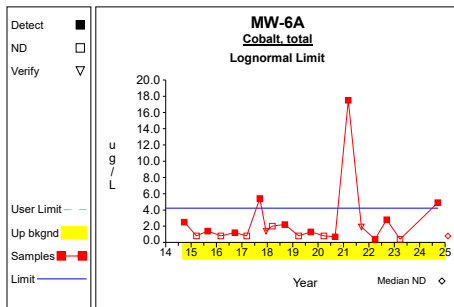
Graph 94



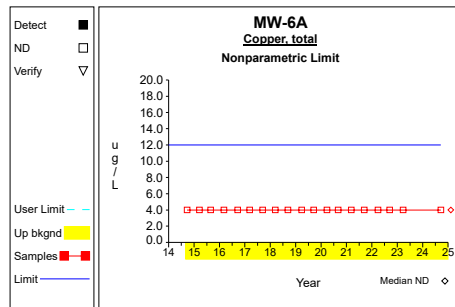
Graph 95



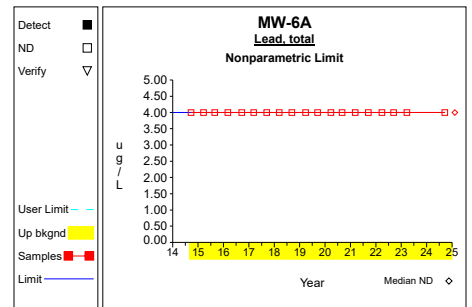
Graph 96



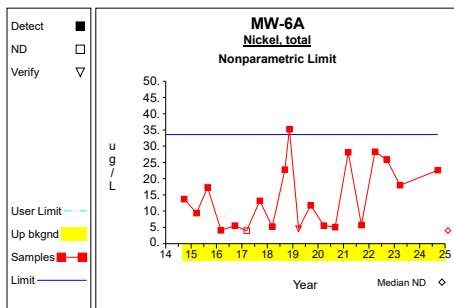
Graph 97



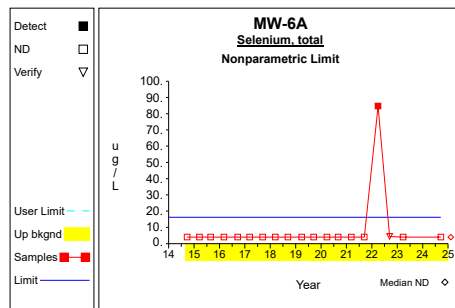
Graph 98



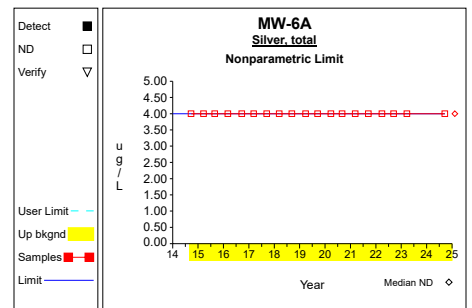
Graph 99



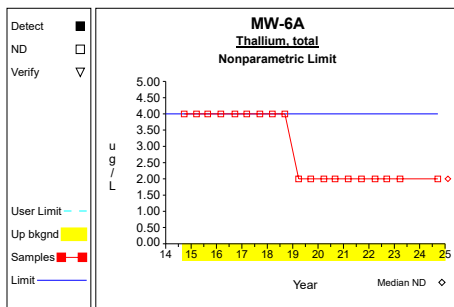
Graph 100



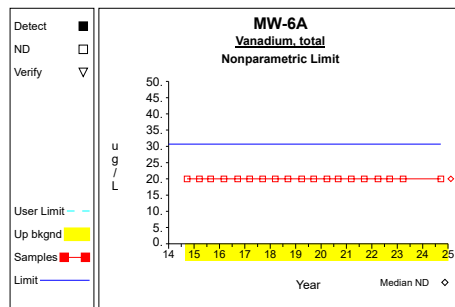
Graph 101



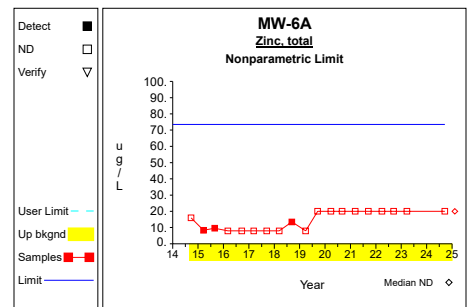
Graph 102



Graph 103

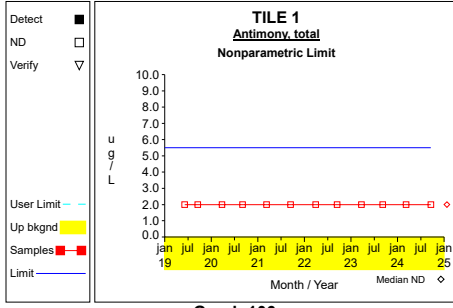


Graph 104

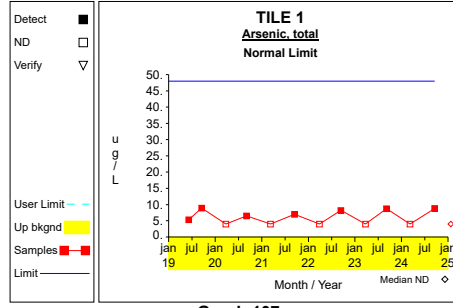


Graph 105

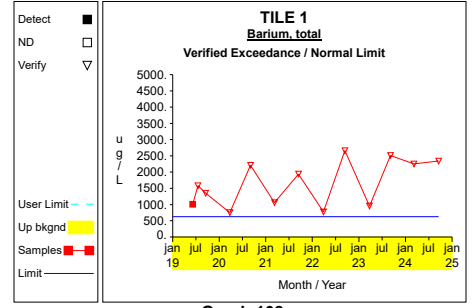
# Up vs. Down Prediction Limits



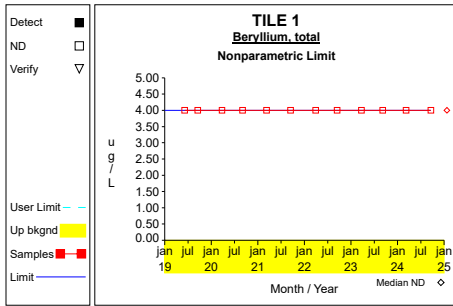
Graph 106



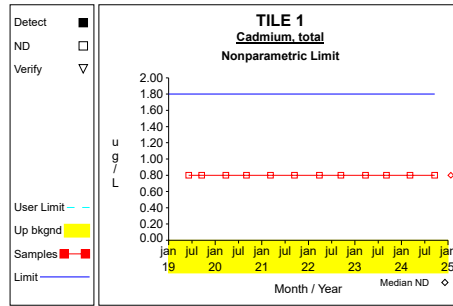
Graph 107



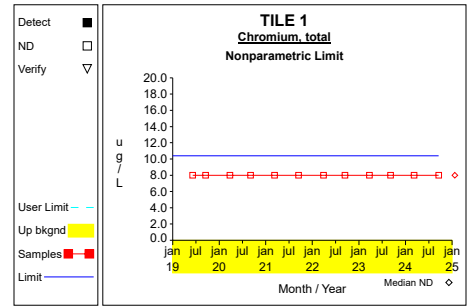
Graph 108



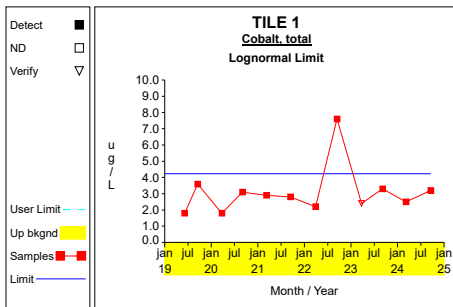
Graph 109



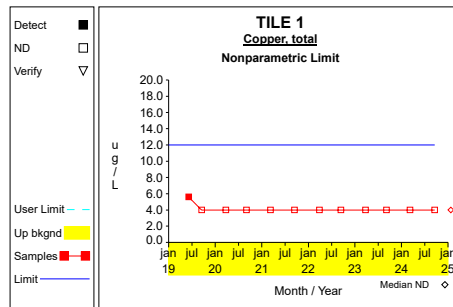
Graph 110



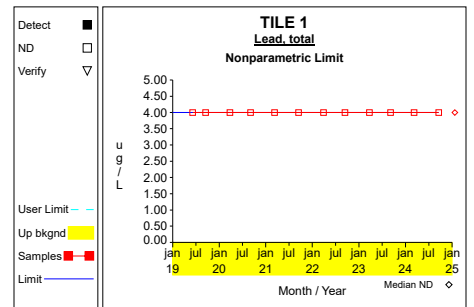
Graph 111



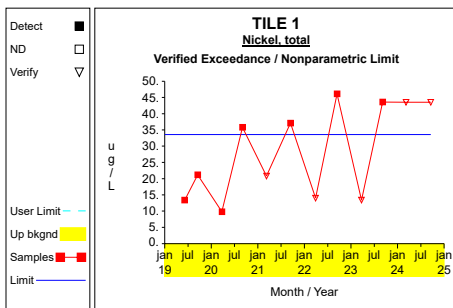
Graph 112



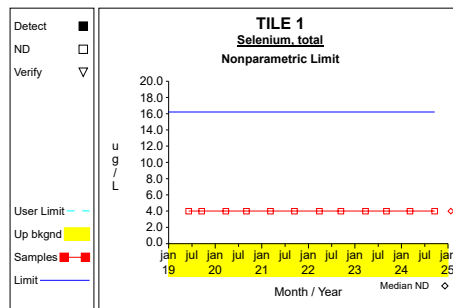
Graph 113



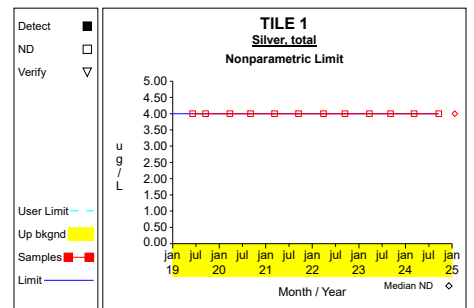
Graph 114



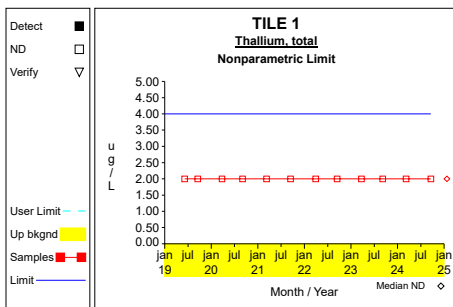
Graph 115



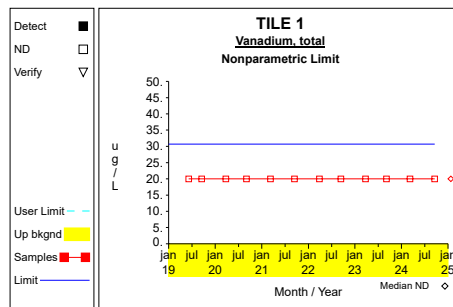
Graph 116



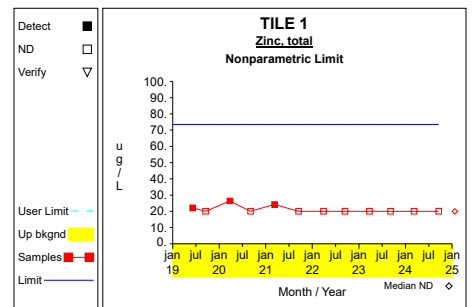
Graph 117



Graph 118

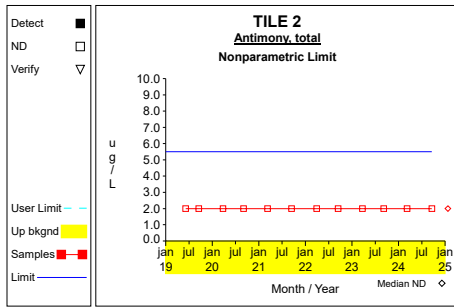


Graph 119

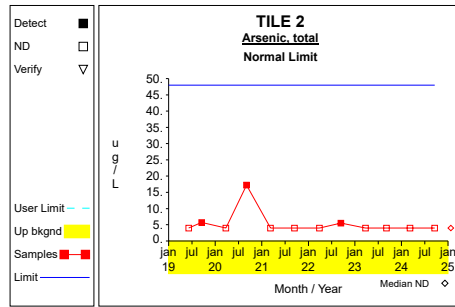


Graph 120

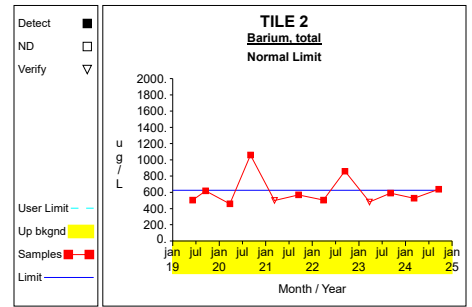
# Up vs. Down Prediction Limits



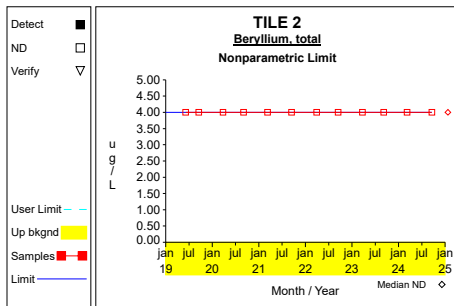
Graph 121



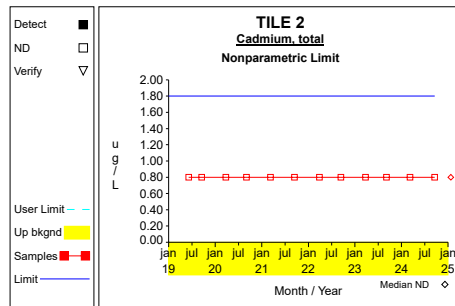
Graph 122



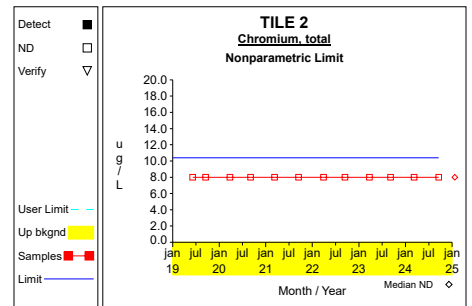
Graph 123



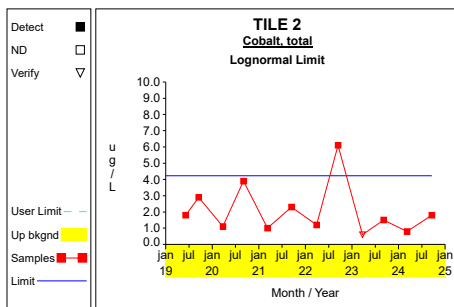
Graph 124



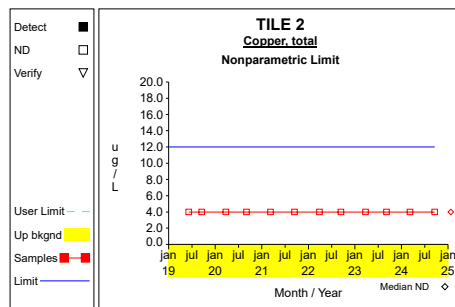
Graph 125



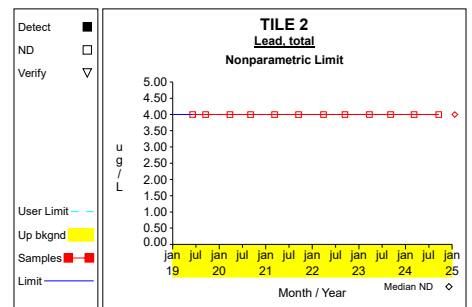
Graph 126



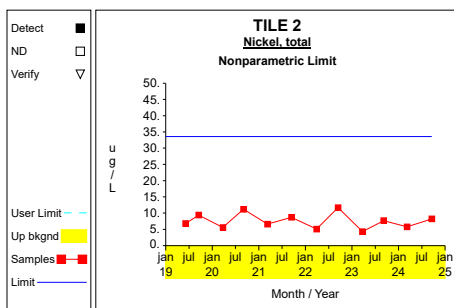
Graph 127



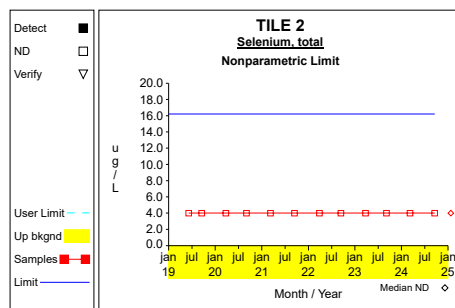
Graph 128



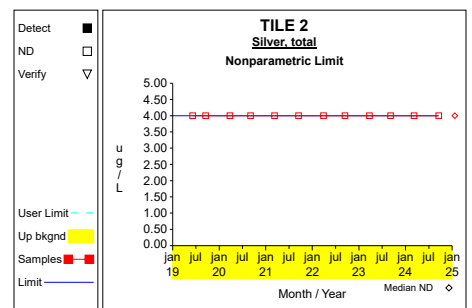
Graph 129



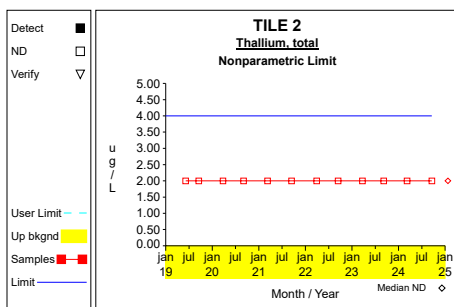
Graph 130



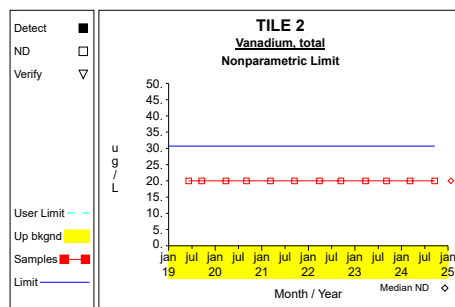
Graph 131



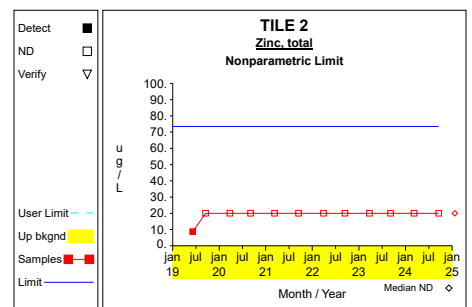
Graph 132



Graph 133

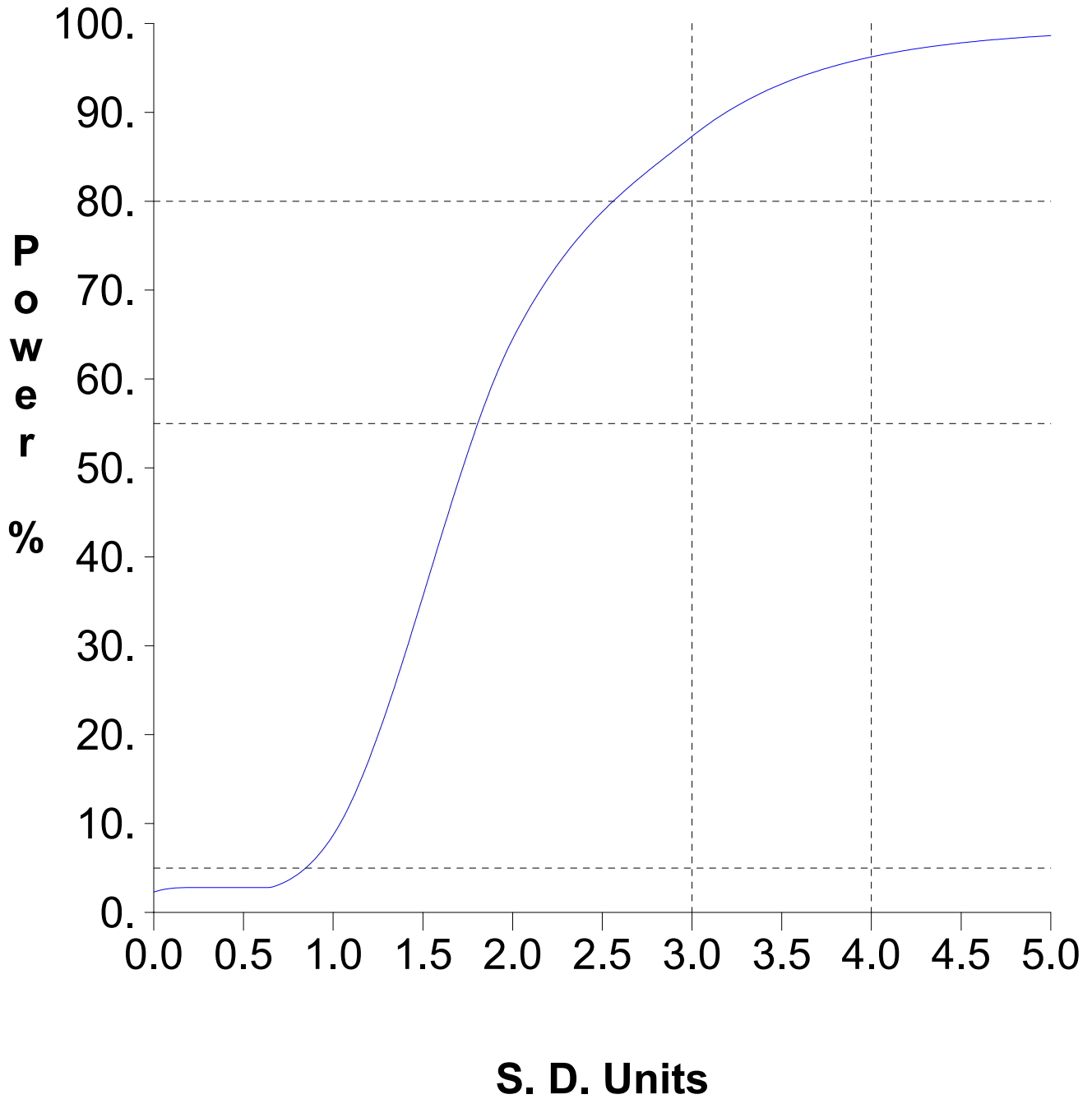


Graph 134



Graph 135

# 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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 5.5	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.989	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

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

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	$\bar{X}_1 = \text{sum}[X_1] / N_1$ = 486.9 / 22 = 22.132	Compute mean of $N_1$ detected measurements.
2	$S_1 = ((\text{sum}[X_1^2] - \text{sum}[X_1]^2 / N_1) / (N_1 - 1))^{1/2}$ = ((13932.33 - 237071.61/22) / (22-1)) <sup>1/2</sup> = 12.26	Compute sd of $N_1$ detected measurements.
3	$\bar{X} = (1 - N_0/N) \bar{X}_1$ = (1 - 17/39) 22.132 = 12.485	Use Aitchison's method to adjust mean for presence of nondetects.
4	$S = [(1 - N_0/N) * S_1^2 + (N_0/N) (1 - (N_0 - 1)/(N - 1)) \bar{X}_1^2]^{1/2}$ = [(1 - 17/39) * 12.26 <sup>2</sup> + (17/39) (1 - (17-1)/(39-1)) 22.132 <sup>2</sup> ] <sup>1/2</sup> = 14.436	Use Aitchison's method to adjust sd for presence of nondetects.
5	alpha = min[ (1 - .95 <sup>1/K</sup> ) <sup>1/2</sup> , .01 ] = min[ (1 - .95 <sup>1/135</sup> ) <sup>1/2</sup> , .01 ] = 0.01	Adjusted per comparison false positive rate. Pass initial or 1 resample.
6	PL = $\bar{X} + tS(1+1/N)^{1/2}$ = 12.485 + (2.428*14.436)(1+1/39) <sup>1/2</sup> = 47.988	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**  
**Barium, total (ug/L)**  
**Normal Prediction Limit**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	$\bar{X} = \text{sum}[X] / N$ $= 15539.0 / 39$ $= 398.436$	Compute upgradient mean.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((6.51 \times 10^6 - 2.41 \times 10^8/39) / (39-1))^{1/2}$ $= 91.835$	Compute upgradient sd.
3	$\alpha = \min[(1-95^{1/K})^{1/2}, .01]$ $= \min[(1-95^{1/135})^{1/2}, .01]$ $= 0.01$	Adjusted per comparison false positive rate. Pass initial or 1 resample.
4	$PL = \bar{X} + tS(1+1/N)^{1/2}$ $= 398.436$ $+ (2.428 * 91.835)(1+1/39)^{1/2}$ $= 624.292$	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	$PL = \text{median}(X)$ $= 4.0$	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = <b>0.989</b>	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	$PL = \text{max}(X)$ $= 1.8$	Compute nonparametric prediction limit as largest background measurement.
2	Conf = <b>0.988</b>	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

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

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	PL = max(X) = 10.4	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.989	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

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

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$Y = \log_e(X)$	Transform to natural logarithmic scale.
2	$\bar{Y}_1 = \text{sum}[Y_1] / N_1$ = 9.292 / 20 = 0.465	Compute mean of $N_1$ detected log transformed measurements.
3	$S_{Y_1} = ((\text{sum}[Y_1^2] - \text{sum}[Y_1]^2 / N_1) / (N_1 - 1))^{1/2}$ = ((11.134 - 86.333/20) / (20-1)) <sup>1/2</sup> = 0.599	Compute sd of $N_1$ detected log transformed measurements.
4	$\bar{Y} = (1 - N_0/N) \bar{Y}_1$ = (1 - 19/39) 0.465 = 0.238	Use Aitchison's method to adjust mean for presence of nondetects (log scale).
5	$S_Y = [(1 - N_0/N) * S_{Y_1}^2 + (N_0/N) (1 - (N_0 - 1)/(N - 1)) \bar{Y}_1^2]^{1/2}$ = [(1 - 19/39) * 0.599 <sup>2</sup> + (19/39) (1 - (19-1)/(39-1)) 0.465 <sup>2</sup> ] <sup>1/2</sup> = 0.489	Use Aitchison's method to adjust sd for presence of nondetects (log scale).
6	alpha = min[ (1 - .95 <sup>1/K</sup> ) <sup>1/2</sup> , .01 ] = min[ (1 - .95 <sup>1/135</sup> ) <sup>1/2</sup> , .01 ] = 0.01	Adjusted per comparison false positive rate. Pass initial or 1 resample.
7	PL = exp[ $\bar{Y} + t S_Y (1 + 1/N)^{1/2}$ ] = exp[0.238 + (2.428 * 0.489) (1 + 1/39) <sup>1/2</sup> ] = 4.227	One-sided lognormal prediction limit (t is Student's t on N-1 degrees of freedom and 1-alpha confidence level).



**Worksheet 1 - Upgradient vs. Downgradient Comparisons**

**Copper, total (ug/L)**

**Nonparametric Prediction Limit**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 12.0	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.989	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = median(X) = 4.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.989	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 33.6	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.989	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 16.2	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.989	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = median(X) = 4.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.989	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = median(X) = 4.0	Compute nonparametric prediction limit as median reporting limit in background.
2	Conf = 0.989	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 30.7	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.989	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**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 73.5	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.989	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

**Attachment C**

Assessment Statistics for Verified Trace Metals  
Shallow Ground Water

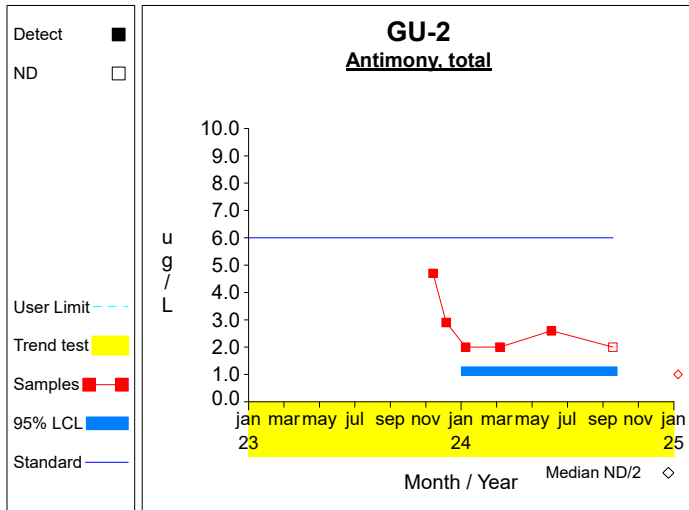
Table 1

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

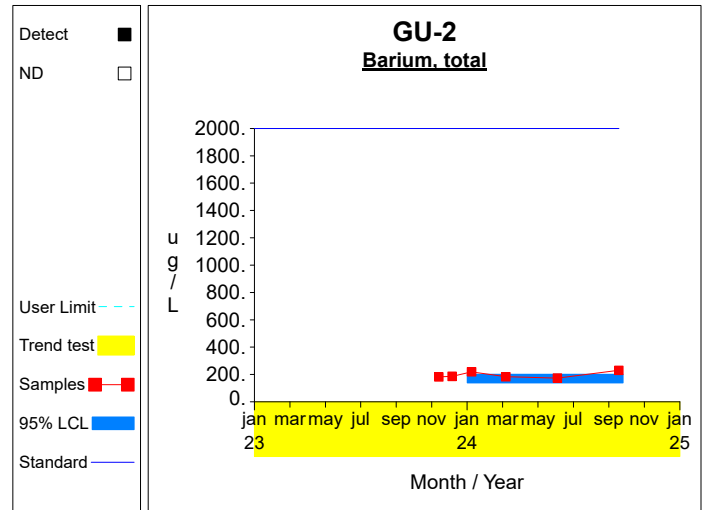
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend	
Antimony, total	ug/L	GU-2	4	1.900	0.663	1.176	1.120	2.680	6.000	dec	
Barium, total	ug/L	GU-2	4	201.500	27.185	1.176	169.523	233.477	2000.000		
Cobalt, total	ug/L	GU-2	4	0.975	0.704	1.176	0.147	1.803	2.100		
Nickel, total	ug/L	GU-2	4	23.125	5.291	1.176	16.901	29.349	100.000		
Selenium, total	ug/L	GU-2	4	123.000	152.879	1.176	0.000	302.830	50.000		
Zinc, total	ug/L	GU-2	4	493.500	250.320	1.176	199.051	787.949	2000.000		
Antimony, total	ug/L	GU-A	4	4.950	2.567	1.176	1.930	7.970	6.000	dec	
Barium, total	ug/L	GU-A	4	81.450	95.369	1.176	0.000	193.631	2000.000		
Cobalt, total	ug/L	GU-A	4	1.375	1.563	1.176	0.000	3.213	2.100		
Nickel, total	ug/L	GU-A	4	47.175	21.698	1.176	21.652	72.698	100.000		
Selenium, total	ug/L	GU-A	4	17.500	10.590	1.176	5.043	29.957	50.000		
Zinc, total	ug/L	GU-A	4	524.750	338.491	1.176	126.587	922.913	2000.000		
Antimony, total	ug/L	GU-B	4	4.575	2.889	1.176	1.176	7.974	6.000		
Barium, total	ug/L	GU-B	4	111.625	111.541	1.176	0.000	242.830	2000.000		
Cobalt, total	ug/L	GU-B	4	3.175	4.726	1.176	0.000	8.734	2.100		
Nickel, total	ug/L	GU-B	4	36.950	15.950	1.176	18.188	55.712	100.000		
Selenium, total	ug/L	GU-B	4	14.725	9.829	1.176	3.163	26.287	50.000		
Zinc, total	ug/L	GU-B	4	277.100	339.989	1.176	0.000	677.025	2000.000		
Antimony, total	ug/L	MW-44	4	1.000	0.000	1.176	1.000	1.000	6.000		
Barium, total	ug/L	MW-44	4	742.000	68.523	1.176	661.398	822.602	2000.000		
Cobalt, total	ug/L	MW-44	4	0.700	0.216	1.176	0.446	0.954	2.100		
Nickel, total	ug/L	MW-44	4	2.000	0.000	1.176	2.000	2.000	100.000		
Selenium, total	ug/L	MW-44	4	2.000	0.000	1.176	2.000	2.000	50.000		
Zinc, total	ug/L	MW-44	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Antimony, total	ug/L	MW-45A	3								* * * * *
Barium, total	ug/L	MW-45A	3								
Cobalt, total	ug/L	MW-45A	3								
Nickel, total	ug/L	MW-45A	3								
Selenium, total	ug/L	MW-45A	3								
Zinc, total	ug/L	MW-45A	3								
Antimony, total	ug/L	MW-6A	4	1.500	1.000	1.176	0.324	2.676	6.000	dec	
Barium, total	ug/L	MW-6A	4	125.050	38.506	1.176	79.756	170.344	2000.000		
Cobalt, total	ug/L	MW-6A	4	2.125	2.169	1.176	0.000	4.676	2.100		
Nickel, total	ug/L	MW-6A	4	23.700	4.461	1.176	18.453	28.947	100.000		
Selenium, total	ug/L	MW-6A	4	23.275	40.966	1.176	0.000	71.462	50.000		
Zinc, total	ug/L	MW-6A	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Antimony, total	ug/L	TILE 1	4	1.000	0.000	1.176	1.000	1.000	6.000		**
Barium, total	ug/L	TILE 1	4	2013.250	715.007	1.176	1172.195	2854.305	2000.000		
Cobalt, total	ug/L	TILE 1	4	2.850	0.465	1.176	2.302	3.398	2.100		
Nickel, total	ug/L	TILE 1	4	36.000	15.067	1.176	18.277	53.723	100.000		
Selenium, total	ug/L	TILE 1	4	2.000	0.000	1.176	2.000	2.000	50.000		
Zinc, total	ug/L	TILE 1	4	10.000	0.000	1.176	10.000	10.000	2000.000		
Antimony, total	ug/L	TILE 2	4	1.000	0.000	1.176	1.000	1.000	6.000		
Barium, total	ug/L	TILE 2	4	559.250	68.912	1.176	478.189	640.311	2000.000		
Cobalt, total	ug/L	TILE 2	4	1.175	0.568	1.176	0.507	1.843	2.100		
Nickel, total	ug/L	TILE 2	4	6.500	1.794	1.176	4.389	8.611	100.000		
Selenium, total	ug/L	TILE 2	4	2.000	0.000	1.176	2.000	2.000	50.000		
Zinc, total	ug/L	TILE 2	4	10.000	0.000	1.176	10.000	10.000	2000.000		

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

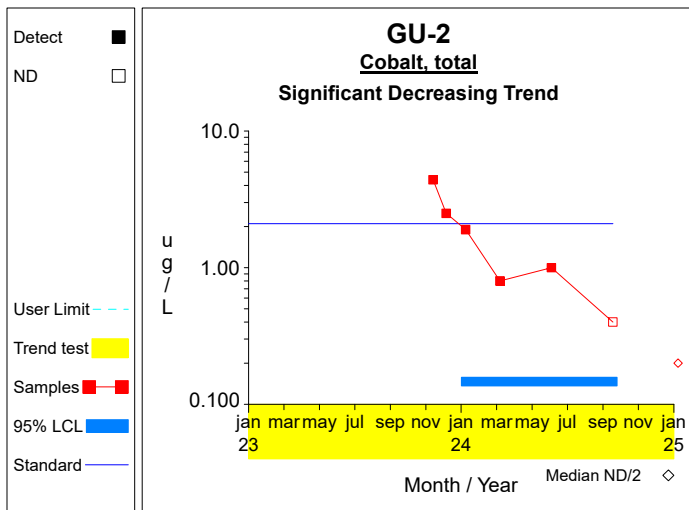
## Confidence Limits (Assessment)



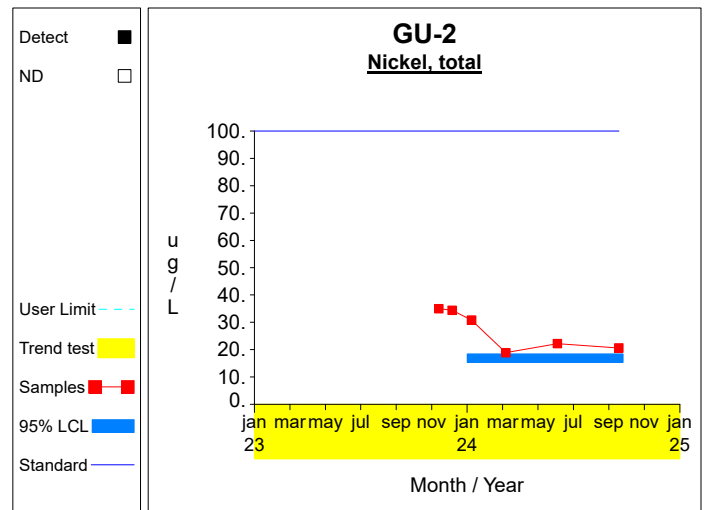
**Graph 1**



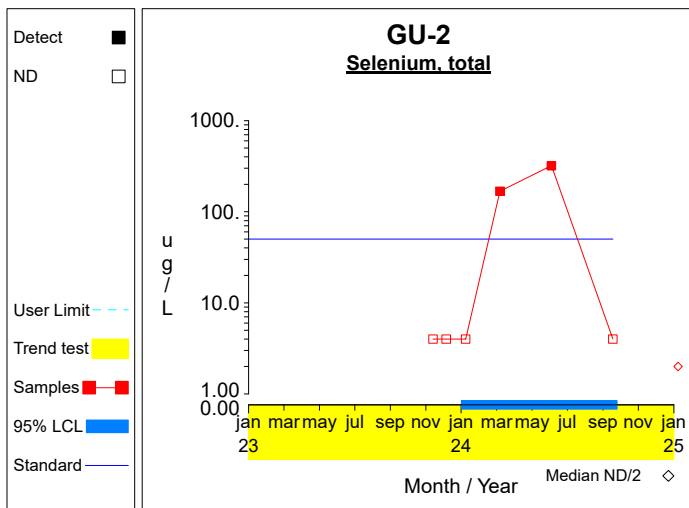
**Graph 2**



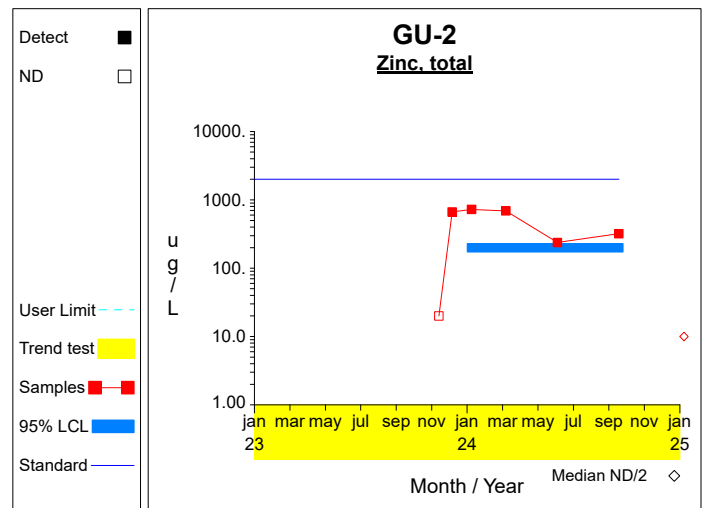
**Graph 3**



**Graph 4**

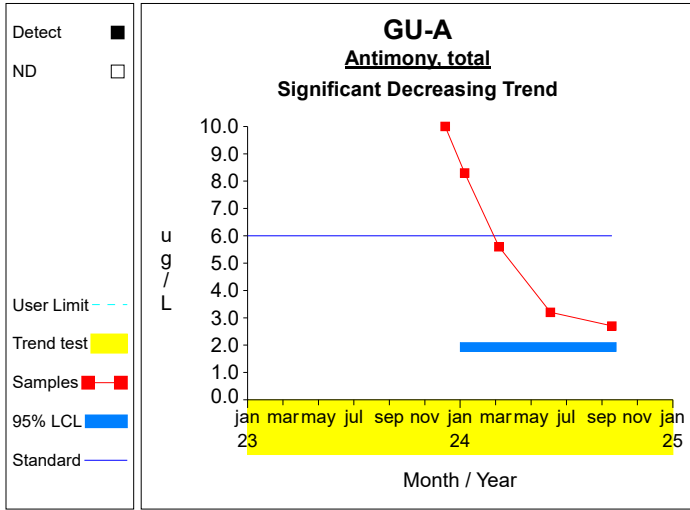


**Graph 5**

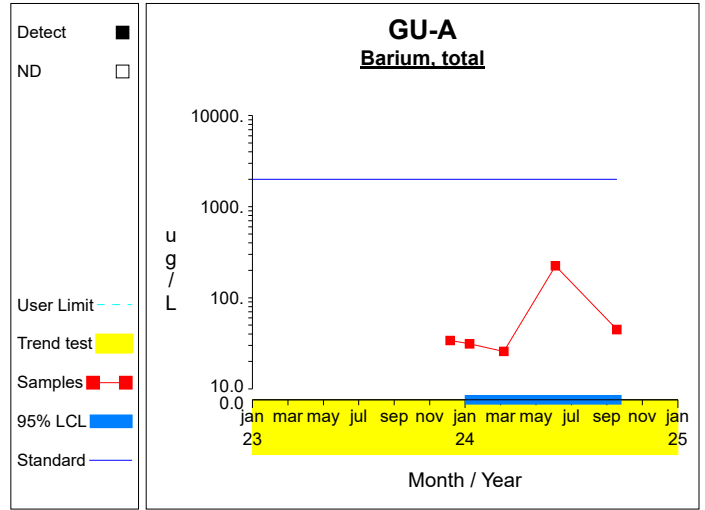


**Graph 6**

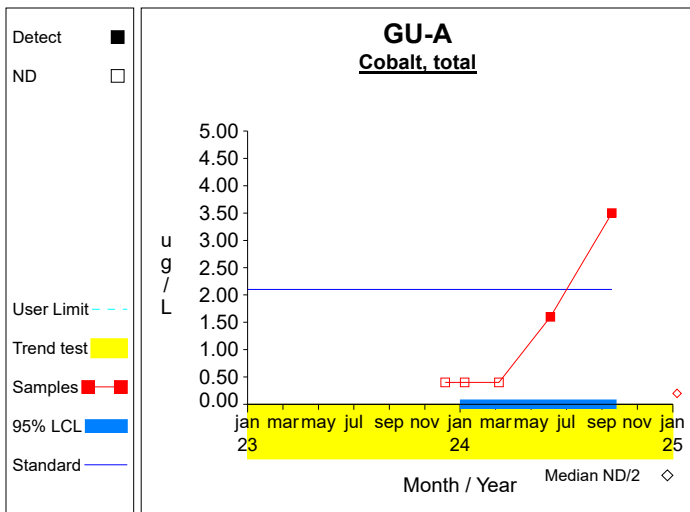
## Confidence Limits (Assessment)



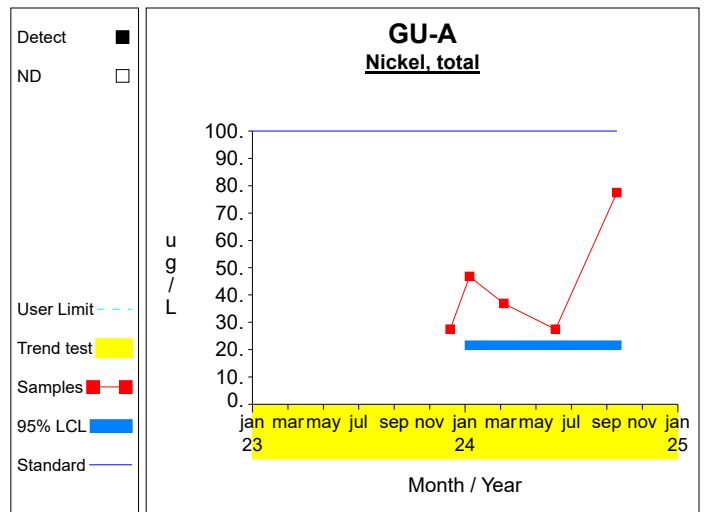
**Graph 7**



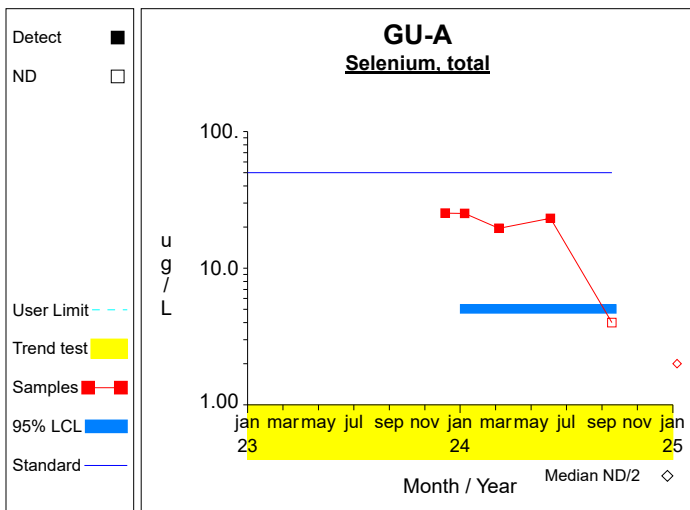
**Graph 8**



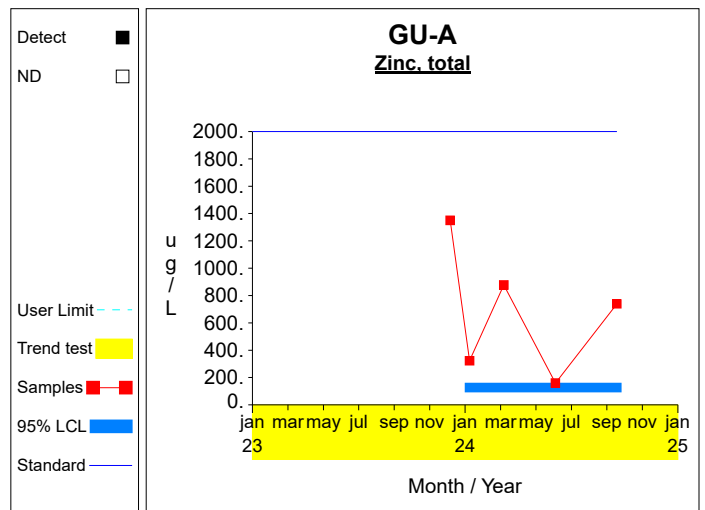
**Graph 9**



**Graph 10**

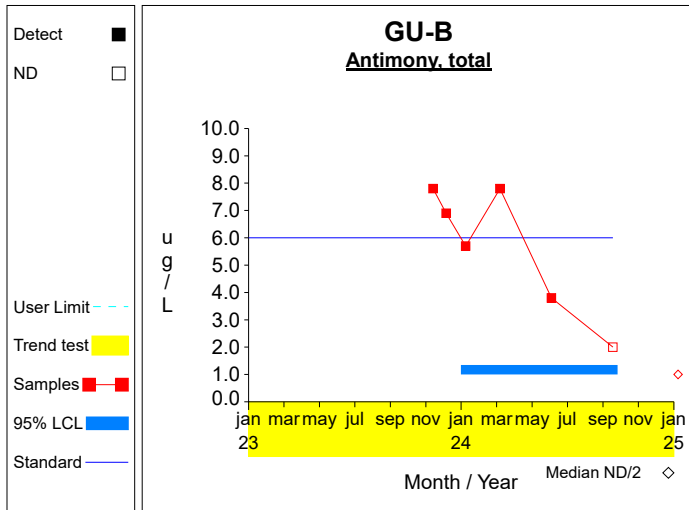


**Graph 11**

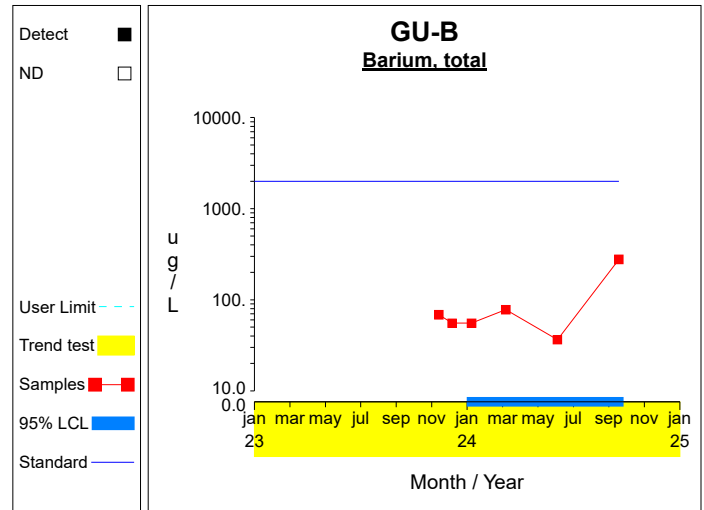


**Graph 12**

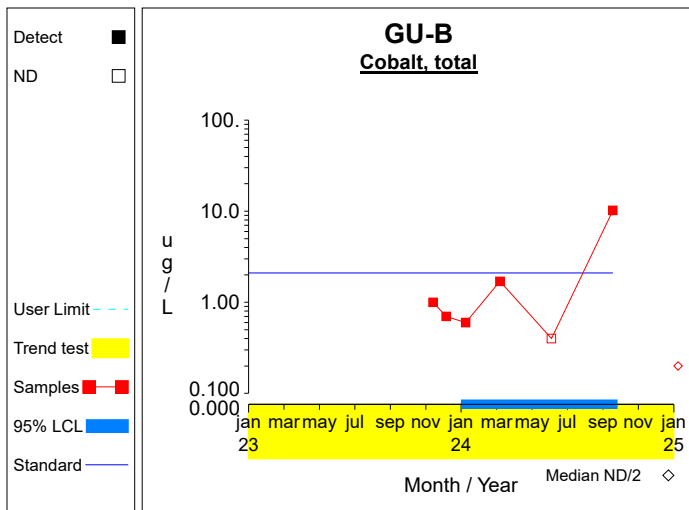
## Confidence Limits (Assessment)



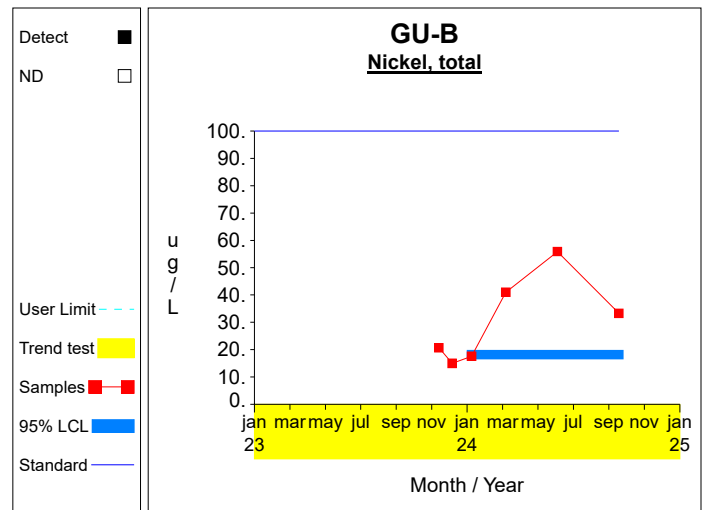
**Graph 13**



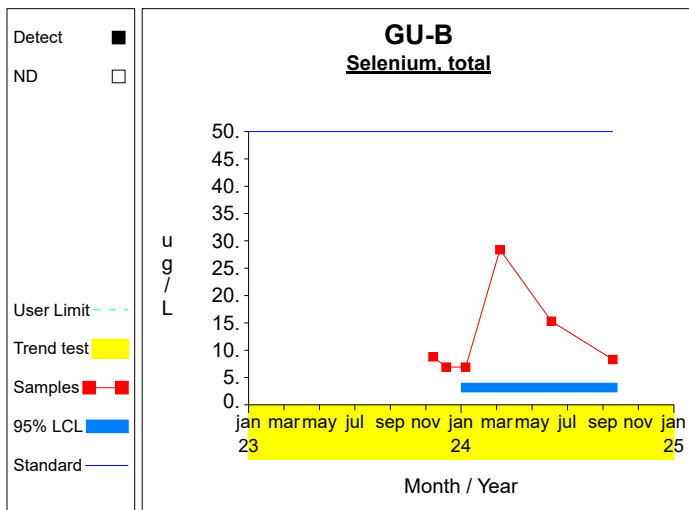
**Graph 14**



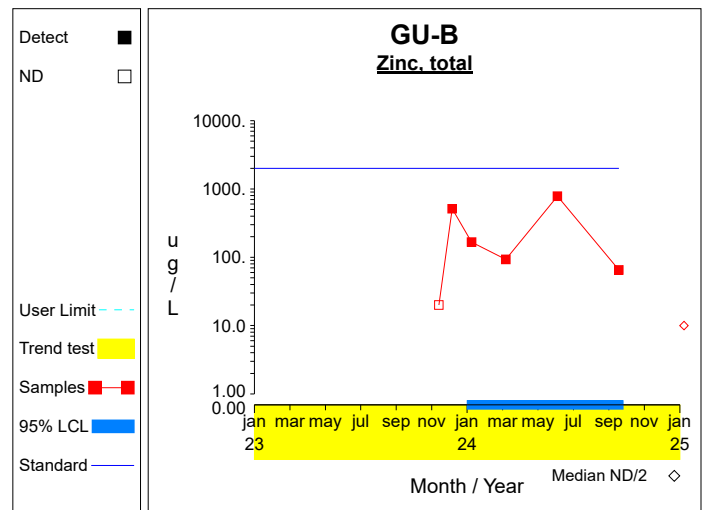
**Graph 15**



**Graph 16**

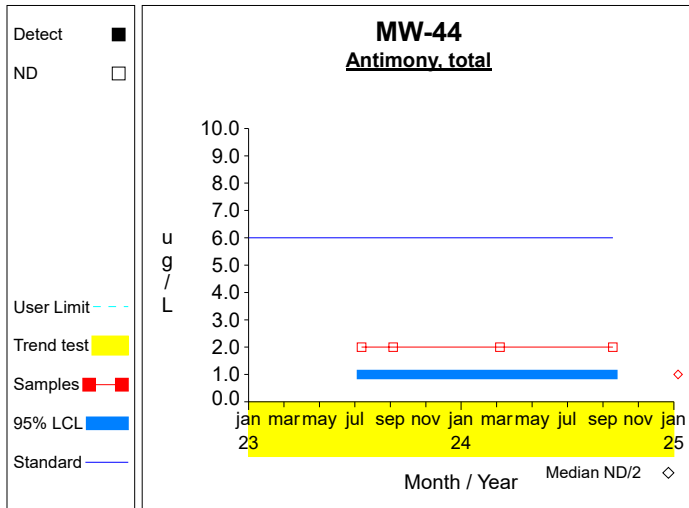


**Graph 17**

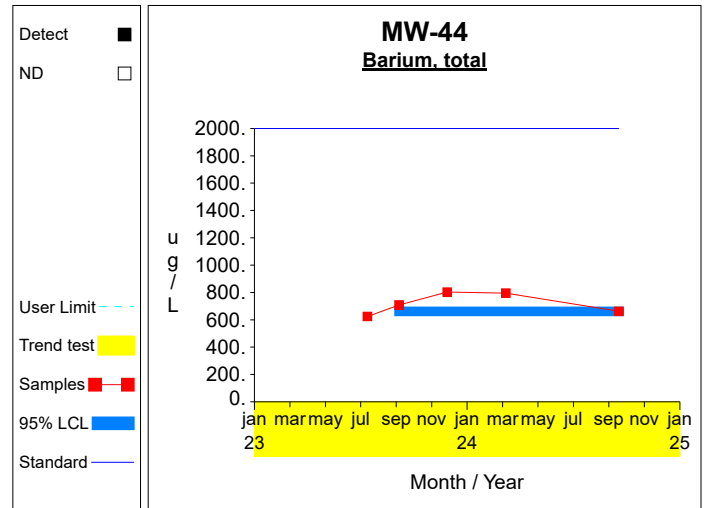


**Graph 18**

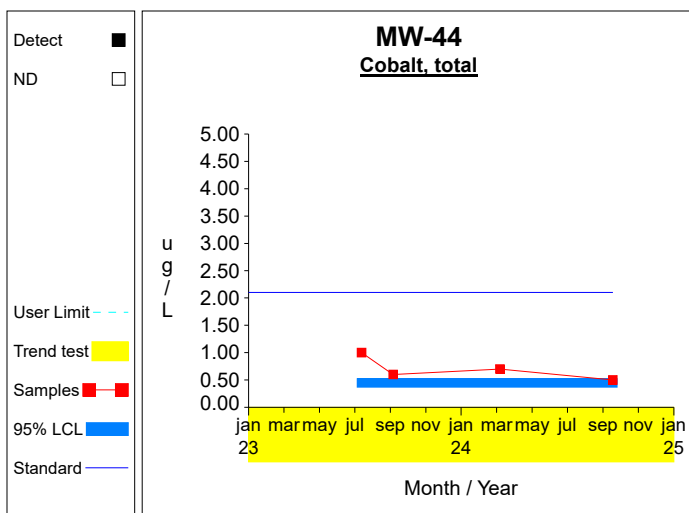
## Confidence Limits (Assessment)



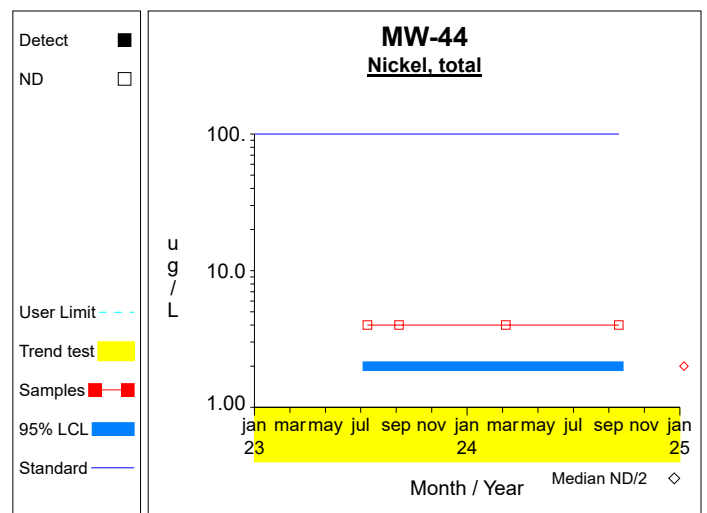
**Graph 19**



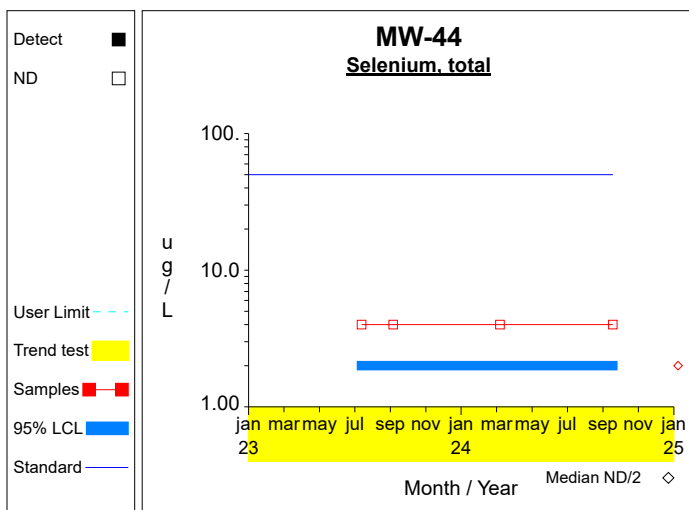
**Graph 20**



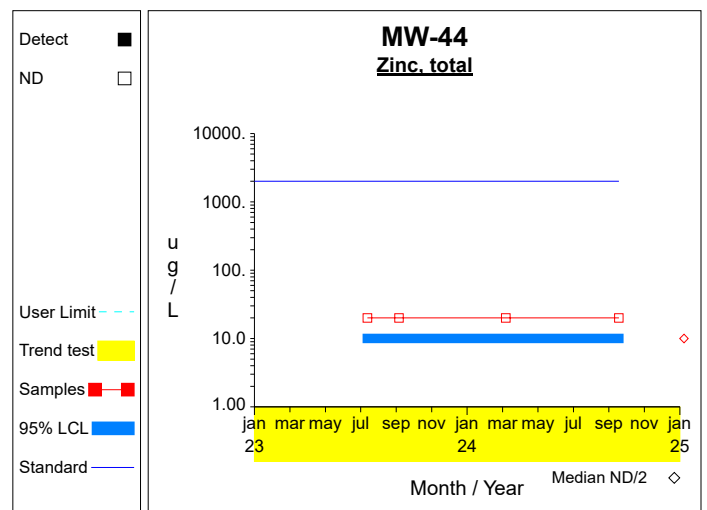
**Graph 21**



**Graph 22**



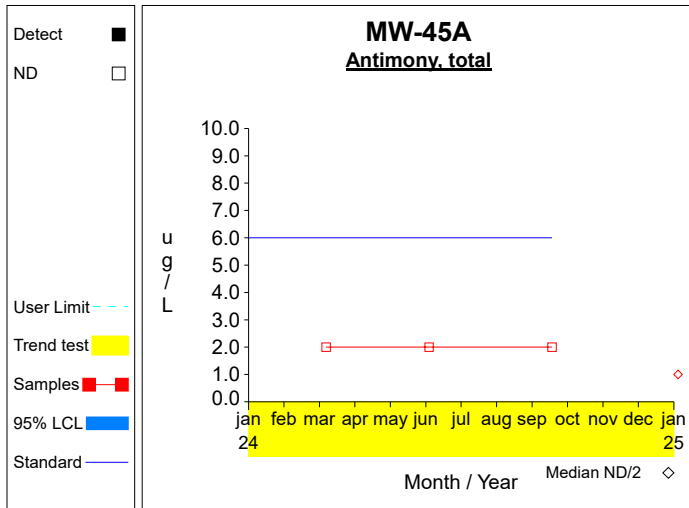
**Graph 23**



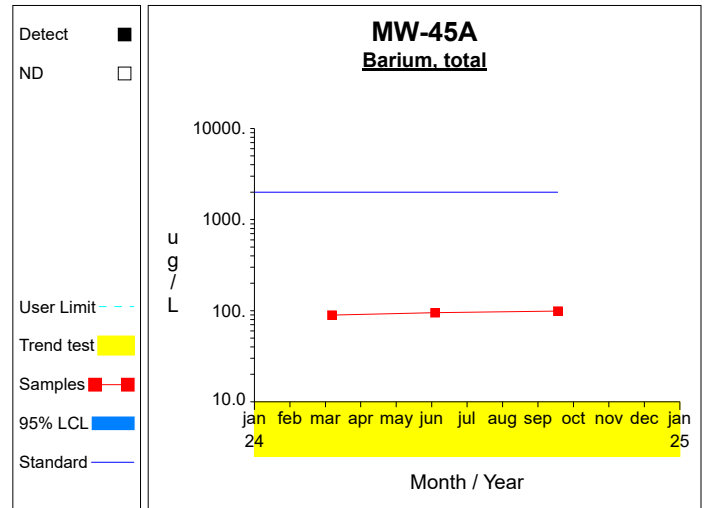
**Graph 24**



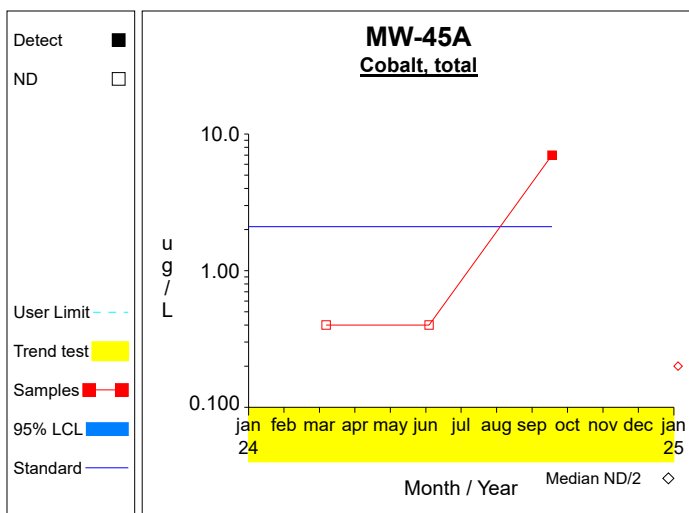
## Confidence Limits (Assessment)



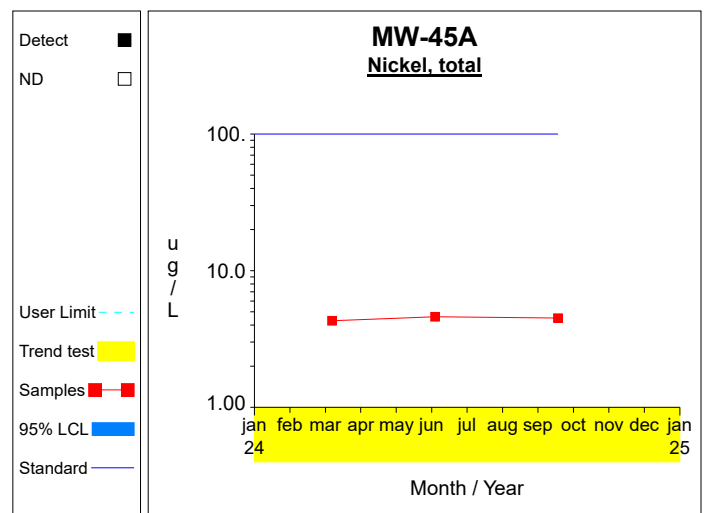
**Graph 25**



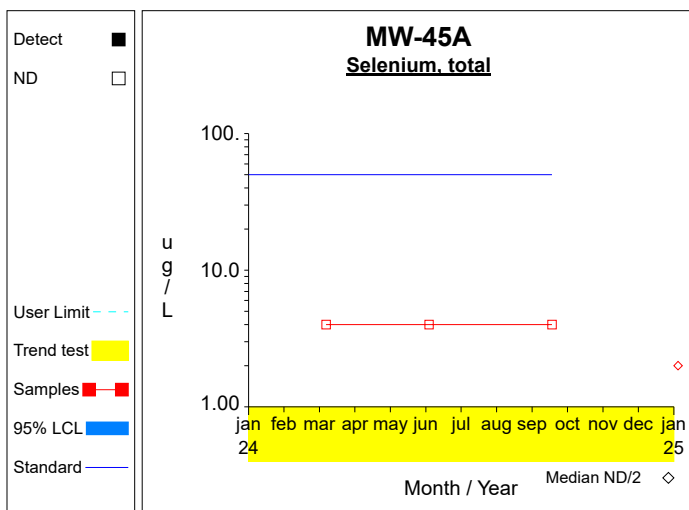
**Graph 26**



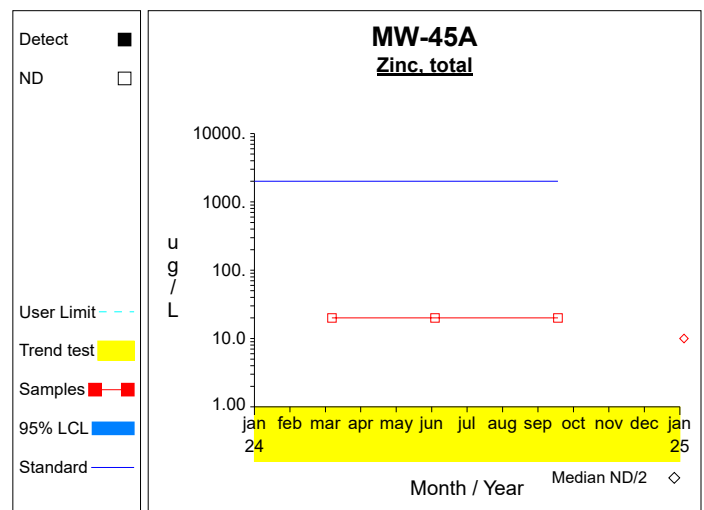
**Graph 27**



**Graph 28**

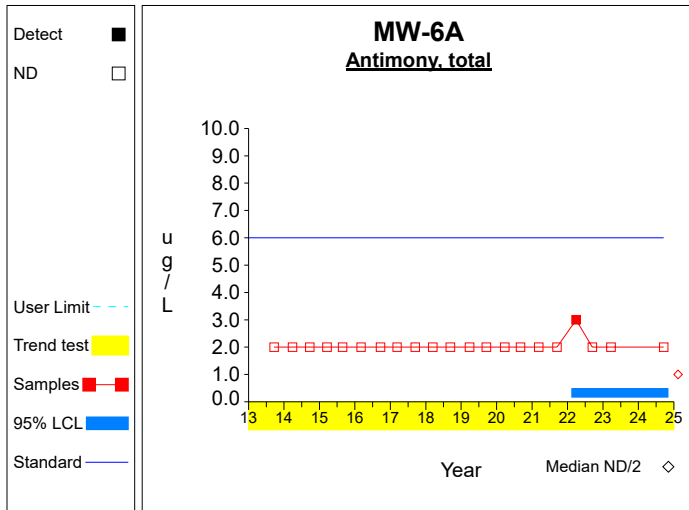


**Graph 29**

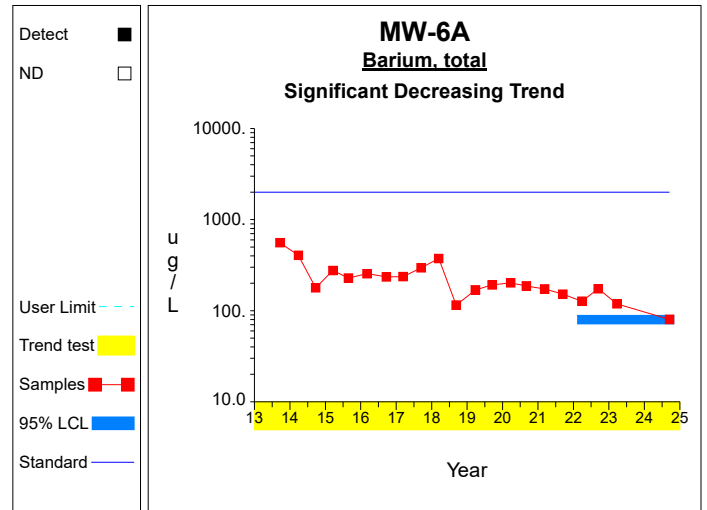


**Graph 30**

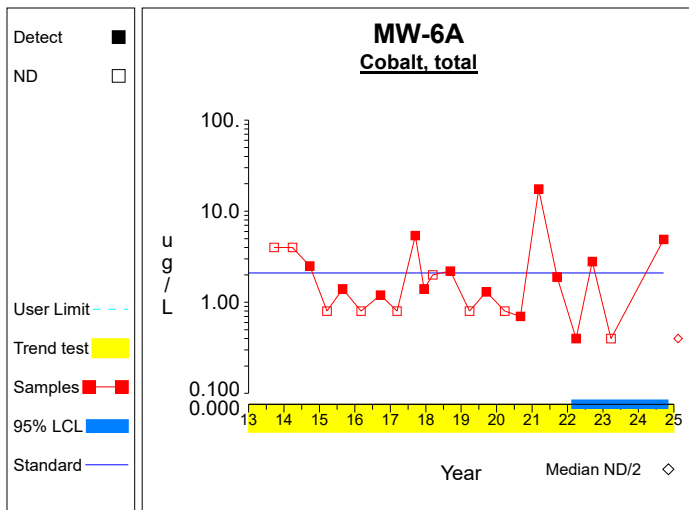
## Confidence Limits (Assessment)



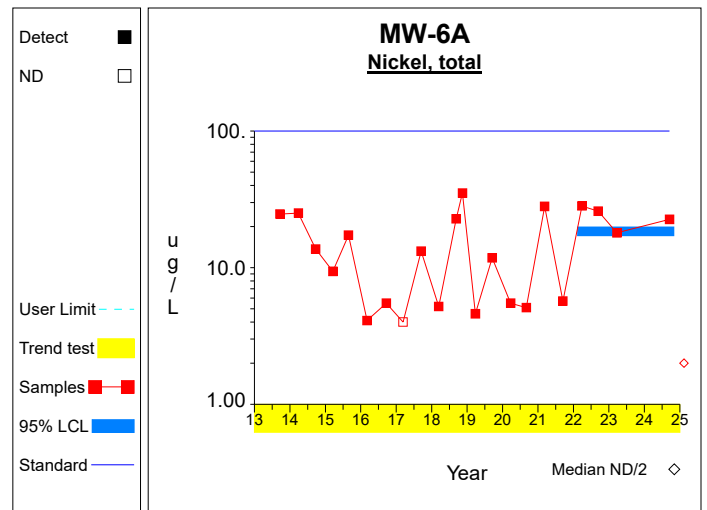
**Graph 31**



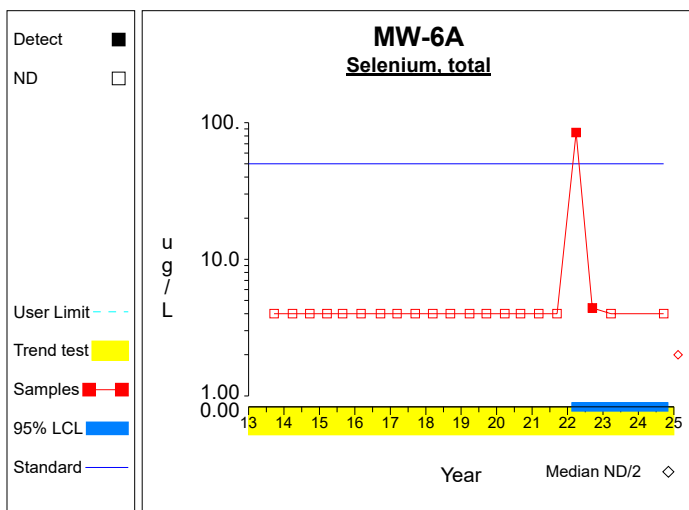
**Graph 32**



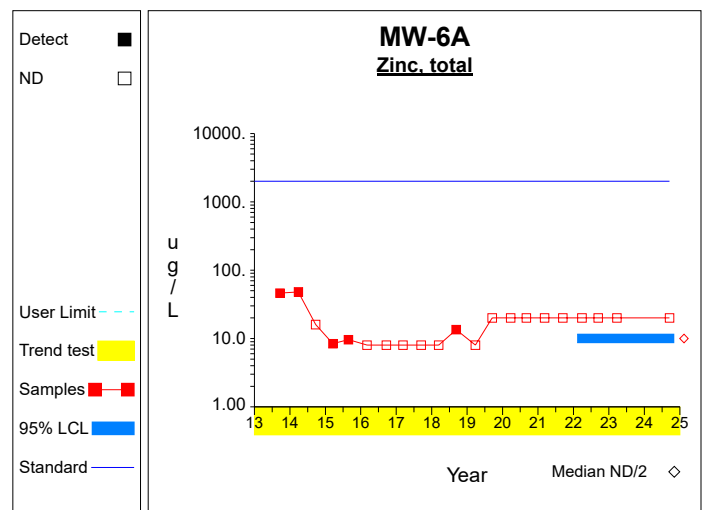
**Graph 33**



**Graph 34**

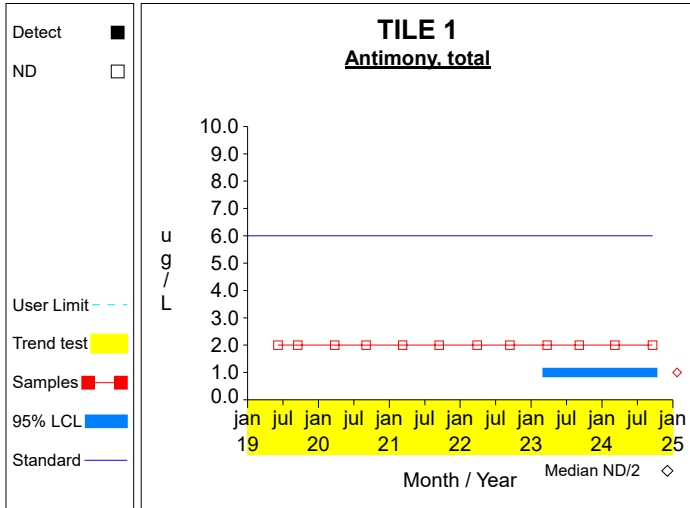


**Graph 35**

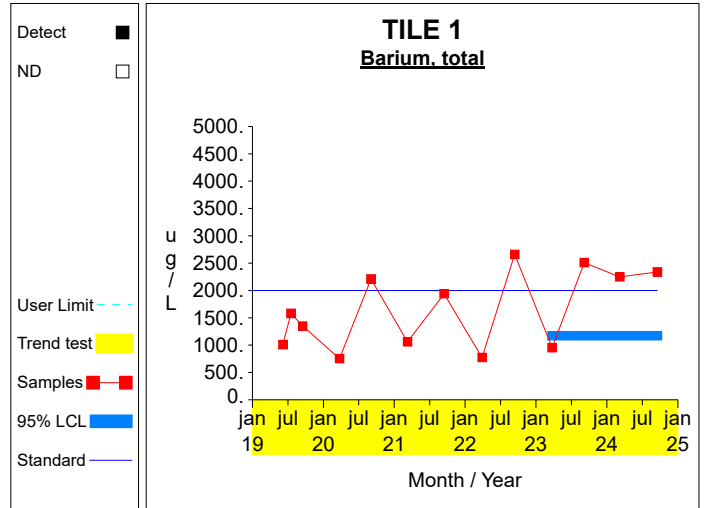


**Graph 36**

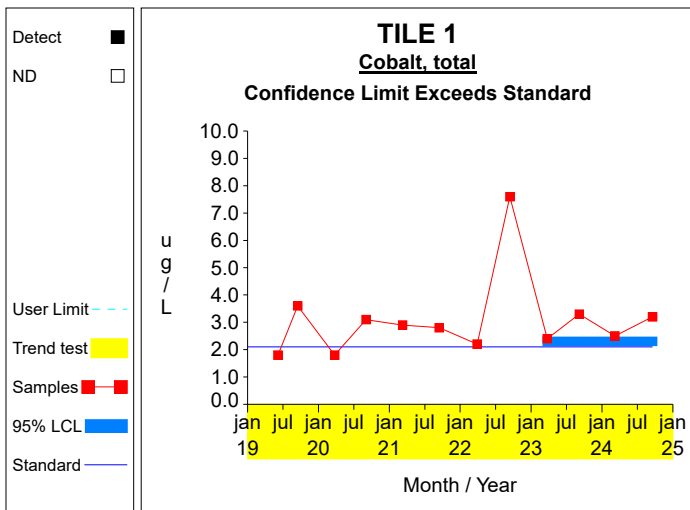
### Confidence Limits (Assessment)



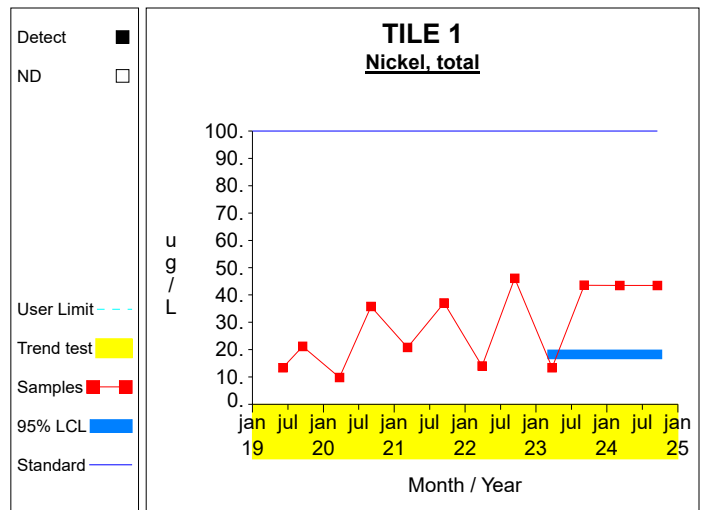
Graph 37



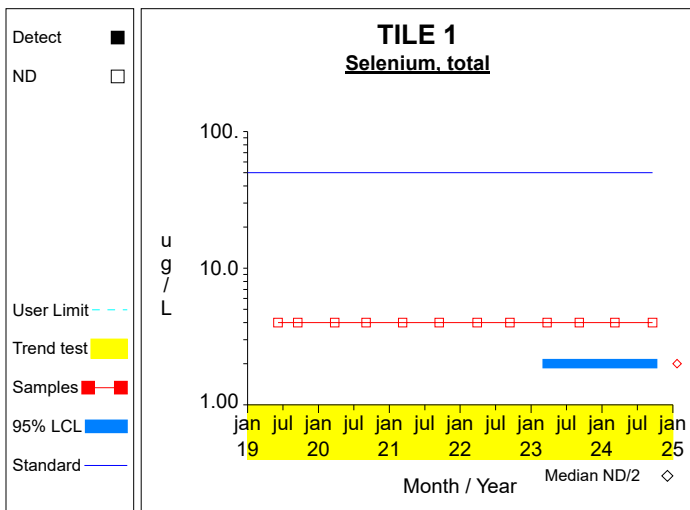
Graph 38



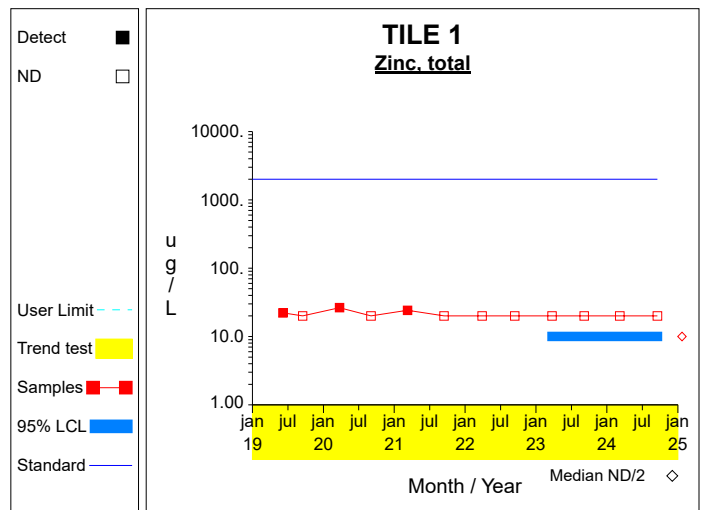
Graph 39



Graph 40

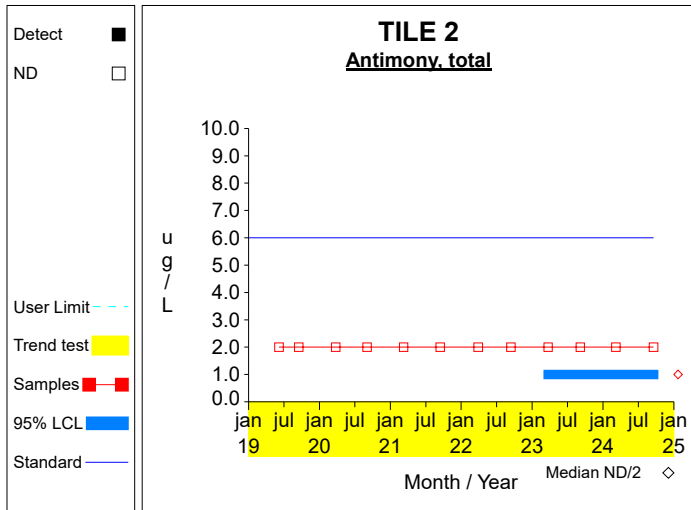


Graph 41

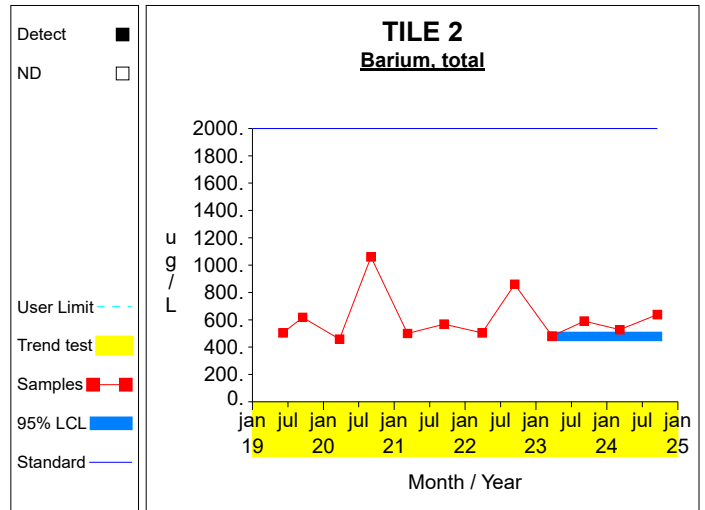


Graph 42

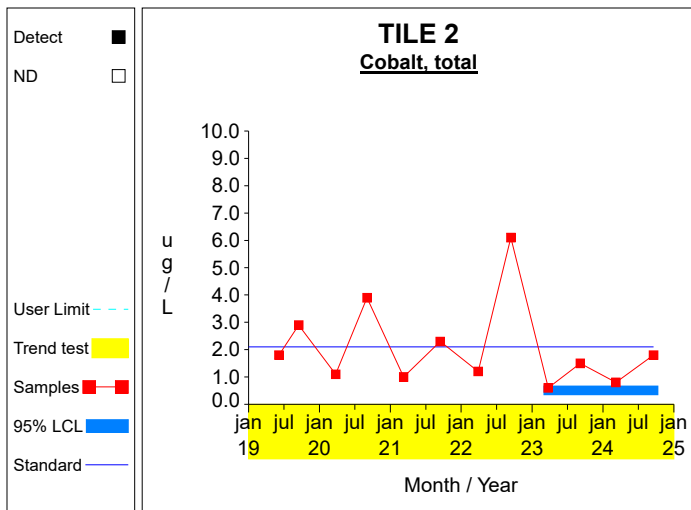
## Confidence Limits (Assessment)



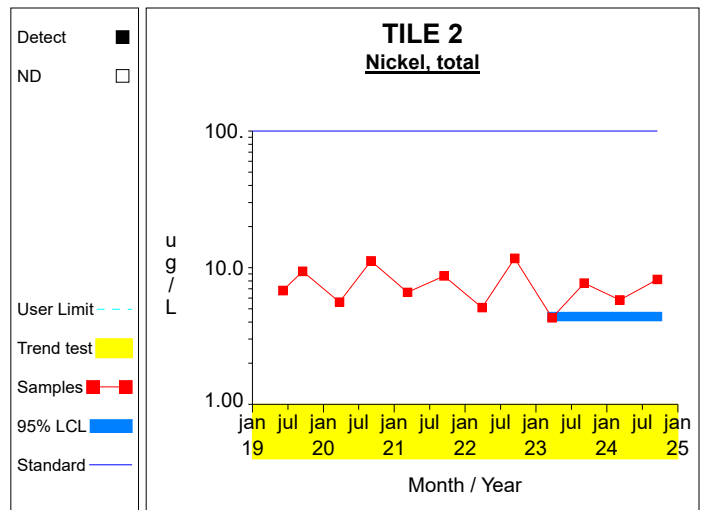
**Graph 43**



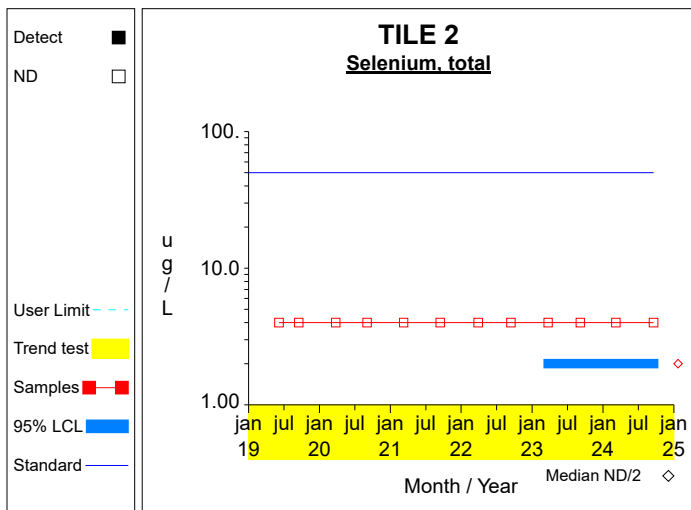
**Graph 44**



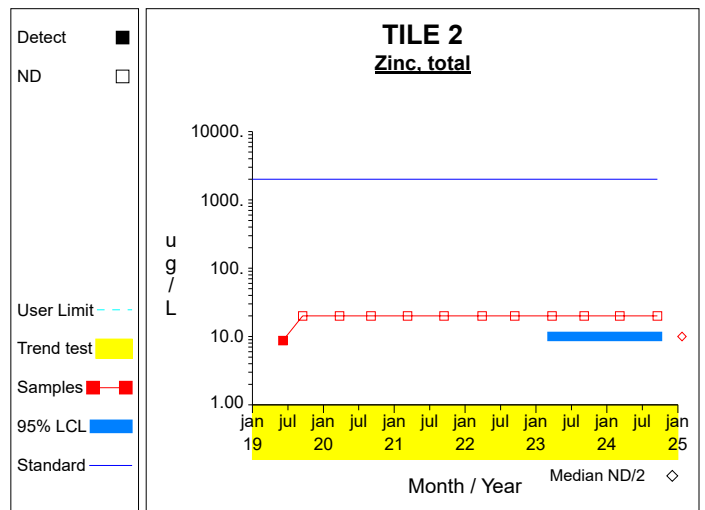
**Graph 45**



**Graph 46**



**Graph 47**



**Graph 48**

**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at GU-2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 7.6 / 4$ $= 1.9$	Compute the mean of the last 4 measurements.
2	$S = ( (\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1) )^{1/2}$ $= ( (15.76 - 57.76/4) / (4-1) )^{1/2}$ $= 0.663$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.9 - 2.353 * 0.663/4^{1/2}$ $= 1.12$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.9 + 2.353 * 0.663/4^{1/2}$ $= 2.68$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = -3.578$	Sen's estimator of trend.
7	$\text{var}(S) = 27.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 27.333^{1/2}) / 2$ $= [ 0.766, 14.234 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -29.864, 1.722 ]$	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 GU-2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 806.0 / 4$ $= 201.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{164626.0 - 649636.0/4}{4-1} \right)^{1/2}$ $= 27.185$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 201.5 - 2.353 * 27.185/4^{1/2}$ $= 169.523$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 201.5 + 2.353 * 27.185/4^{1/2}$ $= 233.477$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 15.85$	Sen's estimator of trend.
7	$\text{var}(S) = 28.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 28.333^{1/2}) / 2$ $= [ 0.644, 14.356 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -227.172, 281.539 ]$	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 GU-2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3.9 / 4$ $= 0.975$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((5.29 - 15.21/4) / (4-1))^{1/2}$ $= 0.704$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.975 - 2.353 * 0.704/4^{1/2}$ $= 0.147$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.975 + 2.353 * 0.704/4^{1/2}$ $= 1.803$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = -4.957$	Sen's estimator of trend.
7	$\text{var}(S) = 28.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 28.333^{1/2}) / 2$ $= [ 0.644, 14.356 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -31.523, -0.429 ]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	<b>Significant decreasing trend.</b>

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at GU-2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 92.5 / 4$ $= 23.125$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{2223.05 - 8556.25/4}{4-1} \right)^{1/2}$ $= 5.291$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 23.125 - 2.353 * 5.291/4^{1/2}$ $= 16.901$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 23.125 + 2.353 * 5.291/4^{1/2}$ $= 29.349$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = -21.412$	Sen's estimator of trend.
7	$\text{var}(S) = 28.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 28.333^{1/2}) / 2$ $= [ 0.644, 14.356 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -75.093, 6.875 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at GU-2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 492.0 / 4$ $= 123.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{130632.0 - 242064.0/4}{4-1} \right)^{1/2}$ $= 152.879$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 123.0 - 2.353 * 152.879/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 123.0 + 2.353 * 152.879/4^{1/2}$ $= 302.83$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 19.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 19.667^{1/2}) / 2$ $= [ 1.788, 13.212 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -474.793, 687.81 ]$	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 GU-2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1974.0 / 4$ $= 493.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{(1.16 \times 10^6) - 3.90 \times 10^6/4}{4-1} \right)^{1/2}$ $= 250.32$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 493.5 - 2.353 * 250.32/4^{1/2}$ $= 199.051$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 493.5 + 2.353 * 250.32/4^{1/2}$ $= 787.949$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 99.377$	Sen's estimator of trend.
7	$\text{var}(S) = 28.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 28.333^{1/2}) / 2$ $= [ 0.644, 14.356 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -1862.899, 6876.212 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at GU-A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 19.8 / 4$ $= 4.95$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((117.78 - 392.04/4) / (4-1))^{1/2}$ $= 2.567$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.95 - 2.353 * 2.567/4^{1/2}$ $= 1.93$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.95 + 2.353 * 2.567/4^{1/2}$ $= 7.97$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = -11.284$	Sen's estimator of trend.
7	$\text{var}(S) = 16.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 16.667^{1/2}) / 2$ $= [-0.258, 10.258]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-18.26, -1.71]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	<b>Significant decreasing trend.</b>

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at GU-A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 325.8 / 4$ $= 81.45$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{53822.12 - 106145.64/4}{4-1} \right)^{1/2}$ $= 95.369$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 81.45 - 2.353 * 95.369/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 81.45 + 2.353 * 95.369/4^{1/2}$ $= 193.631$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = 16.659$	Sen's estimator of trend.
7	$\text{var}(S) = 16.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 16.667^{1/2}) / 2$ $= [-0.258, 10.258]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-612.964, 815.07]$	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 GU-A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 5.5 / 4$ $= 1.375$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{14.89 - 30.25/4}{4-1} \right)^{1/2}$ $= 1.563$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.375 - 2.353 * 1.563/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.375 + 2.353 * 1.563/4^{1/2}$ $= 3.213$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = 3.839$	Sen's estimator of trend.
7	$\text{var}(S) = 13.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 13.0^{1/2}) / 2$ $= [ 0.356, 9.644 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 6.379 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at GU-A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 188.7 / 4$ $= 47.175$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{10314.35 - 35607.69/4}{4-1} \right)^{1/2}$ $= 21.698$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 47.175 - 2.353 * 21.698/4^{1/2}$ $= 21.652$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 47.175 + 2.353 * 21.698/4^{1/2}$ $= 72.698$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = 40.801$	Sen's estimator of trend.
7	$\text{var}(S) = 15.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 15.667^{1/2}) / 2$ $= [-0.098, 10.098]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-62.472, 207.308]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at GU-A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 70.0 / 4$ $= 17.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1561.44 - 4900.0/4}{4-1} \right)^{1/2}$ $= 10.59$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 17.5 - 2.353 * 10.59/4^{1/2}$ $= 5.043$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 17.5 + 2.353 * 10.59/4^{1/2}$ $= 29.957$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = -26.13$	Sen's estimator of trend.
7	$\text{var}(S) = 16.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 16.667^{1/2}) / 2$ $= [-0.258, 10.258]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-72.516, 14.804]$	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 GU-A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2099.0 / 4$ $= 524.75$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.45 \times 10^6 - 4.41 \times 10^6/4) / (4-1))^{1/2}$ $= 338.491$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 524.75 - 2.353 * 338.491/4^{1/2}$ $= 126.587$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 524.75 + 2.353 * 338.491/4^{1/2}$ $= 922.913$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = -591.058$	Sen's estimator of trend.
7	$\text{var}(S) = 16.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 16.667^{1/2}) / 2$ $= [-0.258, 10.258]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-11031.352, 3495.931]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at GU-B**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 18.3 / 4$ $= 4.575$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((108.77 - 334.89/4) / (4-1))^{1/2}$ $= 2.889$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.575 - 2.353 * 2.889/4^{1/2}$ $= 1.176$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.575 + 2.353 * 2.889/4^{1/2}$ $= 7.974$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = -7.496$	Sen's estimator of trend.
7	$\text{var}(S) = 27.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 27.333^{1/2}) / 2$ $= [ 0.766, 14.234 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -16.449, 5.84 ]$	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 GU-B**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 446.5 / 4$ $= 111.625$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{87164.89 - 199362.25/4}{4-1} \right)^{1/2}$ $= 111.541$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 111.625 - 2.353 * 111.541/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 111.625 + 2.353 * 111.541/4^{1/2}$ $= 242.83$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 30.143$	Sen's estimator of trend.
7	$\text{var}(S) = 27.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 27.333^{1/2}) / 2$ $= [ 0.766, 14.234 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -217.341, 477.436 ]$	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 GU-B**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 12.7 / 4$ $= 3.175$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{107.33 - 161.29/4}{4-1} \right)^{1/2}$ $= 4.726$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 3.175 - 2.353 * 4.726/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 3.175 + 2.353 * 4.726/4^{1/2}$ $= 8.734$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 2.245$	Sen's estimator of trend.
7	$\text{var}(S) = 28.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 28.333^{1/2}) / 2$ $= [ 0.644, 14.356 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -6.169, 22.397 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at GU-B**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 147.8 / 4$ $= 36.95$	Compute the mean of the last 4 measurements.
2	$S = ( (\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1) )^{1/2}$ $= ( (6224.46 - 21844.84/4) / (4-1) )^{1/2}$ $= 15.95$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 36.95 - 2.353 * 15.95/4^{1/2}$ $= 18.188$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 36.95 + 2.353 * 15.95/4^{1/2}$ $= 55.712$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 27.927$	Sen's estimator of trend.
7	$\text{var}(S) = 28.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 28.333^{1/2}) / 2$ $= [ 0.644, 14.356 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -94.568, 119.122 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at GU-B**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 58.9 / 4$ $= 14.725$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1157.15 - 3469.21/4}{4-1} \right)^{1/2}$ $= 9.829$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 14.725 - 2.353 * 9.829/4^{1/2}$ $= 3.163$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 14.725 + 2.353 * 9.829/4^{1/2}$ $= 26.287$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 1.779$	Sen's estimator of trend.
7	$\text{var}(S) = 27.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 27.333^{1/2}) / 2$ $= [ 0.766, 14.234 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -53.872, 97.204 ]$	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 GU-B**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1108.4 / 4$ $= 277.1$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{653915.28 - 1.23 \times 10^6/4}{4-1} \right)^{1/2}$ $= 339.989$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 277.1 - 2.353 * 339.989/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 277.1 + 2.353 * 339.989/4^{1/2}$ $= 677.025$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 65.143$	Sen's estimator of trend.
7	$\text{var}(S) = 28.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 28.333^{1/2}) / 2$ $= [ 0.644, 14.356 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -3716.502, 4797.208 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 4.0 / 4$ $= 1.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((4.0 - 16.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.0 - 2.353 * 0.0/4^{1/2}$ $= 1.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.0 + 2.353 * 0.0/4^{1/2}$ $= 1.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2968.0 / 4$ $= 742.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{2.22 \times 10^6 - 8.81 \times 10^6/4}{4-1} \right)^{1/2}$ $= 68.523$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 742.0 - 2.353 * 68.523/4^{1/2}$ $= 661.398$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 742.0 + 2.353 * 68.523/4^{1/2}$ $= 822.602$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = 102.852$	Sen's estimator of trend.
7	$\text{var}(S) = 16.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 16.667^{1/2}) / 2$ $= [-0.258, 10.258]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-248.357, 557.455]$	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-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.8 / 4$ $= 0.7$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((2.1 - 7.84/4) / (4-1))^{1/2}$ $= 0.216$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.7 - 2.353 * 0.216/4^{1/2}$ $= 0.446$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.7 + 2.353 * 0.216/4^{1/2}$ $= 0.954$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = -0.397$	Sen's estimator of trend.
7	$\text{var}(S) = 8.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 8.667^{1/2}) / 2$ $= [-0.792, 6.792]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-2.655, 0.2]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Zinc, total (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 40.0 / 4$ $= 10.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((400.0 - 1600.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 10.0 - 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 10.0 + 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at MW-45A**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at MW-45A**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Cobalt, total (ug/L) at MW-45A**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at MW-45A**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at MW-45A**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Zinc, total (ug/L) at MW-45A**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at MW-6A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 6.0 / 4$ $= 1.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((12.0 - 36.0/4) / (4-1))^{1/2}$ $= 1.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.5 - 2.353 * 1.0/4^{1/2}$ $= 0.324$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.5 + 2.353 * 1.0/4^{1/2}$ $= 2.676$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 146.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 146.667^{1/2}) / 2$ $= [ 89.402, 120.598 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

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

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 500.2 / 4$ $= 125.05$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{66998.04 - 250200.04/4}{4-1} \right)^{1/2}$ $= 38.506$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 125.05 - 2.353 * 38.506/4^{1/2}$ $= 79.756$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 125.05 + 2.353 * 38.506/4^{1/2}$ $= 170.344$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = -19.667$	Sen's estimator of trend.
7	$\text{var}(S) = 1096.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 1096.667^{1/2}) / 2$ $= [ 62.347, 147.653 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -35.186, -10.037 ]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	<b>Significant decreasing trend.</b>

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

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.5 / 4$ $= 2.125$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((32.17 - 72.25/4) / (4-1))^{1/2}$ $= 2.169$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.125 - 2.353 * 2.169/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.125 + 2.353 * 2.169/4^{1/2}$ $= 4.676$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 1131.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 1131.667^{1/2}) / 2$ $= [ 72.171, 158.829 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.02, 0.383 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



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

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 94.8 / 4$ $= 23.7$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{2306.46 - 8987.04/4}{4-1} \right)^{1/2}$ $= 4.461$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 23.7 - 2.353 * 4.461/4^{1/2}$ $= 18.453$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 23.7 + 2.353 * 4.461/4^{1/2}$ $= 28.947$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.289$	Sen's estimator of trend.
7	$\text{var}(S) = 1256.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 1256.667^{1/2}) / 2$ $= [ 69.841, 161.159 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -2.084, 2.241 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at MW-6A**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 93.1 / 4$ $= 23.275$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{7201.45 - 8667.61/4}{4-1} \right)^{1/2}$ $= 40.966$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 23.275 - 2.353 * 40.966/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 23.275 + 2.353 * 40.966/4^{1/2}$ $= 71.462$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 279.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 279.667^{1/2}) / 2$ $= [ 83.46, 126.54 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

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

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 40.0 / 4$ $= 10.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{400.0 - 1600.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 10.0 - 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 10.0 + 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 603.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 603.333^{1/2}) / 2$ $= [ 73.363, 136.637 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 4.0 / 4$ $= 1.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((4.0 - 16.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.0 - 2.353 * 0.0/4^{1/2}$ $= 1.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.0 + 2.353 * 0.0/4^{1/2}$ $= 1.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 33.0, 33.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8053.0 / 4$ $= 2013.25$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{(1.77 \times 10^7) - 6.49 \times 10^7/4}{4-1} \right)^{1/2}$ $= 715.007$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2013.25 - 2.353 * 715.007/4^{1/2}$ $= 1172.195$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2013.25 + 2.353 * 715.007/4^{1/2}$ $= 2854.305$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 13 * (13-1) / 2$ $= 78$	Number of sample pairs during trend detection period.
6	$S = 189.619$	Sen's estimator of trend.
7	$\text{var}(S) = 268.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (78 \pm 2.576 * 268.667^{1/2}) / 2$ $= [ 17.888, 60.112 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -200.213, 560.282 ]$	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 TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 11.4 / 4$ $= 2.85$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{33.14 - 129.96/4}{4-1} \right)^{1/2}$ $= 0.465$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.85 - 2.353 * 0.465/4^{1/2}$ $= 2.302$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.85 + 2.353 * 0.465/4^{1/2}$ $= 3.398$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 0.138$	Sen's estimator of trend.
7	$\text{var}(S) = 211.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 211.667^{1/2}) / 2$ $= [ 14.261, 51.739 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.378, 0.665 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 144.0 / 4$ $= 36.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{5865.02 - 20736.0/4}{4-1} \right)^{1/2}$ $= 15.067$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 36.0 - 2.353 * 15.067/4^{1/2}$ $= 18.277$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 36.0 + 2.353 * 15.067/4^{1/2}$ $= 53.723$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 4.721$	Sen's estimator of trend.
7	$\text{var}(S) = 210.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 210.667^{1/2}) / 2$ $= [ 14.306, 51.694 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -1.615, 11.792 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 33.0, 33.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Zinc, total (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 40.0 / 4$ $= 10.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{400.0 - 1600.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 10.0 - 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 10.0 + 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 120.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 120.667^{1/2}) / 2$ $= [ 18.852, 47.148 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -3.77, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Antimony, total (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 4.0 / 4$ $= 1.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{4.0 - 16.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.0 - 2.353 * 0.0/4^{1/2}$ $= 1.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.0 + 2.353 * 0.0/4^{1/2}$ $= 1.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 33.0, 33.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2237.0 / 4$ $= 559.25$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{(1.27 \times 10^6) - 5.00 \times 10^6/4}{4-1} \right)^{1/2}$ $= 68.912$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 559.25 - 2.353 * 68.912/4^{1/2}$ $= 478.189$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 559.25 + 2.353 * 68.912/4^{1/2}$ $= 640.311$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 8.344$	Sen's estimator of trend.
7	$\text{var}(S) = 211.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 211.667^{1/2}) / 2$ $= [ 14.261, 51.739 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -102.845, 70.199 ]$	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 TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 4.7 / 4$ $= 1.175$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((6.49 - 22.09/4) / (4-1))^{1/2}$ $= 0.568$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.175 - 2.353 * 0.568/4^{1/2}$ $= 0.507$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.175 + 2.353 * 0.568/4^{1/2}$ $= 1.843$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = -0.166$	Sen's estimator of trend.
7	$\text{var}(S) = 211.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 211.667^{1/2}) / 2$ $= [ 14.261, 51.739 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.881, 0.811 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 26.0 / 4$ $= 6.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{178.66 - 676.0/4}{4-1} \right)^{1/2}$ $= 1.794$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 6.5 - 2.353 * 1.794/4^{1/2}$ $= 4.389$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 6.5 + 2.353 * 1.794/4^{1/2}$ $= 8.611$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = -0.225$	Sen's estimator of trend.
7	$\text{var}(S) = 212.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 212.667^{1/2}) / 2$ $= [ 14.217, 51.783 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -1.665, 1.554 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Selenium, total (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 33.0, 33.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Zinc, total (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 40.0 / 4$ $= 10.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{400.0 - 1600.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 10.0 - 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 10.0 + 2.353 * 0.0/4^{1/2}$ $= 10.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 12 * (12-1) / 2$ $= 66$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 47.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (66 \pm 2.576 * 47.667^{1/2}) / 2$ $= [ 24.108, 41.892 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Attachment D**

Summary Tables and Graphs for the Interwell Comparisons  
Bedrock Ground Water



Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Antimony, total	ug/L	MW-11C	09/23/2014		2.0000	
Antimony, total	ug/L	MW-11C	09/21/2016	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/09/2017	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/14/2017	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/12/2018	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/10/2018	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/26/2019	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/16/2019	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/24/2020	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/02/2020	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/08/2021	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/14/2021	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/28/2022	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/13/2022	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/23/2023	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/05/2023	ND	2.0000	
Antimony, total	ug/L	MW-11C	03/06/2024	ND	2.0000	
Antimony, total	ug/L	MW-11C	09/18/2024	ND	2.0000	
Arsenic, total	ug/L	MW-11C	09/23/2014	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/21/2016	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/09/2017	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/14/2017	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/12/2018	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/10/2018	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/26/2019	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/16/2019	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/24/2020	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/02/2020	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/08/2021	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/14/2021	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/28/2022	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/13/2022	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/23/2023	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/05/2023	ND	4.0000	
Arsenic, total	ug/L	MW-11C	03/06/2024	ND	4.0000	
Arsenic, total	ug/L	MW-11C	09/18/2024	ND	4.0000	
Barium, total	ug/L	MW-11C	09/23/2014		130.0000	
Barium, total	ug/L	MW-11C	09/21/2016		83.7000	
Barium, total	ug/L	MW-11C	03/09/2017		91.5000	
Barium, total	ug/L	MW-11C	09/14/2017		75.9000	
Barium, total	ug/L	MW-11C	03/12/2018		71.5000	
Barium, total	ug/L	MW-11C	09/10/2018		69.9000	
Barium, total	ug/L	MW-11C	03/26/2019		70.5000	
Barium, total	ug/L	MW-11C	09/16/2019		68.6000	
Barium, total	ug/L	MW-11C	03/24/2020		67.8000	
Barium, total	ug/L	MW-11C	09/02/2020		58.8000	
Barium, total	ug/L	MW-11C	03/08/2021		53.7000	
Barium, total	ug/L	MW-11C	09/14/2021		62.3000	
Barium, total	ug/L	MW-11C	03/28/2022		53.4000	
Barium, total	ug/L	MW-11C	09/13/2022		78.3000	
Barium, total	ug/L	MW-11C	03/23/2023		69.2000	
Barium, total	ug/L	MW-11C	09/05/2023		72.3000	
Barium, total	ug/L	MW-11C	03/06/2024		75.4000	
Barium, total	ug/L	MW-11C	09/18/2024		88.4000	
Beryllium, total	ug/L	MW-11C	09/23/2014	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/21/2016	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/09/2017	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/14/2017	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/12/2018	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/10/2018	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/26/2019	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/16/2019	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/24/2020	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/02/2020	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/08/2021	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/14/2021	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/28/2022	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/13/2022	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/23/2023	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/05/2023	ND	4.0000	
Beryllium, total	ug/L	MW-11C	03/06/2024	ND	4.0000	
Beryllium, total	ug/L	MW-11C	09/18/2024	ND	4.0000	
Cadmium, total	ug/L	MW-11C	09/23/2014	ND	0.8000	
Cadmium, total	ug/L	MW-11C	09/21/2016	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-11C	03/09/2017	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/14/2017	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/10/2018	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/26/2019	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/16/2019	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/24/2020	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/14/2021	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/28/2022	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/13/2022	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/23/2023	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/05/2023	ND	0.8000		
Cadmium, total	ug/L	MW-11C	03/06/2024	ND	0.8000		
Cadmium, total	ug/L	MW-11C	09/18/2024	ND	0.8000		
Chromium, total	ug/L	MW-11C	09/23/2014	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/21/2016	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/09/2017	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/14/2017	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/10/2018	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/26/2019	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/16/2019	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/24/2020	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/02/2020	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/08/2021	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/14/2021	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/28/2022	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/13/2022	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/23/2023	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/05/2023	ND	8.0000		
Chromium, total	ug/L	MW-11C	03/06/2024	ND	8.0000		
Chromium, total	ug/L	MW-11C	09/18/2024	ND	8.0000		
Cobalt, total	ug/L	MW-11C	09/23/2014		1.3000		
Cobalt, total	ug/L	MW-11C	09/21/2016	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/09/2017	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/14/2017	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/12/2018	ND	2.0000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/10/2018	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/26/2019	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/16/2019	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	03/24/2020	ND	0.8000	0.4000	**
Cobalt, total	ug/L	MW-11C	09/02/2020	ND	0.4000		
Cobalt, total	ug/L	MW-11C	03/08/2021	ND	0.4000		
Cobalt, total	ug/L	MW-11C	09/14/2021	ND	0.4000		
Cobalt, total	ug/L	MW-11C	03/28/2022	ND	0.4000		
Cobalt, total	ug/L	MW-11C	09/13/2022		3.6000		
Cobalt, total	ug/L	MW-11C	03/23/2023	ND	0.4000		
Cobalt, total	ug/L	MW-11C	09/05/2023	ND	0.4000		
Cobalt, total	ug/L	MW-11C	03/06/2024	ND	0.4000		
Cobalt, total	ug/L	MW-11C	09/18/2024	ND	0.4000		
Copper, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Copper, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Copper, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Copper, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Copper, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Copper, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Copper, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Copper, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Copper, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Copper, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Copper, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Copper, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Copper, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Copper, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Copper, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Copper, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Copper, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Copper, total	ug/L	MW-11C	09/18/2024	ND	4.0000		
Lead, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Lead, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Lead, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Lead, total	ug/L	MW-11C	09/14/2017	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-11C	03/12/2018	ND	4.0000		
Lead, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Lead, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Lead, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Lead, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Lead, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Lead, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Lead, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Lead, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Lead, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Lead, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Lead, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Lead, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Lead, total	ug/L	MW-11C	09/18/2024	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/23/2014		9.5000		
Nickel, total	ug/L	MW-11C	09/21/2016		4.9000		
Nickel, total	ug/L	MW-11C	03/09/2017		5.9000		
Nickel, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Nickel, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Nickel, total	ug/L	MW-11C	09/18/2024	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Selenium, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Selenium, total	ug/L	MW-11C	09/18/2024	ND	4.0000		
Silver, total	ug/L	MW-11C	09/23/2014	ND	4.0000		
Silver, total	ug/L	MW-11C	09/21/2016	ND	4.0000		
Silver, total	ug/L	MW-11C	03/09/2017	ND	4.0000		
Silver, total	ug/L	MW-11C	09/14/2017	ND	4.0000		
Silver, total	ug/L	MW-11C	03/12/2018	ND	4.0000		
Silver, total	ug/L	MW-11C	09/10/2018	ND	4.0000		
Silver, total	ug/L	MW-11C	03/26/2019	ND	4.0000		
Silver, total	ug/L	MW-11C	09/16/2019	ND	4.0000		
Silver, total	ug/L	MW-11C	03/24/2020	ND	4.0000		
Silver, total	ug/L	MW-11C	09/02/2020	ND	4.0000		
Silver, total	ug/L	MW-11C	03/08/2021	ND	4.0000		
Silver, total	ug/L	MW-11C	09/14/2021	ND	4.0000		
Silver, total	ug/L	MW-11C	03/28/2022	ND	4.0000		
Silver, total	ug/L	MW-11C	09/13/2022	ND	4.0000		
Silver, total	ug/L	MW-11C	03/23/2023	ND	4.0000		
Silver, total	ug/L	MW-11C	09/05/2023	ND	4.0000		
Silver, total	ug/L	MW-11C	03/06/2024	ND	4.0000		
Silver, total	ug/L	MW-11C	09/18/2024	ND	4.0000		
Thallium, total	ug/L	MW-11C	09/23/2014	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	09/21/2016	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	03/09/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	09/14/2017	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	03/12/2018	ND	4.0000	2.0000	**
Thallium, total	ug/L	MW-11C	09/10/2018	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-11C	03/26/2019	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/16/2019	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/24/2020	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/02/2020	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/08/2021	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/14/2021	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/28/2022	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/13/2022	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/23/2023	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/05/2023	ND	2.0000		
Thallium, total	ug/L	MW-11C	03/06/2024	ND	2.0000		
Thallium, total	ug/L	MW-11C	09/18/2024	ND	2.0000		
Vanadium, total	ug/L	MW-11C	09/23/2014	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/21/2016	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/09/2017	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/14/2017	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/10/2018	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/26/2019	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/16/2019	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/24/2020	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/02/2020	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/08/2021	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/14/2021	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/28/2022	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/13/2022	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/23/2023	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/05/2023	ND	20.0000		
Vanadium, total	ug/L	MW-11C	03/06/2024	ND	20.0000		
Vanadium, total	ug/L	MW-11C	09/18/2024	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/23/2014		20.7000		
Zinc, total	ug/L	MW-11C	09/21/2016		11.9000		
Zinc, total	ug/L	MW-11C	03/09/2017		15.8000		
Zinc, total	ug/L	MW-11C	09/14/2017	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	03/12/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	09/10/2018	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	03/26/2019	ND	8.0000	20.0000	**
Zinc, total	ug/L	MW-11C	09/16/2019	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/24/2020	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/02/2020	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/14/2021	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/28/2022	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/13/2022	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/23/2023	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/05/2023	ND	20.0000		
Zinc, total	ug/L	MW-11C	03/06/2024	ND	20.0000		
Zinc, total	ug/L	MW-11C	09/18/2024	ND	20.0000		
Antimony, total	ug/L	MW-39D	09/02/2020		2.1000		
Antimony, total	ug/L	MW-39D	03/08/2021	ND	2.0000		
Antimony, total	ug/L	MW-39D	09/14/2021	ND	2.0000		
Antimony, total	ug/L	MW-39D	03/28/2022	ND	2.0000		
Antimony, total	ug/L	MW-39D	09/13/2022	ND	2.0000		
Antimony, total	ug/L	MW-39D	03/23/2023	ND	2.0000		
Antimony, total	ug/L	MW-39D	09/05/2023	ND	2.0000		
Antimony, total	ug/L	MW-39D	03/06/2024	ND	2.0000		
Antimony, total	ug/L	MW-39D	09/18/2024	ND	2.0000		
Arsenic, total	ug/L	MW-39D	09/02/2020		5.8000		
Arsenic, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Arsenic, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Arsenic, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Arsenic, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Arsenic, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Arsenic, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Arsenic, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Arsenic, total	ug/L	MW-39D	09/18/2024	ND	4.0000		
Barium, total	ug/L	MW-39D	09/02/2020		45.7000		
Barium, total	ug/L	MW-39D	03/08/2021		54.9000		
Barium, total	ug/L	MW-39D	09/14/2021		38.3000		
Barium, total	ug/L	MW-39D	03/28/2022		36.5000		
Barium, total	ug/L	MW-39D	09/13/2022		51.0000		
Barium, total	ug/L	MW-39D	03/23/2023		34.8000		
Barium, total	ug/L	MW-39D	09/05/2023		33.5000		
Barium, total	ug/L	MW-39D	03/06/2024		34.5000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Barium, total	ug/L	MW-39D	09/18/2024		26.1000		
Beryllium, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Beryllium, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Beryllium, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Beryllium, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Beryllium, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Beryllium, total	ug/L	MW-39D	09/18/2024	ND	4.0000		
Cadmium, total	ug/L	MW-39D	09/02/2020	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/08/2021	ND	0.8000		
Cadmium, total	ug/L	MW-39D	09/14/2021	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/28/2022	ND	0.8000		
Cadmium, total	ug/L	MW-39D	09/13/2022	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/23/2023	ND	0.8000		
Cadmium, total	ug/L	MW-39D	09/05/2023	ND	0.8000		
Cadmium, total	ug/L	MW-39D	03/06/2024	ND	0.8000		
Cadmium, total	ug/L	MW-39D	09/18/2024	ND	0.8000		
Chromium, total	ug/L	MW-39D	09/02/2020	ND	8.0000		
Chromium, total	ug/L	MW-39D	03/08/2021		13.2000		
Chromium, total	ug/L	MW-39D	09/14/2021	ND	8.0000		
Chromium, total	ug/L	MW-39D	03/28/2022	ND	8.0000		
Chromium, total	ug/L	MW-39D	09/13/2022	ND	8.0000		
Chromium, total	ug/L	MW-39D	03/23/2023	ND	8.0000		
Chromium, total	ug/L	MW-39D	09/05/2023	ND	8.0000		
Chromium, total	ug/L	MW-39D	03/06/2024	ND	8.0000		
Chromium, total	ug/L	MW-39D	09/18/2024	ND	8.0000		
Cobalt, total	ug/L	MW-39D	09/02/2020	ND	0.4000		
Cobalt, total	ug/L	MW-39D	03/08/2021		2.6000		*
Cobalt, total	ug/L	MW-39D	09/14/2021	ND	0.4000		
Cobalt, total	ug/L	MW-39D	03/28/2022	ND	0.4000		
Cobalt, total	ug/L	MW-39D	09/13/2022		3.3000		*
Cobalt, total	ug/L	MW-39D	03/23/2023	ND	0.4000		
Cobalt, total	ug/L	MW-39D	09/05/2023	ND	0.4000		
Cobalt, total	ug/L	MW-39D	03/06/2024	ND	0.4000		
Cobalt, total	ug/L	MW-39D	09/18/2024	ND	0.4000		
Copper, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Copper, total	ug/L	MW-39D	03/08/2021		5.6000		
Copper, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Copper, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Copper, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Copper, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Copper, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Copper, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Copper, total	ug/L	MW-39D	09/18/2024	ND	4.0000		
Lead, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Lead, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Lead, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Lead, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Lead, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Lead, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Lead, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Lead, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Lead, total	ug/L	MW-39D	09/18/2024	ND	4.0000		
Nickel, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/08/2021		10.6000		
Nickel, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Nickel, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Nickel, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Nickel, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Nickel, total	ug/L	MW-39D	09/18/2024	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/02/2020	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/08/2021	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/14/2021	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/28/2022	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/13/2022	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/23/2023	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/05/2023	ND	4.0000		
Selenium, total	ug/L	MW-39D	03/06/2024	ND	4.0000		
Selenium, total	ug/L	MW-39D	09/18/2024	ND	4.0000		
Silver, total	ug/L	MW-39D	09/02/2020	ND	4.0000		

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Silver, total	ug/L	MW-39D	03/08/2021	ND	4.0000	
Silver, total	ug/L	MW-39D	09/14/2021	ND	4.0000	
Silver, total	ug/L	MW-39D	03/28/2022	ND	4.0000	
Silver, total	ug/L	MW-39D	09/13/2022	ND	4.0000	
Silver, total	ug/L	MW-39D	03/23/2023	ND	4.0000	
Silver, total	ug/L	MW-39D	09/05/2023	ND	4.0000	
Silver, total	ug/L	MW-39D	03/06/2024	ND	4.0000	
Silver, total	ug/L	MW-39D	09/18/2024	ND	4.0000	
Thallium, total	ug/L	MW-39D	09/02/2020	ND	2.0000	
Thallium, total	ug/L	MW-39D	03/08/2021	ND	2.0000	
Thallium, total	ug/L	MW-39D	09/14/2021	ND	2.0000	
Thallium, total	ug/L	MW-39D	03/28/2022	ND	2.0000	
Thallium, total	ug/L	MW-39D	09/13/2022	ND	2.0000	
Thallium, total	ug/L	MW-39D	03/23/2023	ND	2.0000	
Thallium, total	ug/L	MW-39D	09/05/2023	ND	2.0000	
Thallium, total	ug/L	MW-39D	03/06/2024	ND	2.0000	
Thallium, total	ug/L	MW-39D	09/18/2024	ND	2.0000	
Vanadium, total	ug/L	MW-39D	09/02/2020	ND	20.0000	
Vanadium, total	ug/L	MW-39D	03/08/2021		20.0000	
Vanadium, total	ug/L	MW-39D	09/14/2021	ND	20.0000	
Vanadium, total	ug/L	MW-39D	03/28/2022	ND	20.0000	
Vanadium, total	ug/L	MW-39D	09/13/2022	ND	20.0000	
Vanadium, total	ug/L	MW-39D	03/23/2023	ND	20.0000	
Vanadium, total	ug/L	MW-39D	09/05/2023	ND	20.0000	
Vanadium, total	ug/L	MW-39D	03/06/2024	ND	20.0000	
Vanadium, total	ug/L	MW-39D	09/18/2024	ND	20.0000	
Zinc, total	ug/L	MW-39D	09/02/2020	ND	20.0000	
Zinc, total	ug/L	MW-39D	03/08/2021		20.7000	
Zinc, total	ug/L	MW-39D	09/14/2021	ND	20.0000	
Zinc, total	ug/L	MW-39D	03/28/2022	ND	20.0000	
Zinc, total	ug/L	MW-39D	09/13/2022		25.0000	
Zinc, total	ug/L	MW-39D	03/23/2023	ND	20.0000	
Zinc, total	ug/L	MW-39D	09/05/2023	ND	20.0000	
Zinc, total	ug/L	MW-39D	03/06/2024		20.4000	
Zinc, total	ug/L	MW-39D	09/18/2024	ND	20.0000	
Antimony, total	ug/L	MW-41D	09/02/2020	ND	2.0000	
Antimony, total	ug/L	MW-41D	03/08/2021	ND	2.0000	
Antimony, total	ug/L	MW-41D	09/14/2021	ND	2.0000	
Antimony, total	ug/L	MW-41D	03/28/2022	ND	2.0000	
Antimony, total	ug/L	MW-41D	09/13/2022		2.6000	
Antimony, total	ug/L	MW-41D	03/23/2023		2.8000	
Antimony, total	ug/L	MW-41D	09/05/2023		3.1000	
Antimony, total	ug/L	MW-41D	03/06/2024	ND	2.0000	
Antimony, total	ug/L	MW-41D	09/18/2024	ND	2.0000	
Arsenic, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Arsenic, total	ug/L	MW-41D	03/08/2021		5.2000	
Arsenic, total	ug/L	MW-41D	09/14/2021		4.7000	
Arsenic, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Arsenic, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Arsenic, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Arsenic, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Arsenic, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Arsenic, total	ug/L	MW-41D	09/18/2024	ND	4.0000	
Barium, total	ug/L	MW-41D	09/02/2020		38.4000	
Barium, total	ug/L	MW-41D	03/08/2021		34.4000	
Barium, total	ug/L	MW-41D	09/14/2021		30.5000	
Barium, total	ug/L	MW-41D	03/28/2022		33.7000	
Barium, total	ug/L	MW-41D	09/13/2022		31.3000	
Barium, total	ug/L	MW-41D	03/23/2023		32.2000	
Barium, total	ug/L	MW-41D	09/05/2023		30.3000	
Barium, total	ug/L	MW-41D	03/06/2024		32.6000	
Barium, total	ug/L	MW-41D	09/18/2024		33.7000	
Beryllium, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Beryllium, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Beryllium, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Beryllium, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Beryllium, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Beryllium, total	ug/L	MW-41D	09/18/2024	ND	4.0000	
Cadmium, total	ug/L	MW-41D	09/02/2020	ND	0.8000	
Cadmium, total	ug/L	MW-41D	03/08/2021	ND	0.8000	
Cadmium, total	ug/L	MW-41D	09/14/2021	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-41D	03/28/2022	ND	0.8000	
Cadmium, total	ug/L	MW-41D	09/13/2022	ND	0.8000	
Cadmium, total	ug/L	MW-41D	03/23/2023	ND	0.8000	
Cadmium, total	ug/L	MW-41D	09/05/2023	ND	0.8000	
Cadmium, total	ug/L	MW-41D	03/06/2024	ND	0.8000	
Cadmium, total	ug/L	MW-41D	09/18/2024	ND	0.8000	
Chromium, total	ug/L	MW-41D	09/02/2020	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/08/2021	ND	8.0000	
Chromium, total	ug/L	MW-41D	09/14/2021	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/28/2022	ND	8.0000	
Chromium, total	ug/L	MW-41D	09/13/2022	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/23/2023	ND	8.0000	
Chromium, total	ug/L	MW-41D	09/05/2023	ND	8.0000	
Chromium, total	ug/L	MW-41D	03/06/2024	ND	8.0000	
Chromium, total	ug/L	MW-41D	09/18/2024	ND	8.0000	
Cobalt, total	ug/L	MW-41D	09/02/2020		5.1000	
Cobalt, total	ug/L	MW-41D	03/08/2021		3.9000	
Cobalt, total	ug/L	MW-41D	09/14/2021		2.6000	
Cobalt, total	ug/L	MW-41D	03/28/2022		2.5000	
Cobalt, total	ug/L	MW-41D	09/13/2022		5.4000	
Cobalt, total	ug/L	MW-41D	03/23/2023		1.2000	
Cobalt, total	ug/L	MW-41D	09/05/2023		0.9000	
Cobalt, total	ug/L	MW-41D	03/06/2024		1.0000	
Cobalt, total	ug/L	MW-41D	09/18/2024		1.0000	
Copper, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Copper, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Copper, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Copper, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Copper, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Copper, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Copper, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Copper, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Copper, total	ug/L	MW-41D	09/18/2024	ND	4.0000	
Lead, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Lead, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Lead, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Lead, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Lead, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Lead, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Lead, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Lead, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Lead, total	ug/L	MW-41D	09/18/2024	ND	4.0000	
Nickel, total	ug/L	MW-41D	09/02/2020		11.8000	
Nickel, total	ug/L	MW-41D	03/08/2021		6.7000	
Nickel, total	ug/L	MW-41D	09/14/2021		6.6000	
Nickel, total	ug/L	MW-41D	03/28/2022		6.7000	
Nickel, total	ug/L	MW-41D	09/13/2022		10.3000	
Nickel, total	ug/L	MW-41D	03/23/2023		8.5000	
Nickel, total	ug/L	MW-41D	09/05/2023		7.5000	
Nickel, total	ug/L	MW-41D	03/06/2024		4.3000	
Nickel, total	ug/L	MW-41D	09/18/2024		5.2000	
Selenium, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Selenium, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Selenium, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Selenium, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Selenium, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Selenium, total	ug/L	MW-41D	09/18/2024	ND	4.0000	
Silver, total	ug/L	MW-41D	09/02/2020	ND	4.0000	
Silver, total	ug/L	MW-41D	03/08/2021	ND	4.0000	
Silver, total	ug/L	MW-41D	09/14/2021	ND	4.0000	
Silver, total	ug/L	MW-41D	03/28/2022	ND	4.0000	
Silver, total	ug/L	MW-41D	09/13/2022	ND	4.0000	
Silver, total	ug/L	MW-41D	03/23/2023	ND	4.0000	
Silver, total	ug/L	MW-41D	09/05/2023	ND	4.0000	
Silver, total	ug/L	MW-41D	03/06/2024	ND	4.0000	
Silver, total	ug/L	MW-41D	09/18/2024	ND	4.0000	
Thallium, total	ug/L	MW-41D	09/02/2020	ND	2.0000	
Thallium, total	ug/L	MW-41D	03/08/2021	ND	2.0000	
Thallium, total	ug/L	MW-41D	09/14/2021	ND	2.0000	
Thallium, total	ug/L	MW-41D	03/28/2022	ND	2.0000	
Thallium, total	ug/L	MW-41D	09/13/2022	ND	2.0000	

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

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Thallium, total	ug/L	MW-41D	03/23/2023	ND	2.0000	
Thallium, total	ug/L	MW-41D	09/05/2023	ND	2.0000	
Thallium, total	ug/L	MW-41D	03/06/2024	ND	2.0000	
Thallium, total	ug/L	MW-41D	09/18/2024	ND	2.0000	
Vanadium, total	ug/L	MW-41D	09/02/2020	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/08/2021	ND	20.0000	
Vanadium, total	ug/L	MW-41D	09/14/2021	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/28/2022	ND	20.0000	
Vanadium, total	ug/L	MW-41D	09/13/2022	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/23/2023	ND	20.0000	
Vanadium, total	ug/L	MW-41D	09/05/2023	ND	20.0000	
Vanadium, total	ug/L	MW-41D	03/06/2024	ND	20.0000	
Vanadium, total	ug/L	MW-41D	09/18/2024	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/02/2020	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/08/2021	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/14/2021	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/28/2022	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/13/2022	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/23/2023	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/05/2023	ND	20.0000	
Zinc, total	ug/L	MW-41D	03/06/2024	ND	20.0000	
Zinc, total	ug/L	MW-41D	09/18/2024	ND	20.0000	
Antimony, total	ug/L	MW-42D	09/02/2020		10.9000	
Antimony, total	ug/L	MW-42D	03/08/2021		8.9000	
Antimony, total	ug/L	MW-42D	09/14/2021		9.4000	
Antimony, total	ug/L	MW-42D	03/28/2022		7.4000	
Antimony, total	ug/L	MW-42D	09/13/2022	ND	2.0000	
Antimony, total	ug/L	MW-42D	03/23/2023	ND	2.0000	
Antimony, total	ug/L	MW-42D	09/05/2023	ND	2.0000	
Antimony, total	ug/L	MW-42D	03/06/2024	ND	2.0000	
Antimony, total	ug/L	MW-42D	09/18/2024	ND	2.0000	
Arsenic, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Arsenic, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Arsenic, total	ug/L	MW-42D	09/14/2021		4.3000	
Arsenic, total	ug/L	MW-42D	03/28/2022		5.0000	
Arsenic, total	ug/L	MW-42D	09/13/2022		5.7000	
Arsenic, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Arsenic, total	ug/L	MW-42D	09/05/2023		4.3000	
Arsenic, total	ug/L	MW-42D	03/06/2024		4.2000	
Arsenic, total	ug/L	MW-42D	09/18/2024	ND	4.0000	
Barium, total	ug/L	MW-42D	09/02/2020		58.3000	
Barium, total	ug/L	MW-42D	03/08/2021		53.5000	
Barium, total	ug/L	MW-42D	09/14/2021		55.5000	
Barium, total	ug/L	MW-42D	03/28/2022		52.3000	
Barium, total	ug/L	MW-42D	09/13/2022		44.7000	
Barium, total	ug/L	MW-42D	03/23/2023		40.1000	
Barium, total	ug/L	MW-42D	09/05/2023		36.6000	
Barium, total	ug/L	MW-42D	03/06/2024		37.0000	
Barium, total	ug/L	MW-42D	09/18/2024		30.6000	
Beryllium, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Beryllium, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Beryllium, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Beryllium, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Beryllium, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Beryllium, total	ug/L	MW-42D	09/18/2024	ND	4.0000	
Cadmium, total	ug/L	MW-42D	09/02/2020	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/08/2021	ND	0.8000	
Cadmium, total	ug/L	MW-42D	09/14/2021	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/28/2022	ND	0.8000	
Cadmium, total	ug/L	MW-42D	09/13/2022	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/23/2023	ND	0.8000	
Cadmium, total	ug/L	MW-42D	09/05/2023	ND	0.8000	
Cadmium, total	ug/L	MW-42D	03/06/2024	ND	0.8000	
Cadmium, total	ug/L	MW-42D	09/18/2024	ND	0.8000	
Chromium, total	ug/L	MW-42D	09/02/2020	ND	8.0000	
Chromium, total	ug/L	MW-42D	03/08/2021	ND	8.0000	
Chromium, total	ug/L	MW-42D	09/14/2021	ND	8.0000	
Chromium, total	ug/L	MW-42D	03/28/2022	ND	8.0000	
Chromium, total	ug/L	MW-42D	09/13/2022	ND	8.0000	
Chromium, total	ug/L	MW-42D	03/23/2023	ND	8.0000	
Chromium, total	ug/L	MW-42D	09/05/2023	ND	8.0000	

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



Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Chromium, total	ug/L	MW-42D	03/06/2024	ND	8.0000	
Chromium, total	ug/L	MW-42D	09/18/2024	ND	8.0000	
Cobalt, total	ug/L	MW-42D	09/02/2020	ND	0.4000	
Cobalt, total	ug/L	MW-42D	03/08/2021	ND	0.4000	
Cobalt, total	ug/L	MW-42D	09/14/2021	ND	0.4000	
Cobalt, total	ug/L	MW-42D	03/28/2022		0.5000	
Cobalt, total	ug/L	MW-42D	09/13/2022		3.4000	*
Cobalt, total	ug/L	MW-42D	03/23/2023	ND	0.4000	
Cobalt, total	ug/L	MW-42D	09/05/2023	ND	0.4000	
Cobalt, total	ug/L	MW-42D	03/06/2024	ND	0.4000	
Cobalt, total	ug/L	MW-42D	09/18/2024	ND	0.4000	
Copper, total	ug/L	MW-42D	09/02/2020		6.5000	
Copper, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Copper, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Copper, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Copper, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Copper, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Copper, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Copper, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Copper, total	ug/L	MW-42D	09/18/2024	ND	4.0000	
Lead, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Lead, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Lead, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Lead, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Lead, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Lead, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Lead, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Lead, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Lead, total	ug/L	MW-42D	09/18/2024	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Nickel, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Nickel, total	ug/L	MW-42D	09/18/2024	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Selenium, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Selenium, total	ug/L	MW-42D	09/18/2024	ND	4.0000	
Silver, total	ug/L	MW-42D	09/02/2020	ND	4.0000	
Silver, total	ug/L	MW-42D	03/08/2021	ND	4.0000	
Silver, total	ug/L	MW-42D	09/14/2021	ND	4.0000	
Silver, total	ug/L	MW-42D	03/28/2022	ND	4.0000	
Silver, total	ug/L	MW-42D	09/13/2022	ND	4.0000	
Silver, total	ug/L	MW-42D	03/23/2023	ND	4.0000	
Silver, total	ug/L	MW-42D	09/05/2023	ND	4.0000	
Silver, total	ug/L	MW-42D	03/06/2024	ND	4.0000	
Silver, total	ug/L	MW-42D	09/18/2024	ND	4.0000	
Thallium, total	ug/L	MW-42D	09/02/2020	ND	2.0000	
Thallium, total	ug/L	MW-42D	03/08/2021	ND	2.0000	
Thallium, total	ug/L	MW-42D	09/14/2021	ND	2.0000	
Thallium, total	ug/L	MW-42D	03/28/2022	ND	2.0000	
Thallium, total	ug/L	MW-42D	09/13/2022	ND	2.0000	
Thallium, total	ug/L	MW-42D	03/23/2023	ND	2.0000	
Thallium, total	ug/L	MW-42D	09/05/2023	ND	2.0000	
Thallium, total	ug/L	MW-42D	03/06/2024	ND	2.0000	
Thallium, total	ug/L	MW-42D	09/18/2024	ND	2.0000	
Vanadium, total	ug/L	MW-42D	09/02/2020	ND	20.0000	
Vanadium, total	ug/L	MW-42D	03/08/2021	ND	20.0000	
Vanadium, total	ug/L	MW-42D	09/14/2021	ND	20.0000	
Vanadium, total	ug/L	MW-42D	03/28/2022	ND	20.0000	
Vanadium, total	ug/L	MW-42D	09/13/2022	ND	20.0000	
Vanadium, total	ug/L	MW-42D	03/23/2023	ND	20.0000	
Vanadium, total	ug/L	MW-42D	09/05/2023	ND	20.0000	
Vanadium, total	ug/L	MW-42D	03/06/2024	ND	20.0000	
Vanadium, total	ug/L	MW-42D	09/18/2024	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 1**

**Upgradient Data**

Constituent	Units	Well	Date		Result	Adjusted	
Zinc, total	ug/L	MW-42D	09/02/2020		34.5000		
Zinc, total	ug/L	MW-42D	03/08/2021	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/14/2021	ND	20.0000		
Zinc, total	ug/L	MW-42D	03/28/2022	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/13/2022	ND	20.0000		
Zinc, total	ug/L	MW-42D	03/23/2023	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/05/2023	ND	20.0000		
Zinc, total	ug/L	MW-42D	03/06/2024	ND	20.0000		
Zinc, total	ug/L	MW-42D	09/18/2024	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	MW-14D	09/18/2024	ND	2.0000		10.9000
Arsenic, total	ug/L	MW-14D	09/18/2024	ND	4.0000		5.8000
Barium, total	ug/L	MW-14D	09/18/2024		22.6000		106.3060
Beryllium, total	ug/L	MW-14D	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-14D	09/18/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-14D	09/18/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-14D	09/18/2024		1.5000		5.4000
Copper, total	ug/L	MW-14D	09/18/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-14D	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-14D	09/18/2024	ND	4.0000		11.8000
Selenium, total	ug/L	MW-14D	09/18/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-14D	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-14D	09/18/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-14D	09/18/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-14D	09/18/2024	ND	20.0000		34.5000
Antimony, total	ug/L	MW-17R	09/18/2024	ND	2.0000		10.9000
Arsenic, total	ug/L	MW-17R	09/18/2024	ND	4.0000		5.8000
Barium, total	ug/L	MW-17R	09/18/2024		435.0000	***	106.3060
Beryllium, total	ug/L	MW-17R	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-17R	09/18/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-17R	09/18/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-17R	09/18/2024		4.1000		5.4000
Copper, total	ug/L	MW-17R	09/18/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-17R	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-17R	09/18/2024		24.2000	***	11.8000
Selenium, total	ug/L	MW-17R	09/18/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-17R	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-17R	09/18/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-17R	09/18/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-17R	09/18/2024	ND	20.0000		34.5000
Antimony, total	ug/L	MW-28	09/18/2024	ND	2.0000		10.9000
Arsenic, total	ug/L	MW-28	09/18/2024		4.0000	**	5.8000
Barium, total	ug/L	MW-28	09/18/2024		652.0000	***	106.3060
Beryllium, total	ug/L	MW-28	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-28	09/18/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-28	09/18/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-28	09/18/2024		23.4000	***	5.4000
Copper, total	ug/L	MW-28	09/18/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-28	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-28	09/18/2024		15.2000	***	11.8000
Selenium, total	ug/L	MW-28	09/18/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-28	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-28	09/18/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-28	09/18/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-28	09/18/2024	ND	20.0000		34.5000
Antimony, total	ug/L	MW-45D	09/18/2024	ND	2.0000		10.9000
Arsenic, total	ug/L	MW-45D	09/18/2024		9.7000	***	5.8000
Barium, total	ug/L	MW-45D	09/18/2024		83.1000		106.3060
Beryllium, total	ug/L	MW-45D	09/18/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-45D	09/18/2024	ND	0.8000		0.8000
Chromium, total	ug/L	MW-45D	09/18/2024	ND	8.0000		13.2000
Cobalt, total	ug/L	MW-45D	09/18/2024		0.8000		5.4000
Copper, total	ug/L	MW-45D	09/18/2024	ND	4.0000		6.5000
Lead, total	ug/L	MW-45D	09/18/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-45D	09/18/2024	ND	4.0000		11.8000
Selenium, total	ug/L	MW-45D	09/18/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-45D	09/18/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-45D	09/18/2024	ND	2.0000		2.0000
Vanadium, total	ug/L	MW-45D	09/18/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-45D	09/18/2024	ND	20.0000		34.5000

\* - 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	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, total	9	45	0.200	14	50	0.280
Arsenic, total	8	45	0.178	14	49	0.286
Barium, total	45	45	1.000	49	49	1.000
Beryllium, total	0	45	0.000	0	49	0.000
Cadmium, total	0	45	0.000	0	49	0.000
Chromium, total	1	45	0.022	0	49	0.000
Cobalt, total	12	42	0.286	44	50	0.880
Copper, total	2	45	0.044	0	49	0.000
Lead, total	0	45	0.000	0	49	0.000
Nickel, total	13	45	0.289	31	50	0.620
Selenium, total	0	45	0.000	10	54	0.185
Silver, total	0	45	0.000	0	49	0.000
Thallium, total	0	45	0.000	0	49	0.000
Vanadium, total	1	45	0.022	0	49	0.000
Zinc, total	7	45	0.156	2	49	0.041

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	9	45	0.200	1.683	1.643					2.326	normal	nonpar
Arsenic, total	8	45	0.178	1.205	1.119					2.326	normal	nonpar
Barium, total	45	45	1.000	1.888	0.711					2.326	normal	normal
Beryllium, total	0	45	0.000									nonpar
Cadmium, total	0	45	0.000									nonpar
Chromium, total	1	45	0.022									nonpar
Cobalt, total	12	42	0.286	1.370	1.161					2.326	normal	nonpar
Copper, total	2	45	0.044									nonpar
Lead, total	0	45	0.000									nonpar
Nickel, total	13	45	0.289	0.033	0.946					2.326	normal	nonpar
Selenium, total	0	45	0.000									nonpar
Silver, total	0	45	0.000									nonpar
Thallium, total	0	45	0.000									nonpar
Vanadium, total	1	45	0.022									nonpar
Zinc, total	7	45	0.156	0.054	0.533					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	9	45					10.9000	nonpar	0.99
Arsenic, total	ug/L	8	45					5.8000	nonpar	0.99
Barium, total	ug/L	45	45	53.3822	21.6836	0.0100	2.4407	106.3060	normal	
Beryllium, total	ug/L	0	45					4.0000	nonpar	*** 0.99
Cadmium, total	ug/L	0	45					0.8000	nonpar	*** 0.99
Chromium, total	ug/L	1	45					13.2000	nonpar	0.99
Cobalt, total	ug/L	12	42					5.4000	nonpar	0.99
Copper, total	ug/L	2	45					6.5000	nonpar	0.99
Lead, total	ug/L	0	45					4.0000	nonpar	*** 0.99
Nickel, total	ug/L	13	45					11.8000	nonpar	0.99
Selenium, total	ug/L	0	45					4.0000	nonpar	*** 0.99
Silver, total	ug/L	0	45					4.0000	nonpar	*** 0.99
Thallium, total	ug/L	0	45					2.0000	nonpar	*** 0.99
Vanadium, total	ug/L	1	45					20.0000	nonpar	*** 0.99
Zinc, total	ug/L	7	45					34.5000	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
Cobalt, total	ug/L	MW-39D	03/08/2021	2.6000		09/02/2020-09/18/2024	9	0.6808
Cobalt, total	ug/L	MW-39D	09/13/2022	3.3000		09/02/2020-09/18/2024	9	0.6808
Cobalt, total	ug/L	MW-42D	09/13/2022	3.4000		09/02/2020-09/18/2024	9	0.6346

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
Barium, total	ug/L	MW-17R	09/23/2014		344.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/03/2016		378.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/21/2016		369.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/09/2017		369.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/14/2017		411.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/12/2018		408.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/10/2018		406.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/26/2019		430.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/16/2019		533.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/24/2020		429.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/02/2020		398.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/08/2021		416.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/14/2021		442.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/28/2022		446.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/13/2022		587.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/23/2023		446.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/05/2023		422.0000	*	106.3060
Barium, total	ug/L	MW-17R	03/06/2024		432.0000	*	106.3060
Barium, total	ug/L	MW-17R	09/18/2024		435.0000	*	106.3060
Nickel, total	ug/L	MW-17R	09/23/2014		14.9000	*	11.8000
Nickel, total	ug/L	MW-17R	03/03/2016		16.3000	*	11.8000
Nickel, total	ug/L	MW-17R	09/21/2016		15.2000	*	11.8000
Nickel, total	ug/L	MW-17R	03/09/2017		16.6000	*	11.8000
Nickel, total	ug/L	MW-17R	09/14/2017		20.1000	*	11.8000
Nickel, total	ug/L	MW-17R	12/13/2017		17.2000	*	11.8000
Nickel, total	ug/L	MW-17R	03/12/2018		17.6000	*	11.8000
Nickel, total	ug/L	MW-17R	09/10/2018		18.1000	*	11.8000
Nickel, total	ug/L	MW-17R	03/26/2019		20.3000	*	11.8000
Nickel, total	ug/L	MW-17R	09/16/2019		21.4000	*	11.8000
Nickel, total	ug/L	MW-17R	03/24/2020		19.2000	*	11.8000
Nickel, total	ug/L	MW-17R	09/02/2020		19.0000	*	11.8000
Nickel, total	ug/L	MW-17R	03/08/2021		20.8000	*	11.8000
Nickel, total	ug/L	MW-17R	09/14/2021		21.8000	*	11.8000
Nickel, total	ug/L	MW-17R	03/28/2022		22.3000	*	11.8000
Nickel, total	ug/L	MW-17R	09/13/2022		28.9000	*	11.8000
Nickel, total	ug/L	MW-17R	03/23/2023		22.2000	*	11.8000
Nickel, total	ug/L	MW-17R	09/05/2023		21.4000	*	11.8000
Nickel, total	ug/L	MW-17R	03/06/2024		18.9000	*	11.8000
Nickel, total	ug/L	MW-17R	09/18/2024		24.2000	*	11.8000
Arsenic, total	ug/L	MW-28	03/24/2020		72.8000	*	5.8000
Arsenic, total	ug/L	MW-28	09/02/2020	ND	4.0000	*	5.8000
Arsenic, total	ug/L	MW-28	03/08/2021		13.8000	*	5.8000
Arsenic, total	ug/L	MW-28	10/15/2021		4.3000	*	5.8000
Arsenic, total	ug/L	MW-28	03/28/2022		38.7000	*	5.8000
Arsenic, total	ug/L	MW-28	09/13/2022		8.2000	*	5.8000
Arsenic, total	ug/L	MW-28	03/23/2023		100.0000	*	5.8000
Arsenic, total	ug/L	MW-28	09/05/2023		8.8000	*	5.8000
Arsenic, total	ug/L	MW-28	03/06/2024		59.7000	*	5.8000
Arsenic, total	ug/L	MW-28	09/18/2024		4.0000	*	5.8000
Barium, total	ug/L	MW-28	03/24/2020		1030.0000	*	106.3060
Barium, total	ug/L	MW-28	09/02/2020		655.0000	*	106.3060
Barium, total	ug/L	MW-28	03/08/2021		735.0000	*	106.3060
Barium, total	ug/L	MW-28	10/15/2021		679.0000	*	106.3060
Barium, total	ug/L	MW-28	03/28/2022		1080.0000	*	106.3060
Barium, total	ug/L	MW-28	09/13/2022		865.0000	*	106.3060
Barium, total	ug/L	MW-28	03/23/2023		1570.0000	*	106.3060
Barium, total	ug/L	MW-28	09/05/2023		647.0000	*	106.3060
Barium, total	ug/L	MW-28	03/06/2024		1390.0000	*	106.3060
Barium, total	ug/L	MW-28	09/18/2024		652.0000	*	106.3060
Cobalt, total	ug/L	MW-28	03/24/2020		38.2000	*	5.4000
Cobalt, total	ug/L	MW-28	09/02/2020		41.9000	*	5.4000
Cobalt, total	ug/L	MW-28	03/08/2021		47.3000	*	5.4000
Cobalt, total	ug/L	MW-28	10/15/2021		40.7000	*	5.4000
Cobalt, total	ug/L	MW-28	03/28/2022		79.3000	*	5.4000
Cobalt, total	ug/L	MW-28	09/13/2022		54.2000	*	5.4000
Cobalt, total	ug/L	MW-28	03/23/2023		82.1000	*	5.4000
Cobalt, total	ug/L	MW-28	09/05/2023		28.6000	*	5.4000
Cobalt, total	ug/L	MW-28	03/06/2024		72.7000	*	5.4000
Cobalt, total	ug/L	MW-28	09/18/2024		23.4000	*	5.4000
Nickel, total	ug/L	MW-28	03/24/2020		20.2000	*	11.8000
Nickel, total	ug/L	MW-28	09/02/2020		21.5000	*	11.8000

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



**Table 8**

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

Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-28	03/08/2021		23.7000	*	11.8000
Nickel, total	ug/L	MW-28	10/15/2021		18.8000	*	11.8000
Nickel, total	ug/L	MW-28	03/28/2022		29.0000	*	11.8000
Nickel, total	ug/L	MW-28	09/13/2022		22.0000	*	11.8000
Nickel, total	ug/L	MW-28	03/23/2023		29.8000	*	11.8000
Nickel, total	ug/L	MW-28	09/05/2023		19.1000	*	11.8000
Nickel, total	ug/L	MW-28	03/06/2024		26.9000	*	11.8000
Nickel, total	ug/L	MW-28	09/18/2024		15.2000	*	11.8000
Arsenic, total	ug/L	MW-45D	03/06/2024	ND	4.0000		5.8000
Arsenic, total	ug/L	MW-45D	06/03/2024		7.9000	*	5.8000
Arsenic, total	ug/L	MW-45D	09/18/2024		9.7000	*	5.8000

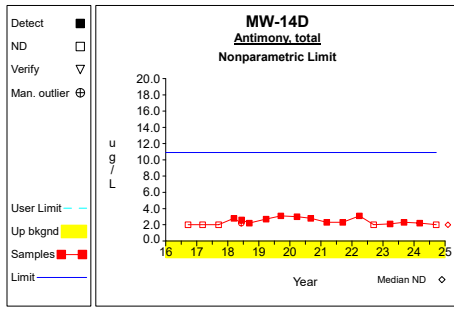
\* - Significantly increased over background.

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

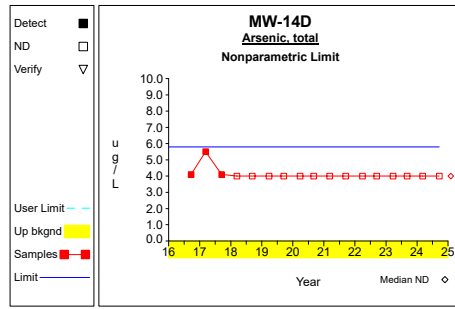
\*\*\* - Manual exclusion.

ND = Not Detected, Result = detection limit.

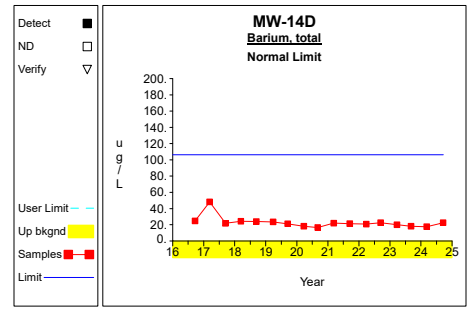
# Up vs. Down Prediction Limits



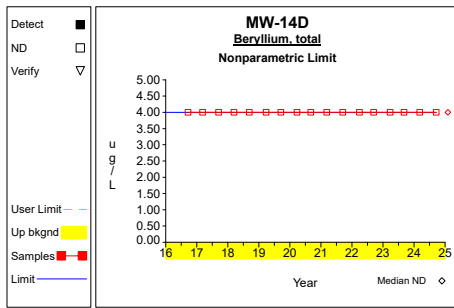
Graph 1



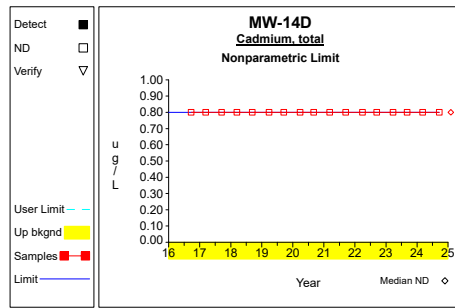
Graph 2



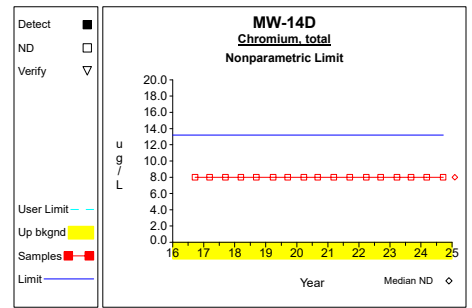
Graph 3



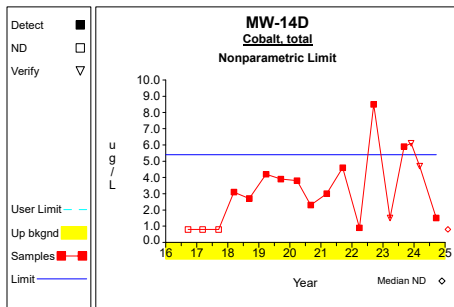
Graph 4



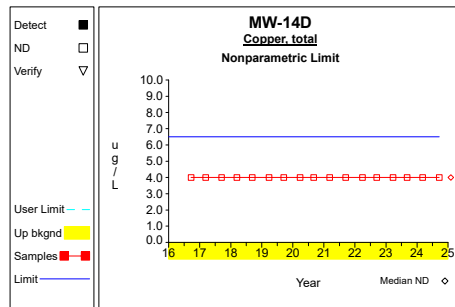
Graph 5



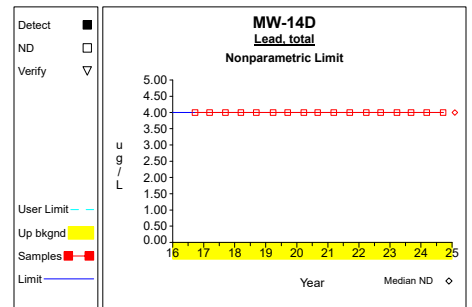
Graph 6



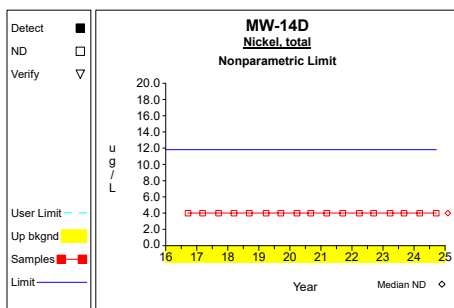
Graph 7



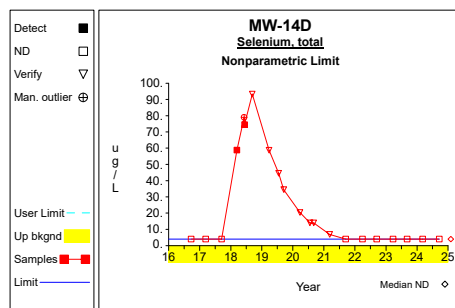
Graph 8



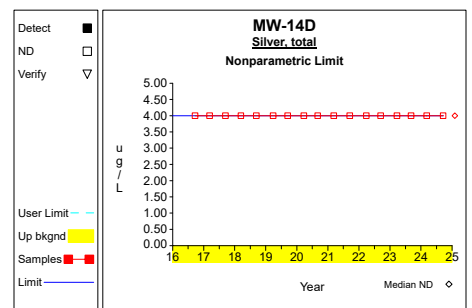
Graph 9



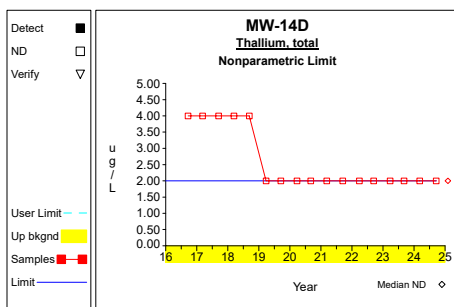
Graph 10



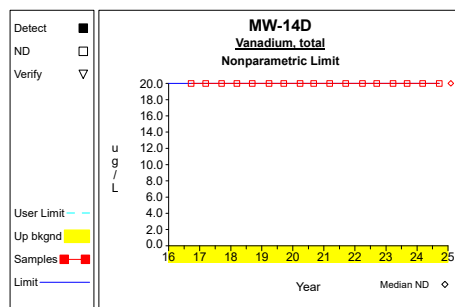
Graph 11



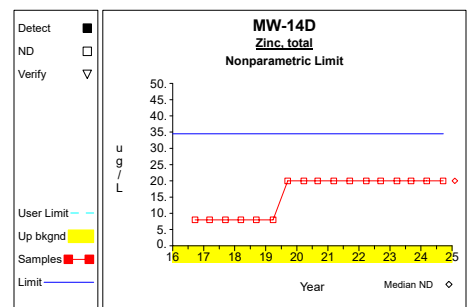
Graph 12



Graph 13

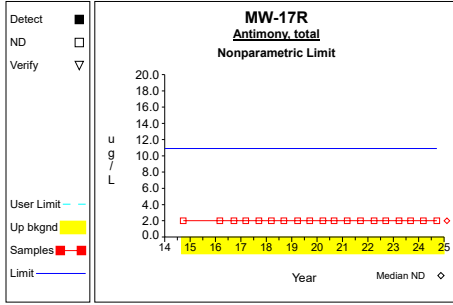


Graph 14

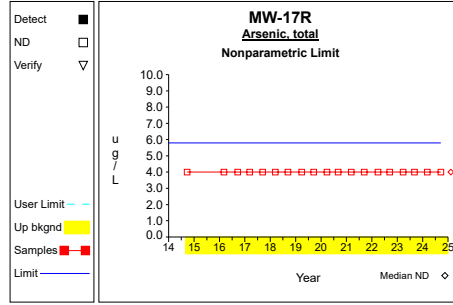


Graph 15

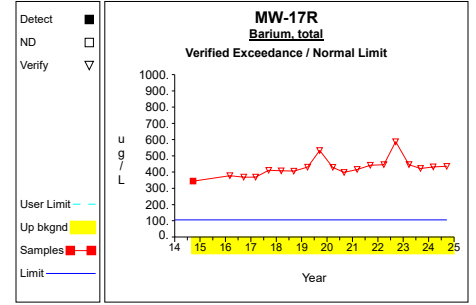
# Up vs. Down Prediction Limits



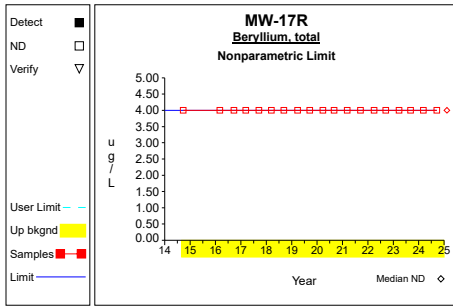
Graph 16



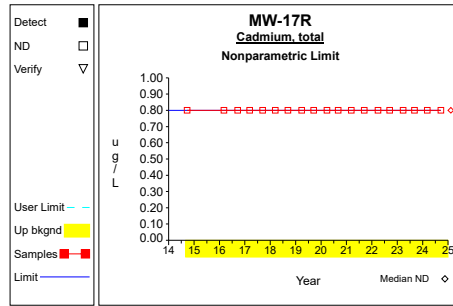
Graph 17



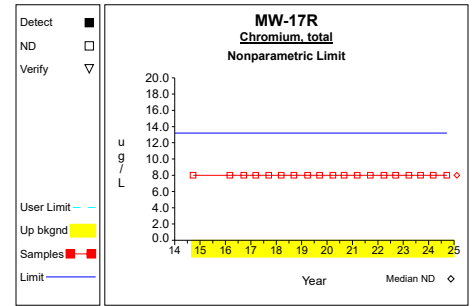
Graph 18



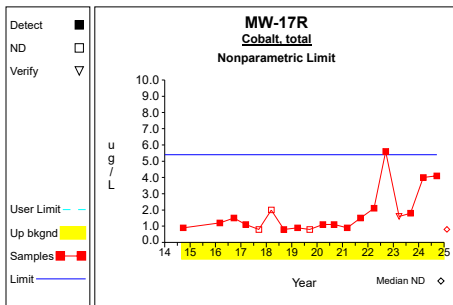
Graph 19



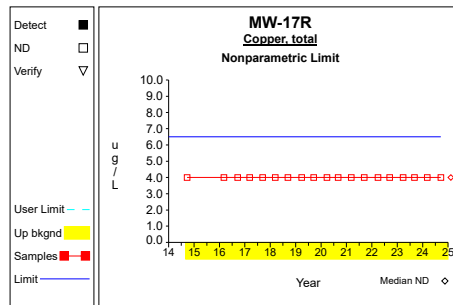
Graph 20



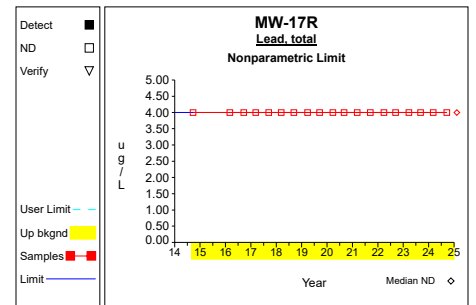
Graph 21



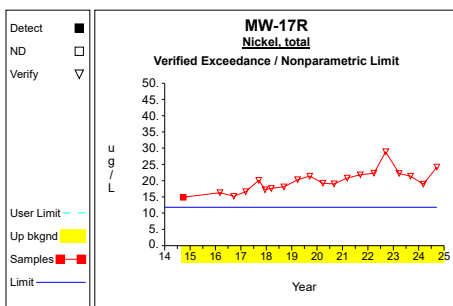
Graph 22



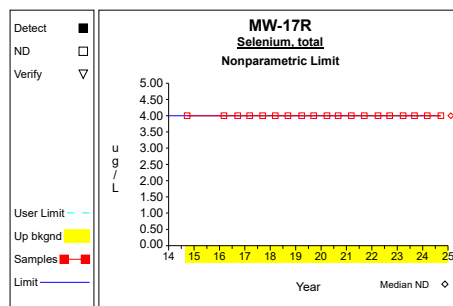
Graph 23



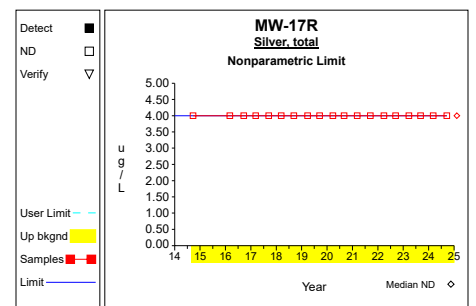
Graph 24



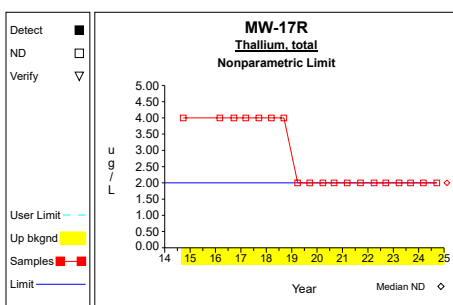
Graph 25



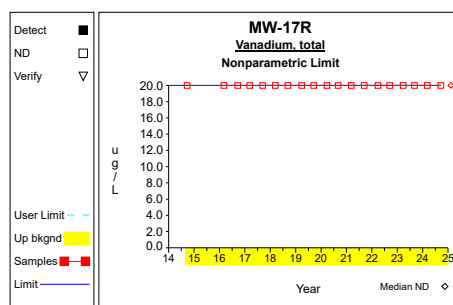
Graph 26



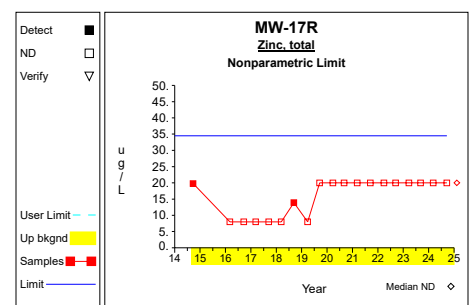
Graph 27



Graph 28

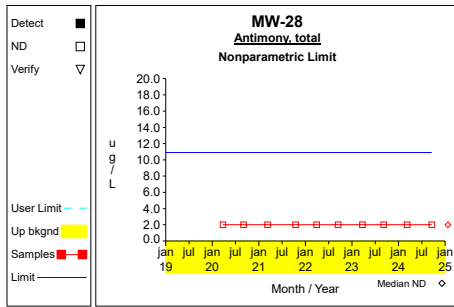


Graph 29

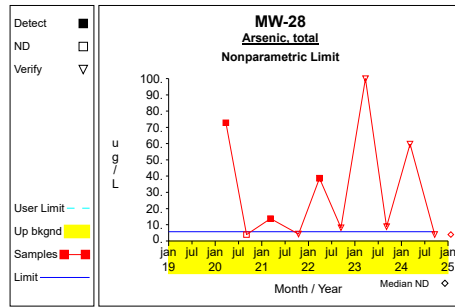


Graph 30

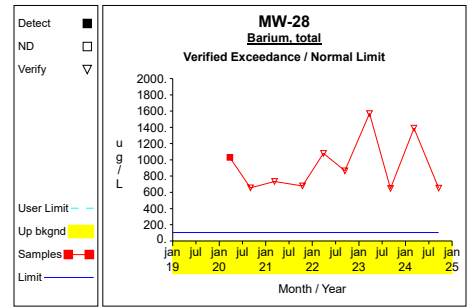
# Up vs. Down Prediction Limits



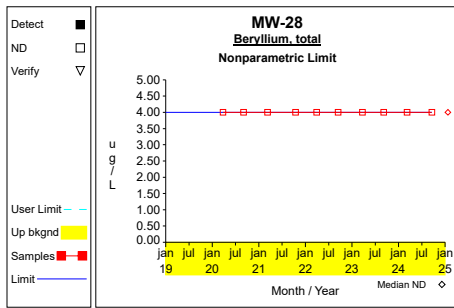
Graph 31



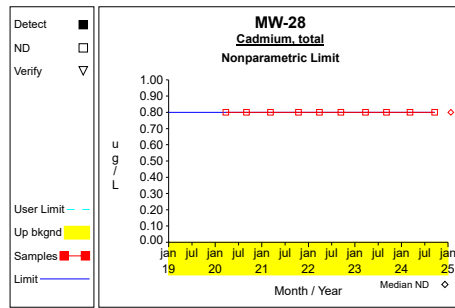
Graph 32



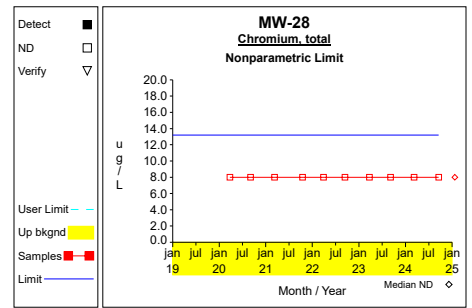
Graph 33



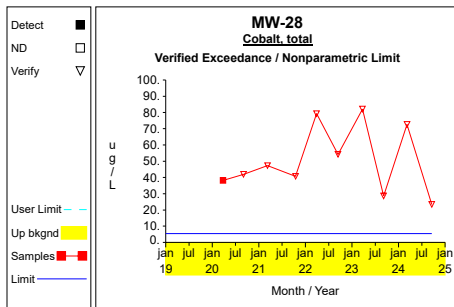
Graph 34



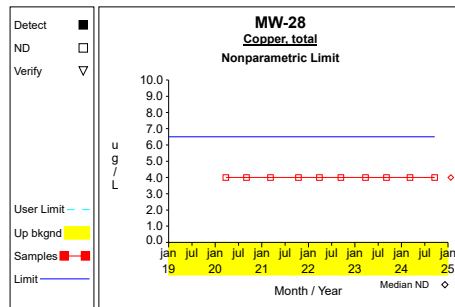
Graph 35



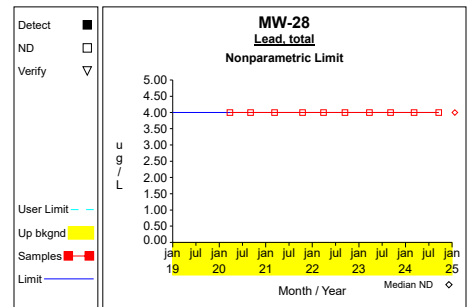
Graph 36



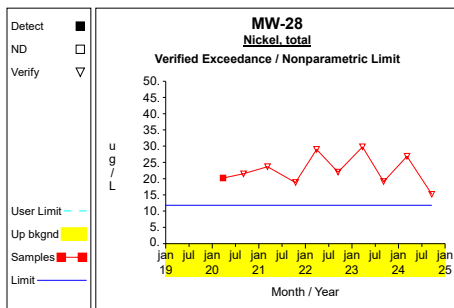
Graph 37



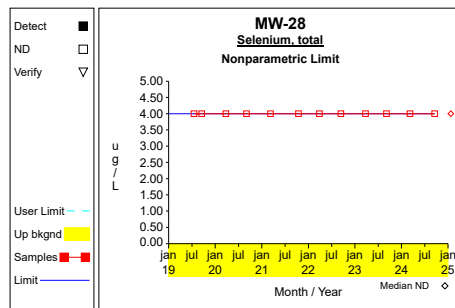
Graph 38



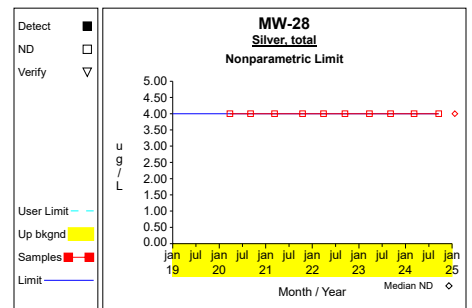
Graph 39



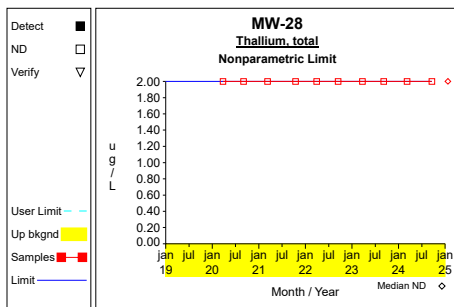
Graph 40



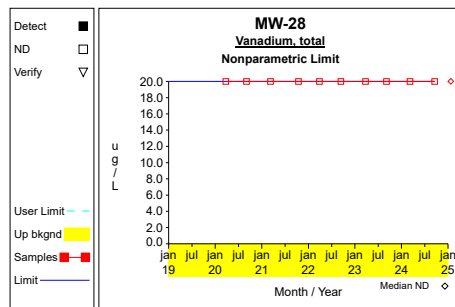
Graph 41



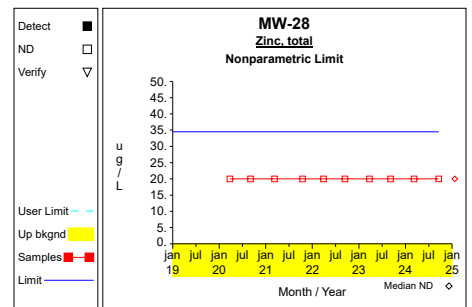
Graph 42



Graph 43

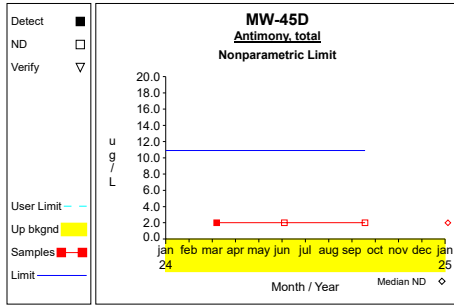


Graph 44

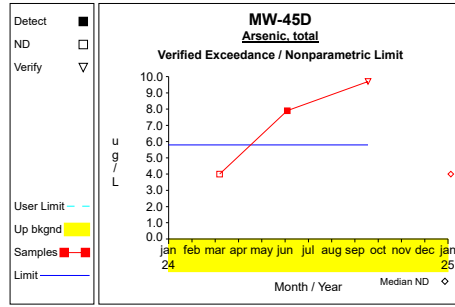


Graph 45

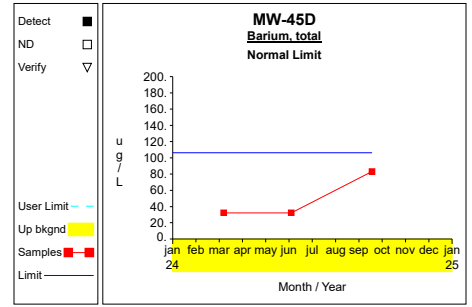
# Up vs. Down Prediction Limits



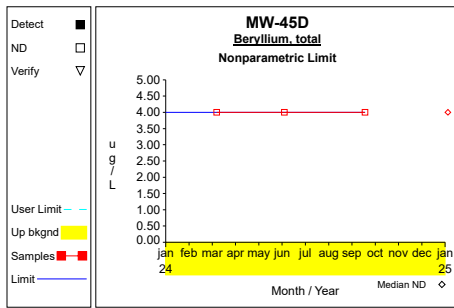
Graph 46



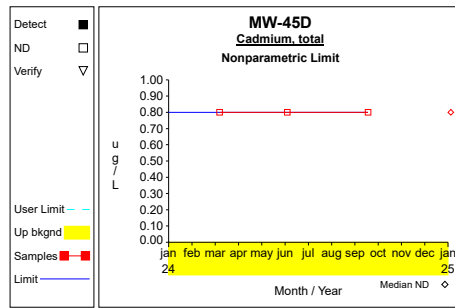
Graph 47



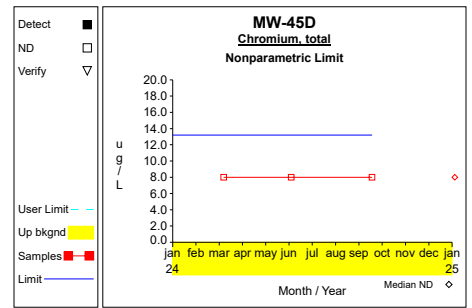
Graph 48



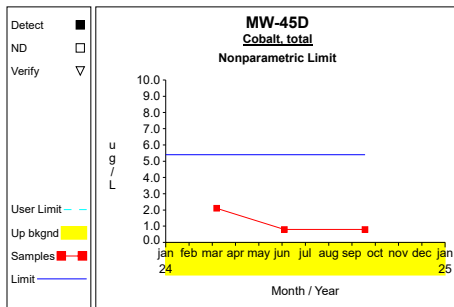
Graph 49



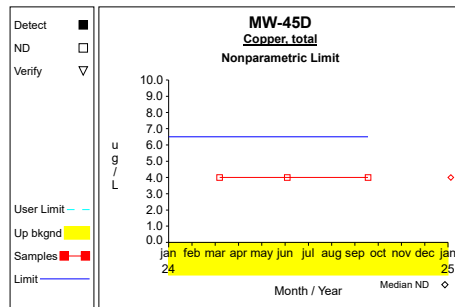
Graph 50



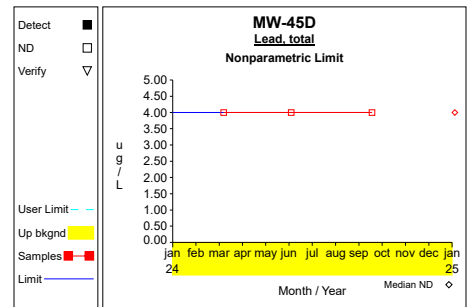
Graph 51



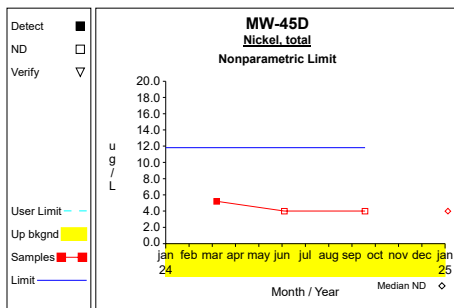
Graph 52



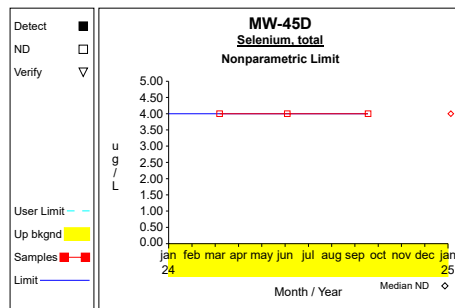
Graph 53



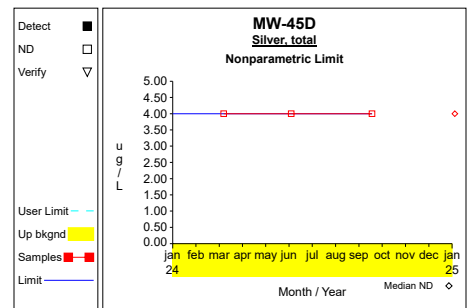
Graph 54



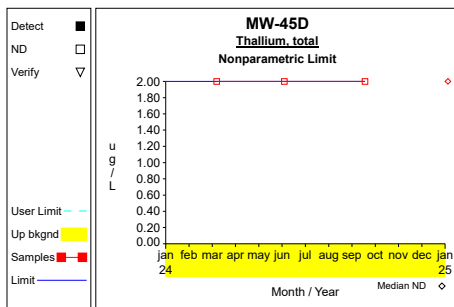
Graph 55



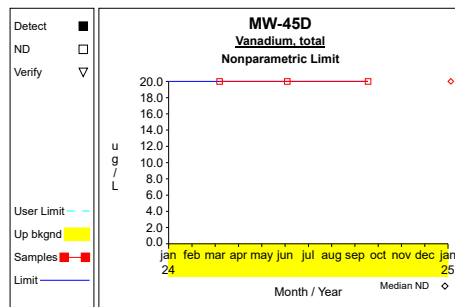
Graph 56



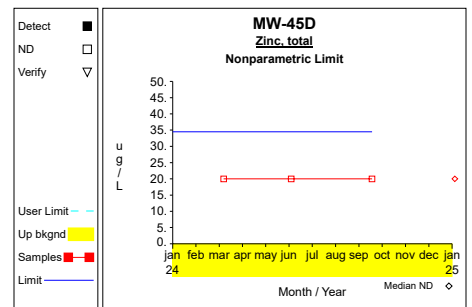
Graph 57



Graph 58

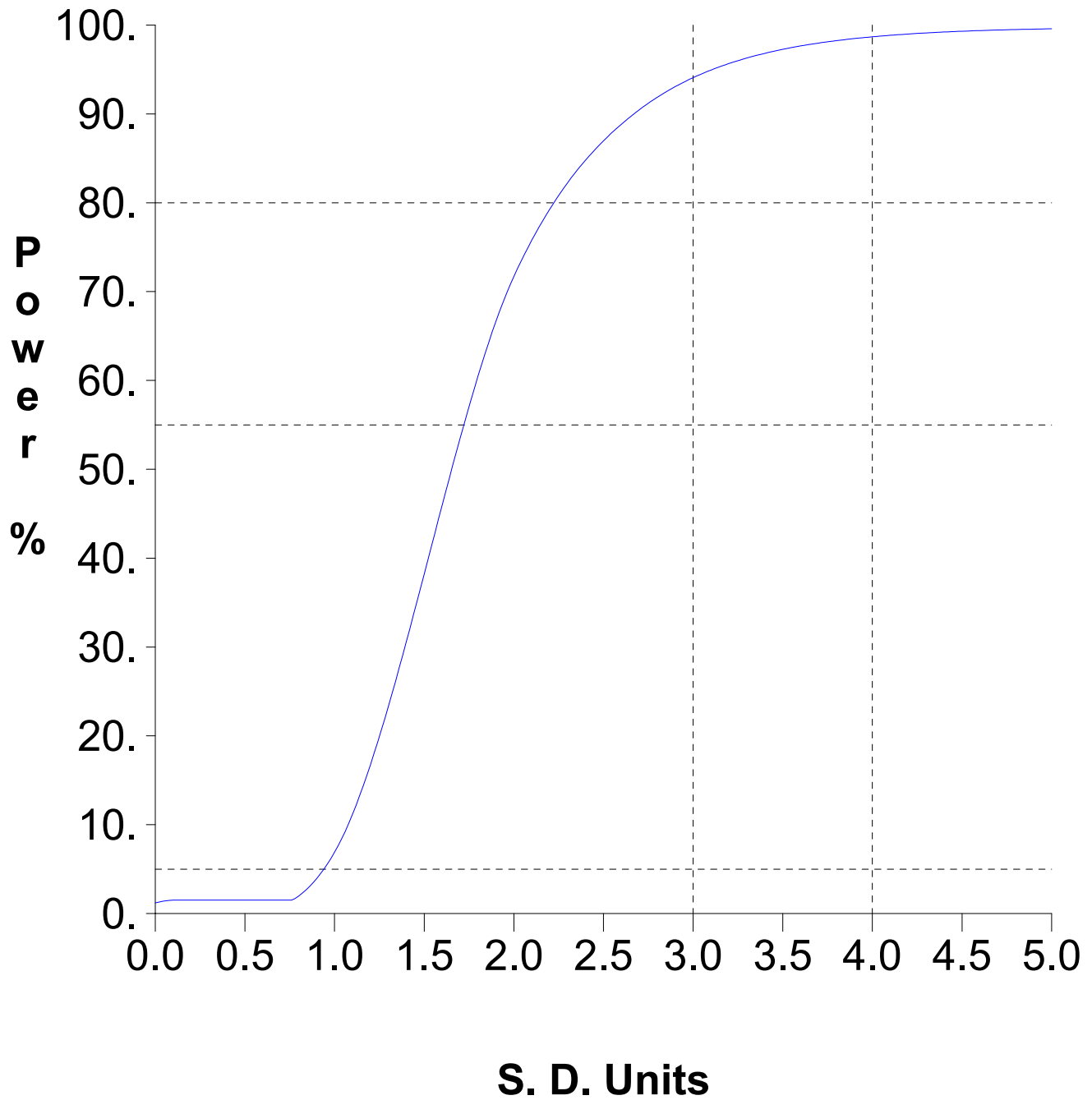


Graph 59



Graph 60

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



**Worksheet 1 - Upgradient vs. Downgradient Comparisons**

**Antimony, total (ug/L)**

**Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$PL = \max(X)$ $= 10.9$	Compute nonparametric prediction limit as largest background measurement.
2	Conf = <b>0.99</b>	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

**Worksheet 1 - Upgradient vs. Downgradient Comparisons**

**Arsenic, total (ug/L)**

**Nonparametric Prediction Limit**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$PL = \max(X)$ $= 5.8$	Compute nonparametric prediction limit as largest background measurement.
2	Conf = <b>0.99</b>	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**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2402.2 / 45$ $= 53.382$	Compute upgradient mean.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((148922.6 - 5.77 \times 10^6 / 45) / (45-1))^{1/2}$ $= 21.684$	Compute upgradient sd.
3	$\alpha = \min[(1-.95^{1/K})^{1/2}, .01]$ $= \min[(1-.95^{1/60})^{1/2}, .01]$ $= 0.01$	Adjusted per comparison false positive rate. Pass initial or 1 resample.
4	$PL = \bar{X} + tS(1+1/N)^{1/2}$ $= 53.382$ $+ (2.414 * 21.684)(1+1/45)^{1/2}$ $= 106.306$	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**

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

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

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

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

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 13.2	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

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

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 5.4	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).



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

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 6.5	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

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

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

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

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 11.8	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

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

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

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

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

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

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

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

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

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

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	PL = max(X) = 34.5	Compute nonparametric prediction limit as largest background measurement.
2	Conf = 0.99	Confidence level is based on N, K and resampling strategy (see Gibbons 1994).

**Attachment E**

Assessment Statistics for Verified Trace Metals  
Deep Ground Water

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-14D	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-14D	4	19.650	2.231	1.176	17.026	22.274	2000.000	dec	
Cobalt, total	ug/L	MW-14D	4	4.550	2.125	1.176	2.050	7.050	2.100		
Nickel, total	ug/L	MW-14D	4	2.000	0.000	1.176	2.000	2.000	100.000		
Arsenic, total	ug/L	MW-17R	4	2.000	0.000	1.176	2.000	2.000	10.000		
Barium, total	ug/L	MW-17R	4	433.750	9.878	1.176	422.130	445.370	2000.000	inc	
Cobalt, total	ug/L	MW-17R	4	2.875	1.360	1.176	1.275	4.475	2.100	inc	
Nickel, total	ug/L	MW-17R	4	21.675	2.193	1.176	19.095	24.255	100.000	inc	
Arsenic, total	ug/L	MW-28	4	43.125	45.528	1.176	0.000	96.679	10.000		
Barium, total	ug/L	MW-28	4	1064.750	485.092	1.176	494.142	1635.358	2000.000		**
Cobalt, total	ug/L	MW-28	4	51.700	29.998	1.176	16.414	86.986	2.100		
Nickel, total	ug/L	MW-28	4	22.750	6.764	1.176	14.794	30.706	100.000		
Arsenic, total	ug/L	MW-45D	3								*
Barium, total	ug/L	MW-45D	3								*
Cobalt, total	ug/L	MW-45D	3								*
Nickel, total	ug/L	MW-45D	3								*

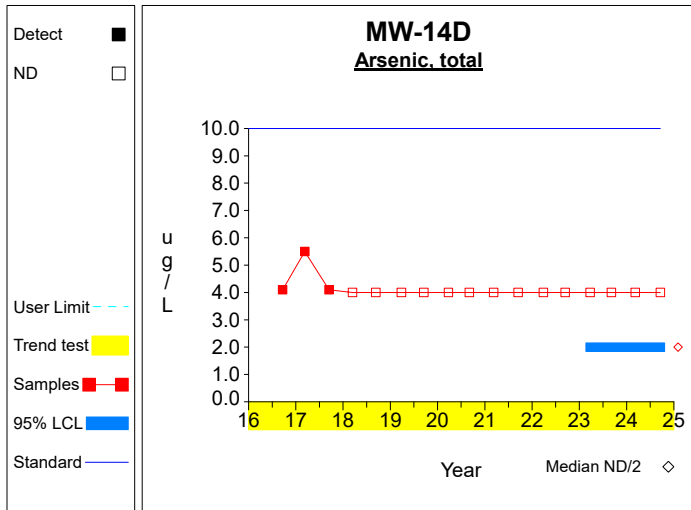
\* - Insufficient Data

\*\* - Significant Exceedance

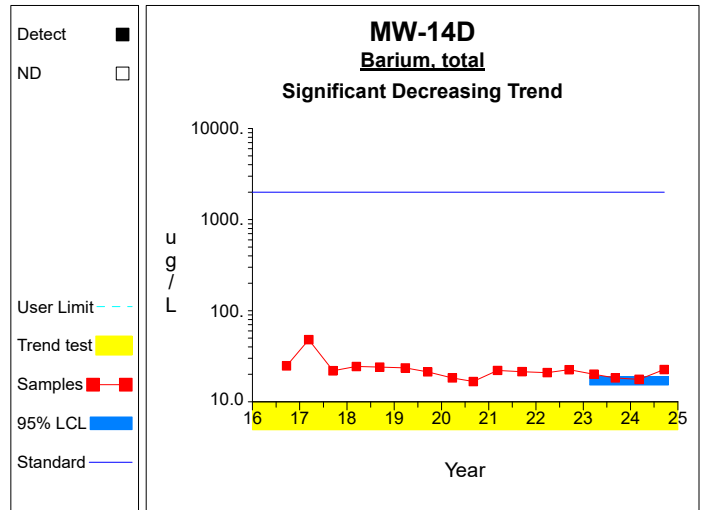
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

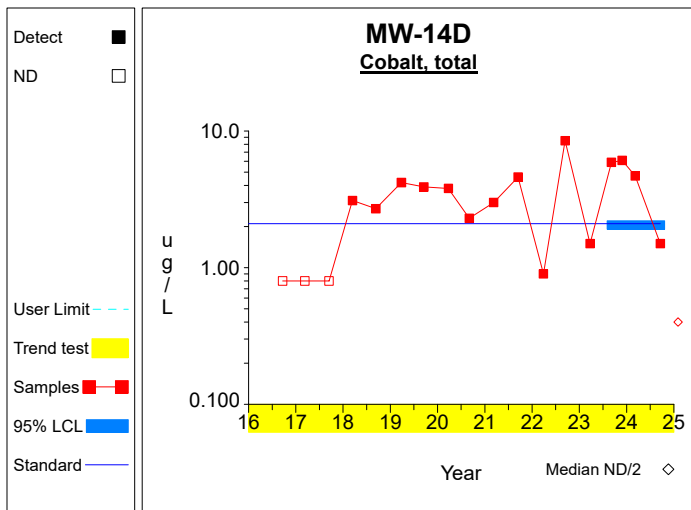
## Confidence Limits (Assessment)



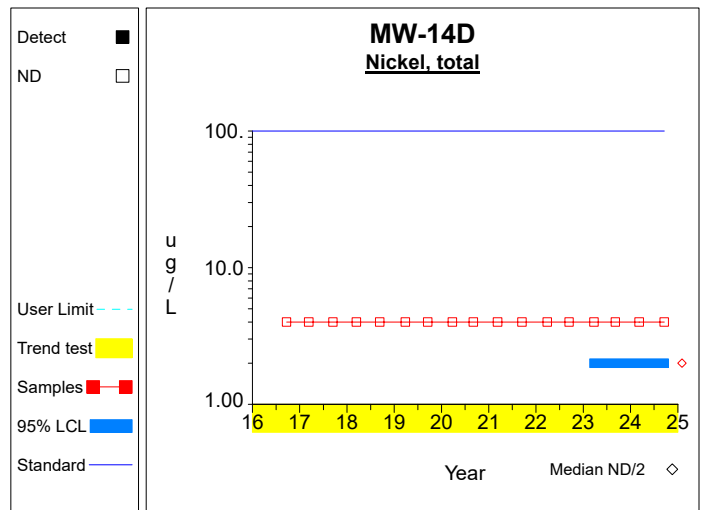
**Graph 1**



**Graph 2**

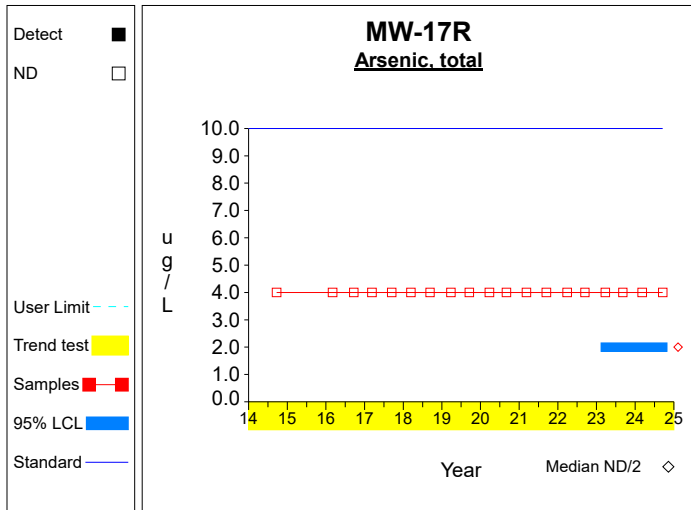


**Graph 3**

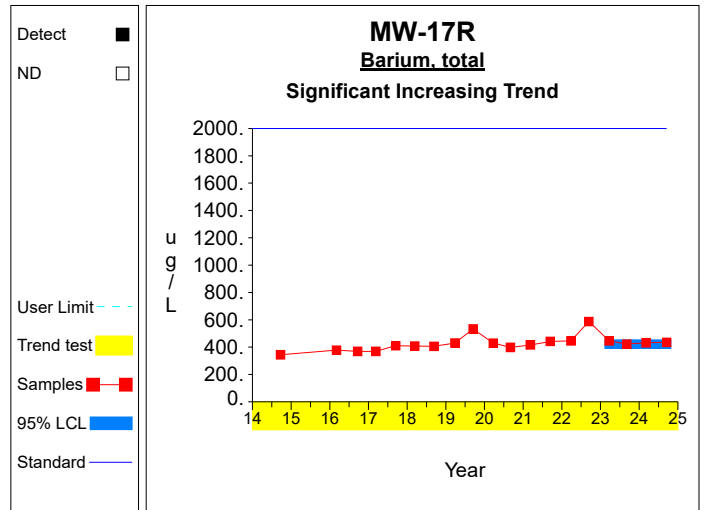


**Graph 4**

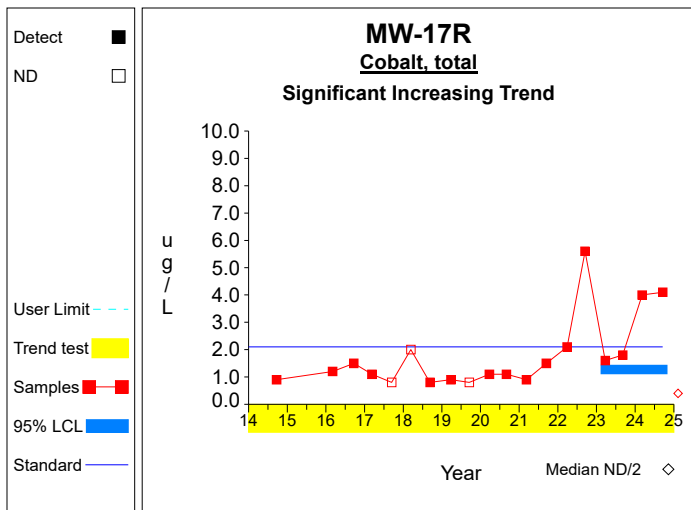
## Confidence Limits (Assessment)



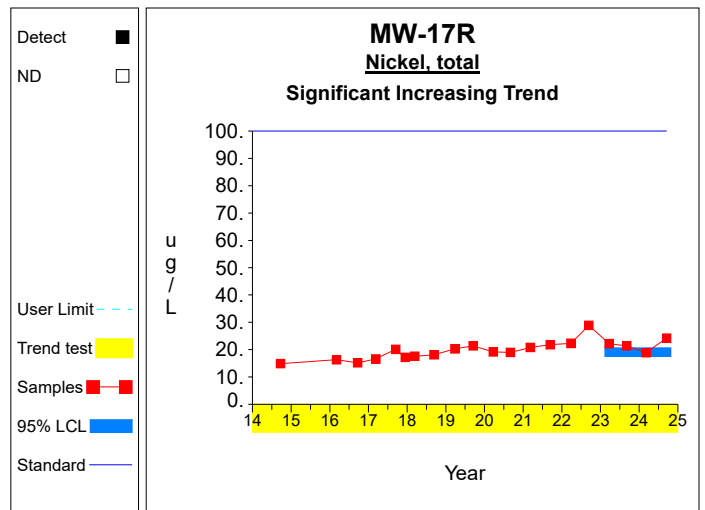
**Graph 5**



**Graph 6**

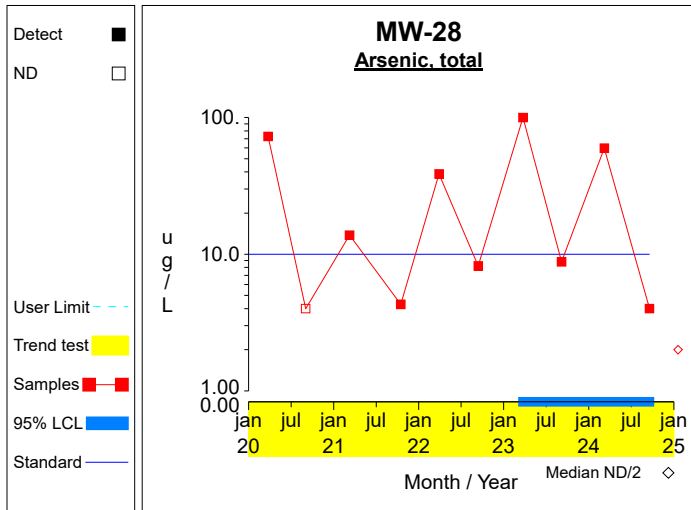


**Graph 7**

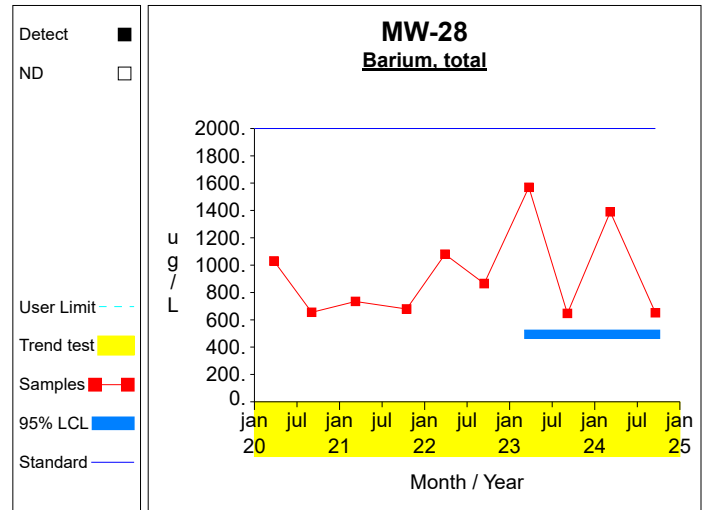


**Graph 8**

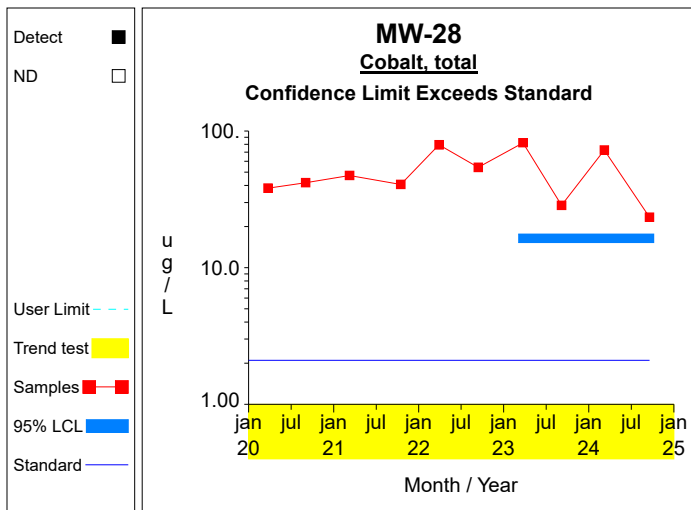
## Confidence Limits (Assessment)



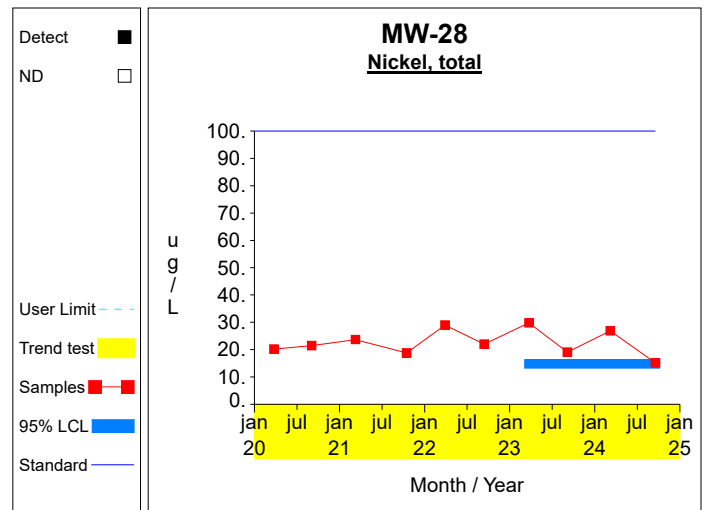
**Graph 9**



**Graph 10**

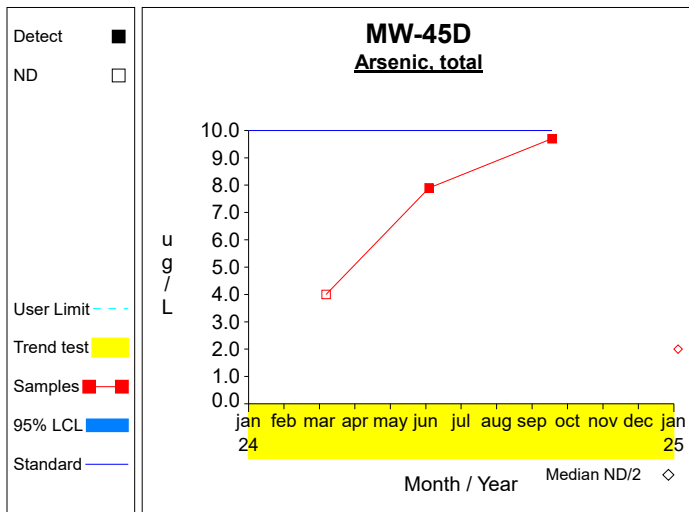


**Graph 11**

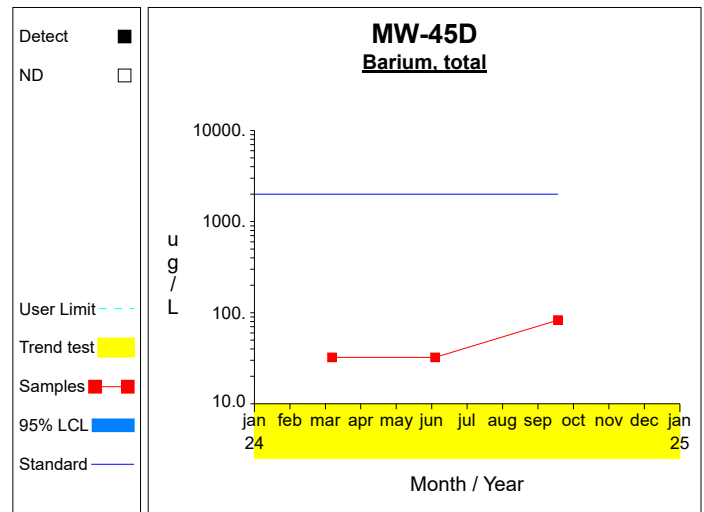


**Graph 12**

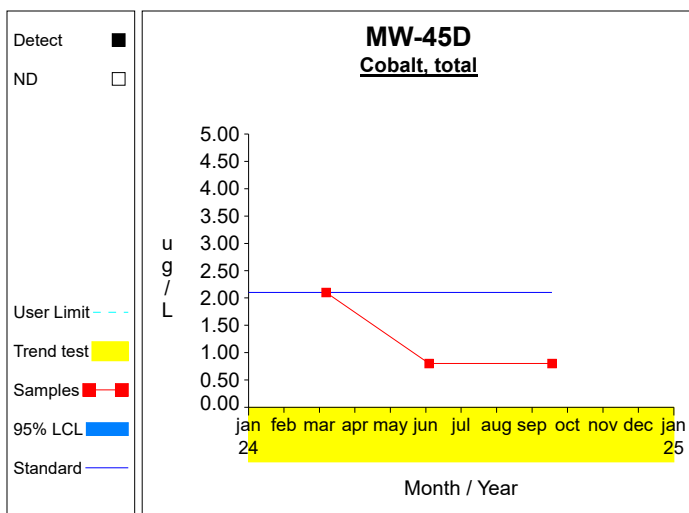
## Confidence Limits (Assessment)



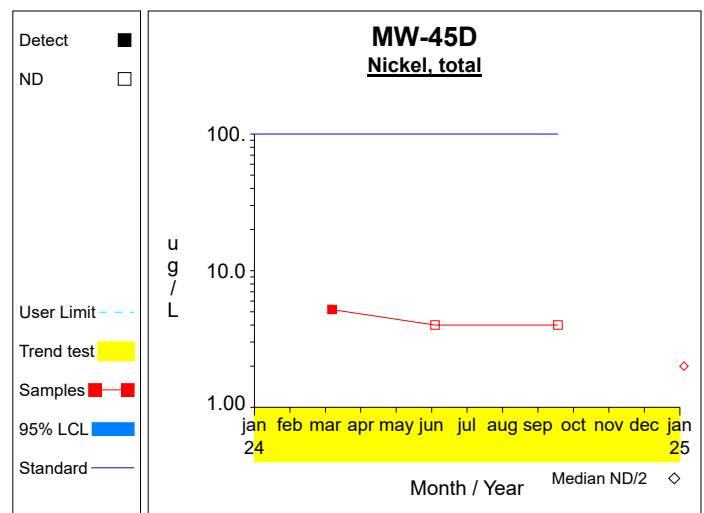
**Graph 13**



**Graph 14**



**Graph 15**



**Graph 16**



**Worksheet 6 - Assessment Monitoring**  
**Arsenic, total (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 17 * (17-1) / 2$ $= 136$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 254.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (136 \pm 2.576 * 254.667^{1/2}) / 2$ $= [ 47.446, 88.554 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 78.6 / 4$ $= 19.65$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1559.42 - 6177.96/4}{4-1} \right)^{1/2}$ $= 2.231$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 19.65 - 2.353 * 2.231/4^{1/2}$ $= 17.026$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 19.65 + 2.353 * 2.231/4^{1/2}$ $= 22.274$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 17 * (17-1) / 2$ $= 136$	Number of sample pairs during trend detection period.
6	$S = -0.851$	Sen's estimator of trend.
7	$\text{var}(S) = 588.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (136 \pm 2.576 * 588.333^{1/2}) / 2$ $= [ 36.759, 99.241 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -1.765, -0.15 ]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	<b>Significant decreasing trend.</b>

**Worksheet 6 - Assessment Monitoring**  
**Cobalt, total (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 18.2 / 4$ $= 4.55$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{96.36 - 331.24/4}{4-1} \right)^{1/2}$ $= 2.125$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.55 - 2.353 * 2.125/4^{1/2}$ $= 2.05$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.55 + 2.353 * 2.125/4^{1/2}$ $= 7.05$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.51$	Sen's estimator of trend.
7	$\text{var}(S) = 692.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 692.333^{1/2}) / 2$ $= [ 42.61, 110.39 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.219, 1.001 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{16.0 - 64.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 17 * (17-1) / 2$ $= 136$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (136 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 68.0, 68.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Arsenic, total (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 0.0^{1/2}) / 2$ $= [85.5, 85.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1735.0 / 4$ $= 433.75$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{752849.0 - 3.01 \times 10^6/4}{4-1} \right)^{1/2}$ $= 9.878$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 433.75 - 2.353 * 9.878/4^{1/2}$ $= 422.13$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 433.75 + 2.353 * 9.878/4^{1/2}$ $= 445.37$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 8.816$	Sen's estimator of trend.
7	$\text{var}(S) = 815.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 815.0^{1/2}) / 2$ $= [ 48.73, 122.27 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 2.664, 15.503 ]$	Two-sided confidence interval for slope.
10	$\text{LCL}(S) > 0$	<b>Significant increasing trend.</b>

**Worksheet 6 - Assessment Monitoring**  
**Cobalt, total (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 11.5 / 4$ $= 2.875$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{38.61 - 132.25/4}{4-1} \right)^{1/2}$ $= 1.36$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.875 - 2.353 * 1.36/4^{1/2}$ $= 1.275$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.875 + 2.353 * 1.36/4^{1/2}$ $= 4.475$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.217$	Sen's estimator of trend.
7	$\text{var}(S) = 805.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 805.0^{1/2}) / 2$ $= [ 48.956, 122.044 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.015, 0.482 ]$	Two-sided confidence interval for slope.
10	$\text{LCL}(S) > 0$	<b>Significant increasing trend.</b>

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 86.7 / 4$ $= 21.675$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1893.65 - 7516.89/4}{4-1} \right)^{1/2}$ $= 2.193$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 21.675 - 2.353 * 2.193/4^{1/2}$ $= 19.095$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 21.675 + 2.353 * 2.193/4^{1/2}$ $= 24.255$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 20 * (20-1) / 2$ $= 190$	Number of sample pairs during trend detection period.
6	$S = 0.901$	Sen's estimator of trend.
7	$\text{var}(S) = 949.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (190 \pm 2.576 * 949.0^{1/2}) / 2$ $= [ 55.322, 134.678 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.499, 1.221 ]$	Two-sided confidence interval for slope.
10	$\text{LCL}(S) > 0$	<b>Significant increasing trend.</b>



**Worksheet 6 - Assessment Monitoring**  
**Arsenic, total (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 172.5 / 4$ $= 43.125$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{13657.53 - 29756.25/4}{4-1} \right)^{1/2}$ $= 45.528$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 43.125 - 2.353 * 45.528/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 43.125 + 2.353 * 45.528/4^{1/2}$ $= 96.679$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 10 * (10-1) / 2$ $= 45$	Number of sample pairs during trend detection period.
6	$S = 0.495$	Sen's estimator of trend.
7	$\text{var}(S) = 125.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (45 \pm 2.576 * 125.0^{1/2}) / 2$ $= [ 8.1, 36.9 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -40.57, 23.589 ]$	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-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 4259.0 / 4$ $= 1064.75$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{5.24 \times 10^6 - 1.81 \times 10^7/4}{4-1} \right)^{1/2}$ $= 485.092$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1064.75 - 2.353 * 485.092/4^{1/2}$ $= 494.142$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1064.75 + 2.353 * 485.092/4^{1/2}$ $= 1635.358$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 10 * (10-1) / 2$ $= 45$	Number of sample pairs during trend detection period.
6	$S = 4.824$	Sen's estimator of trend.
7	$\text{var}(S) = 125.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (45 \pm 2.576 * 125.0^{1/2}) / 2$ $= [ 8.1, 36.9 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -224.851, 324.111 ]$	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-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 206.8 / 4$ $= 51.7$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{13391.22 - 42766.24/4}{4-1} \right)^{1/2}$ $= 29.998$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 51.7 - 2.353 * 29.998/4^{1/2}$ $= 16.414$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 51.7 + 2.353 * 29.998/4^{1/2}$ $= 86.986$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 10 * (10-1) / 2$ $= 45$	Number of sample pairs during trend detection period.
6	$S = 2.839$	Sen's estimator of trend.
7	$\text{var}(S) = 125.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (45 \pm 2.576 * 125.0^{1/2}) / 2$ $= [ 8.1, 36.9 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -14.852, 15.654 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 91.0 / 4$ $= 22.75$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((2207.5 - 8281.0/4) / (4-1))^{1/2}$ $= 6.764$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 22.75 - 2.353 * 6.764/4^{1/2}$ $= 14.794$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 22.75 + 2.353 * 6.764/4^{1/2}$ $= 30.706$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 10 * (10-1) / 2$ $= 45$	Number of sample pairs during trend detection period.
6	$S = 0.159$	Sen's estimator of trend.
7	$\text{var}(S) = 125.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (45 \pm 2.576 * 125.0^{1/2}) / 2$ $= [ 8.1, 36.9 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -3.724, 3.653 ]$	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-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Barium, total (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Cobalt, total (ug/L) at MW-45D**

Insufficient data to perform analysis

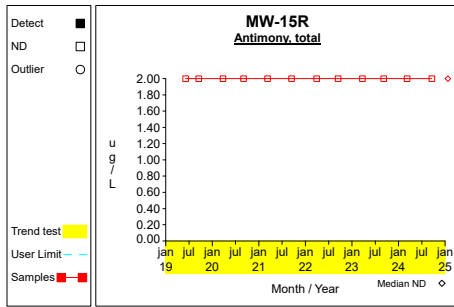
**Worksheet 6 - Assessment Monitoring**  
**Nickel, total (ug/L) at MW-45D**

Insufficient data to perform analysis

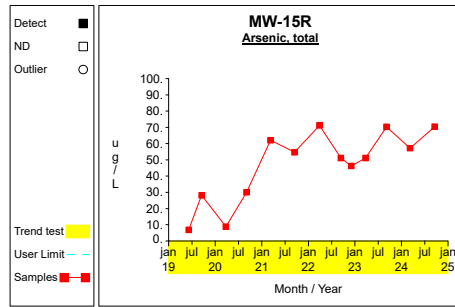
**Attachment F**

Time Series of Trace Metals at Downgradient Attenuation Zone Wells

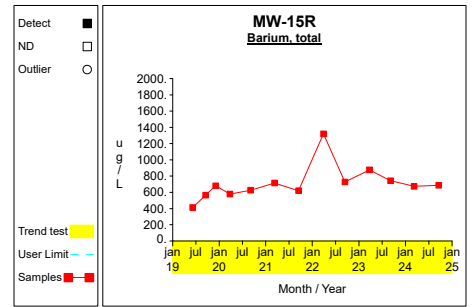
# Time Series



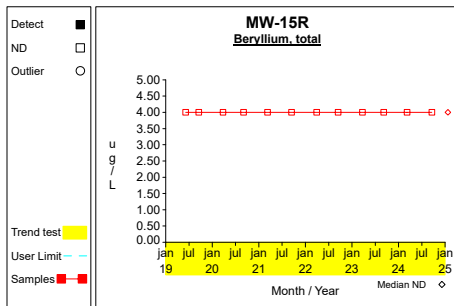
Graph 1



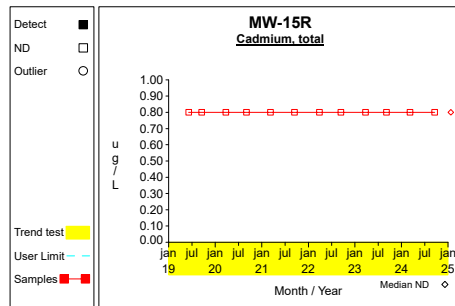
Graph 2



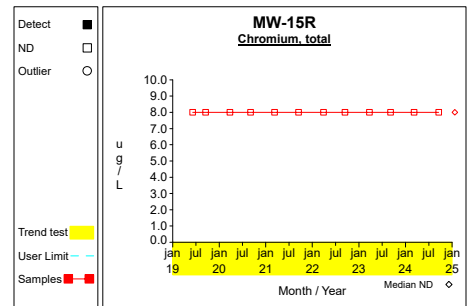
Graph 3



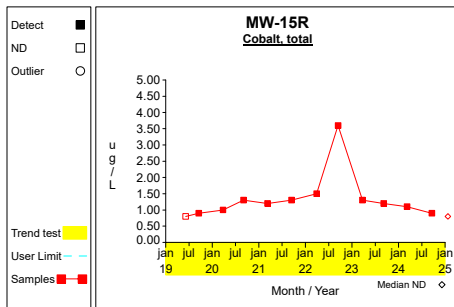
Graph 4



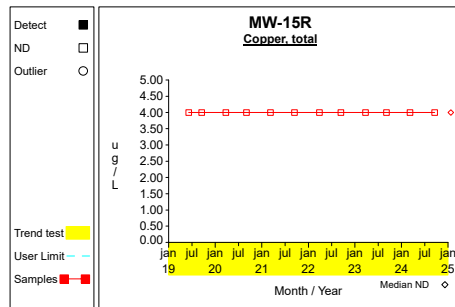
Graph 5



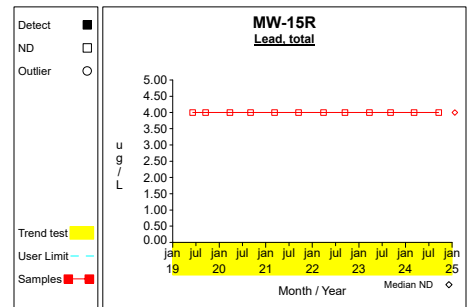
Graph 6



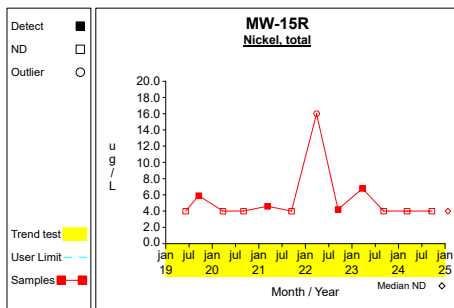
Graph 7



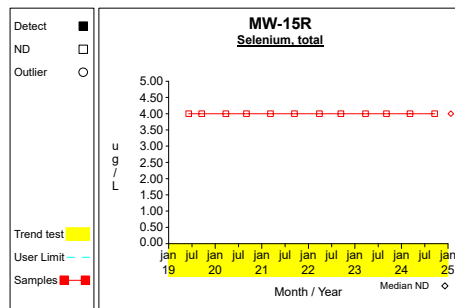
Graph 8



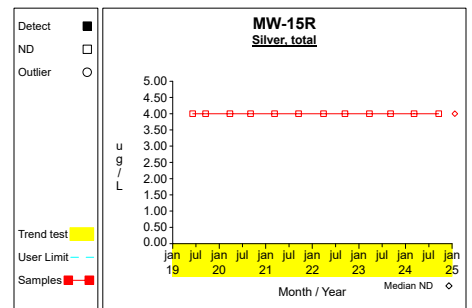
Graph 9



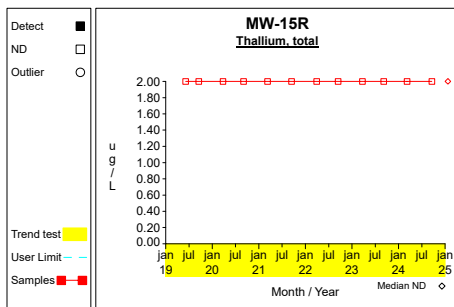
Graph 10



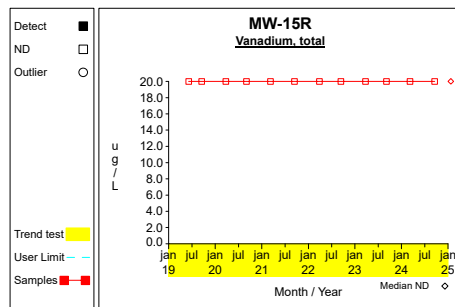
Graph 11



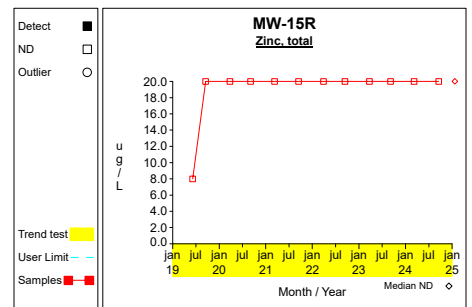
Graph 12



Graph 13

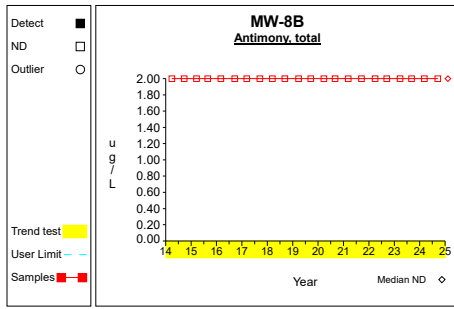


Graph 14

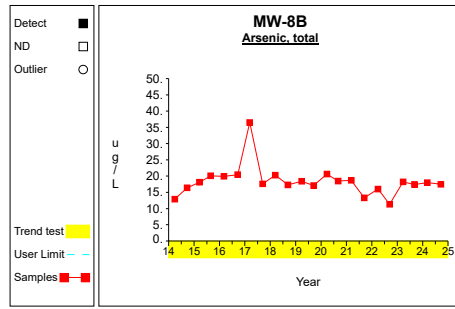


Graph 15

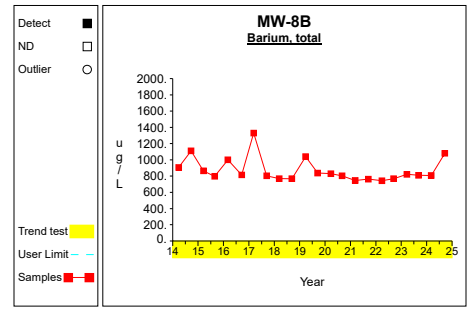
# Time Series



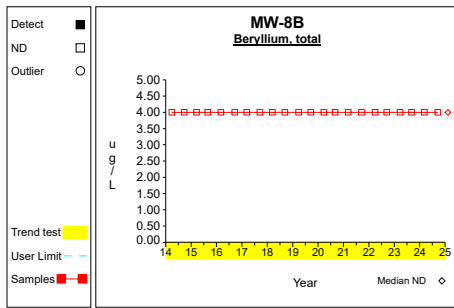
Graph 16



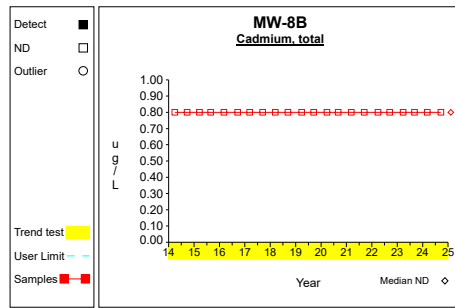
Graph 17



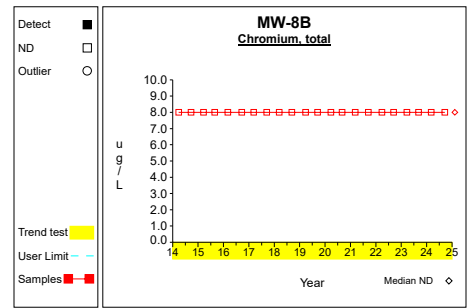
Graph 18



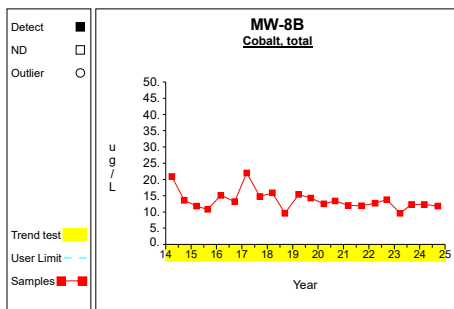
Graph 19



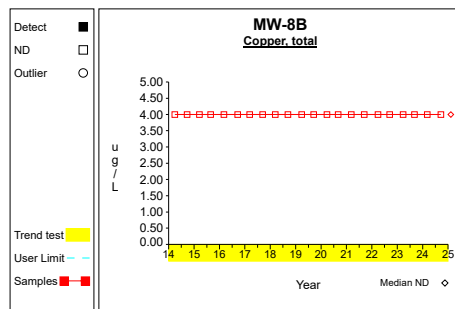
Graph 20



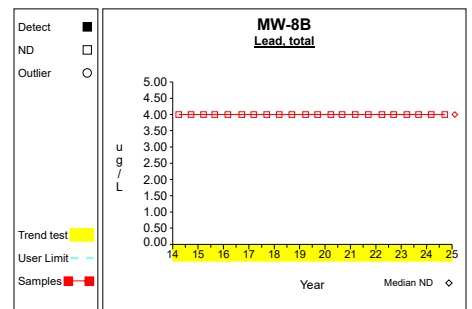
Graph 21



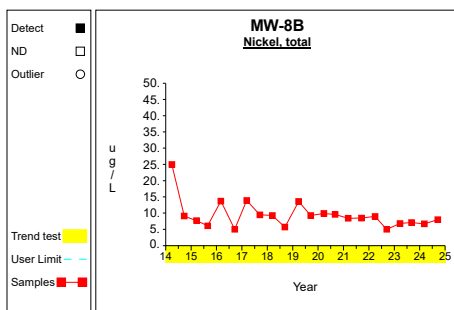
Graph 22



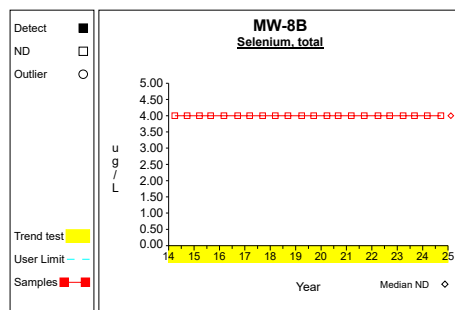
Graph 23



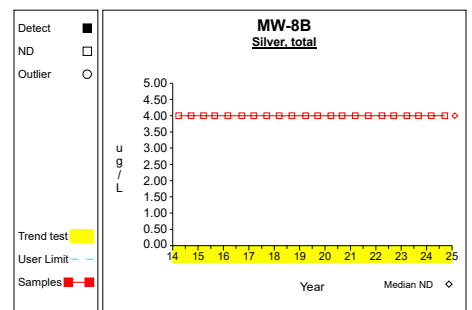
Graph 24



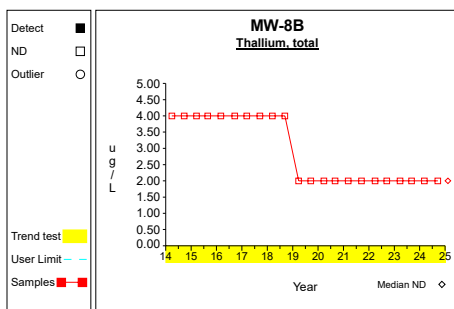
Graph 25



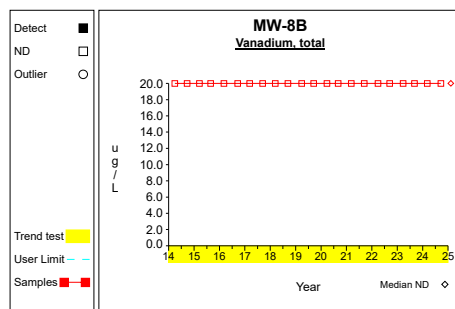
Graph 26



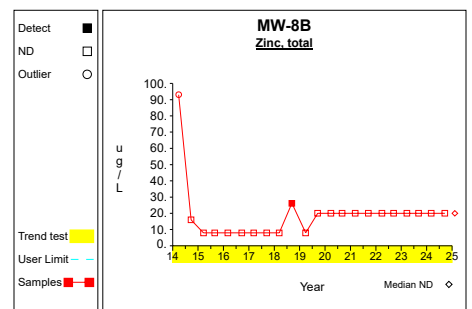
Graph 27



Graph 28



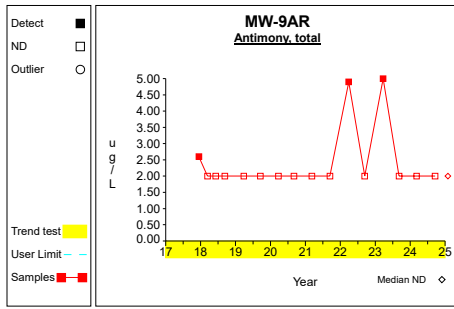
Graph 29



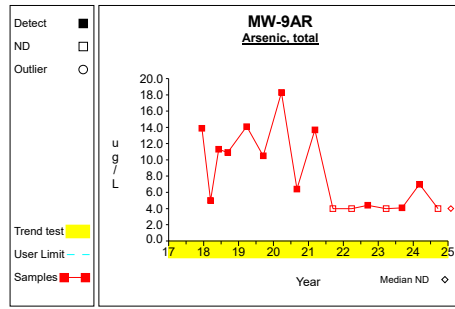
Graph 30



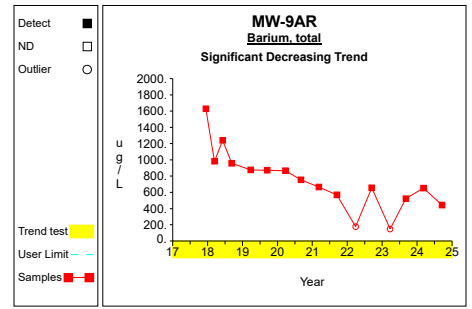
# Time Series



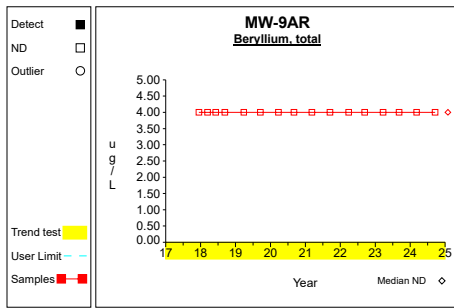
Graph 31



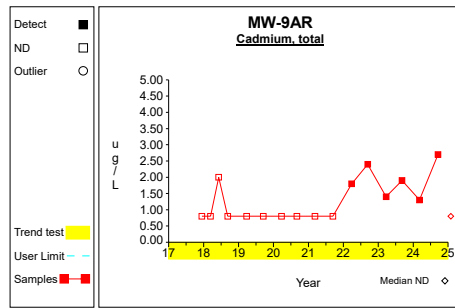
Graph 32



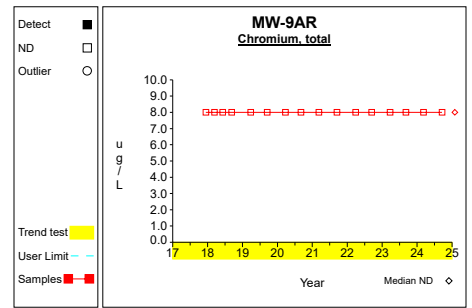
Graph 33



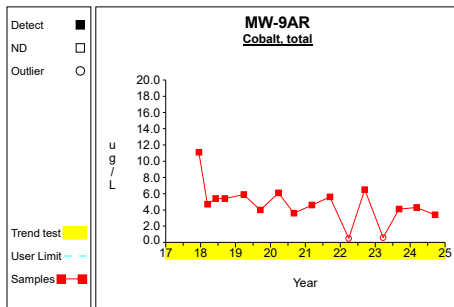
Graph 34



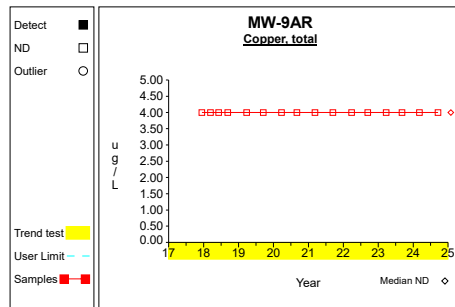
Graph 35



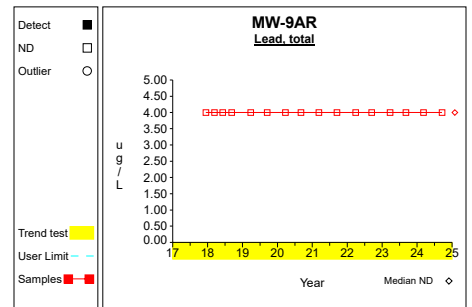
Graph 36



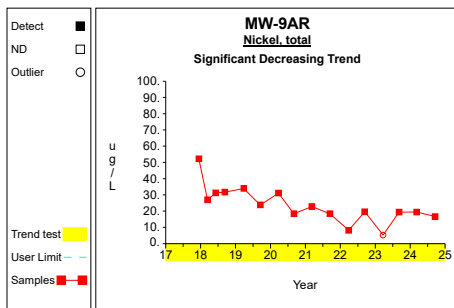
Graph 37



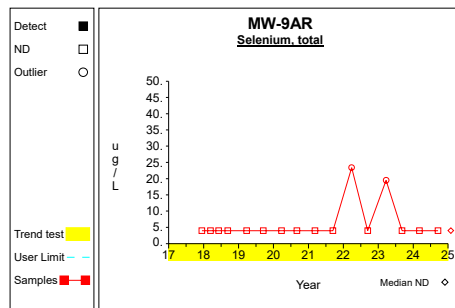
Graph 38



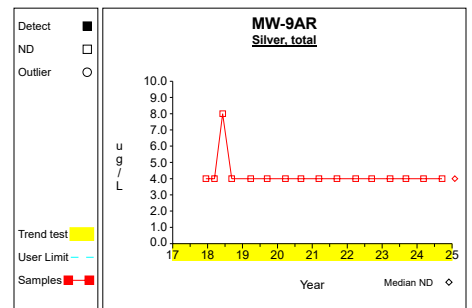
Graph 39



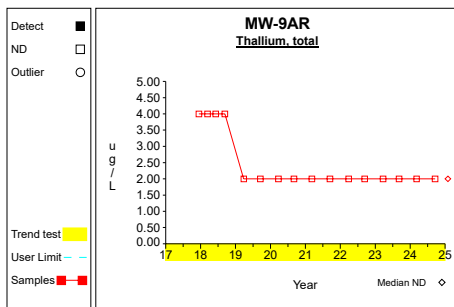
Graph 40



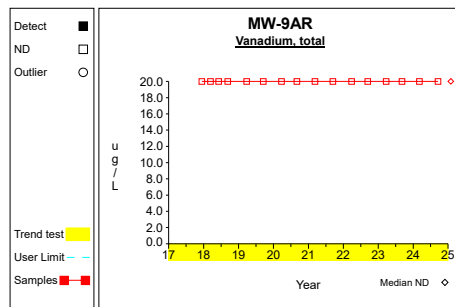
Graph 41



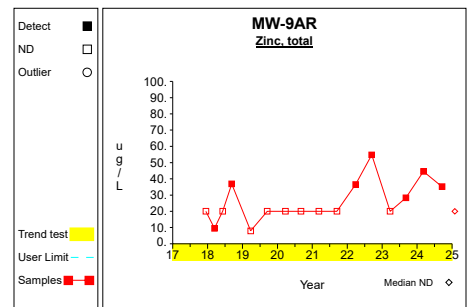
Graph 42



Graph 43



Graph 44



Graph 45

**Attachment G**

Summary of Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,4-dichlorobenzene	L-26	9/02/2020		14.0	1.0	ug/L
1,4-dichlorobenzene	L-26	3/08/2021		8.2	1.0	ug/L
2-butanone (mek)	L-26	9/02/2020		9.4	5.0	ug/L
Acetone	L-26	3/08/2021		13.1	10.0	ug/L
Benzene	L-26	9/02/2020		4.1	1.0	ug/L
Benzene	L-26	3/08/2021		3.3	1.0	ug/L
Chlorobenzene	L-26	9/02/2020		23.9	1.0	ug/L
Chlorobenzene	L-26	3/08/2021		13.3	1.0	ug/L
Ethylbenzene	L-26	9/02/2020		1	1	ug/L
Xylenes, total	L-26	9/02/2020		3.7	2.0	ug/L
Xylenes, total	L-26	3/08/2021		2.6	2.0	ug/L
1,4-dichlorobenzene	LW26	3/28/2022		7.1	1.0	ug/L
1,4-dichlorobenzene	LW26	3/23/2023		5.6	1.0	ug/L
1,4-dichlorobenzene	LW26	4/01/2024		3.7	1.0	ug/L
Benzene	LW26	3/28/2022		2.3	1.0	ug/L
Benzene	LW26	3/23/2023		2.4	1.0	ug/L
Benzene	LW26	4/01/2024		9.7	1.0	ug/L
Chlorobenzene	LW26	3/28/2022		11.5	1.0	ug/L
Chlorobenzene	LW26	3/23/2023		9.2	1.0	ug/L
Chlorobenzene	LW26	4/01/2024		8.2	1.0	ug/L
Toluene	LW26	3/23/2023		1.5	1.0	ug/L
Xylenes, total	LW26	3/23/2023		2.8	2.0	ug/L
Acetone	MW-11C	9/14/2017		14.2	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-14D	3/06/2024		10	6	ug/L
Chloroform	MW-14D	9/24/2014		1.6	1.0	ug/L
Chloroform	MW-14D	12/02/2014		1.5	1.0	ug/L
Chloroform	MW-14D	9/05/2023		1.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-14D	9/24/2014		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-14D	12/02/2014		8.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-14D	3/03/2016		1.4	1.0	ug/L
Acetone	MW-17R	9/14/2017		13.3	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-17R	3/28/2022		13	6	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/23/2014		1.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/18/2015		6.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	8/27/2015		3.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/03/2016		3.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/21/2016		2.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/09/2017		6.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/14/2017		2.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/12/2018		3.5	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/10/2018		2.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/26/2019		3.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/16/2019		4.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/24/2020		4.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/02/2020		3.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/08/2021		3.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/14/2021		4.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/28/2022		4.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/13/2022		3.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/23/2023		2.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/05/2023		3.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	3/06/2024		1.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-17R	9/18/2024		1.6	1.0	ug/L
Trans-1,2-dichloroethylene	MW-17R	3/12/2018		3.3	1.0	ug/L
Acetone	MW-21	9/14/2017		12	10	ug/L
Cis-1,2-dichloroethylene	MW-28	9/24/2014		4.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	12/02/2014		3.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/19/2015		3.5	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	8/27/2015		2.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	12/10/2015		3.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	2/11/2016		5.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/04/2016		14.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	5/10/2016		7.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/20/2016		5.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/09/2017		15.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/14/2017		15.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/12/2018		21.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/10/2018		12.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/26/2019		17.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/16/2019		13.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/24/2020		15.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/02/2020		17.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/08/2021		10.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	10/15/2021		21.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/28/2022		15.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/13/2022		14.1	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
Cis-1,2-dichloroethylene	MW-28	3/23/2023		10.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/05/2023		12.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	3/06/2024		9.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-28	9/18/2024		10.8	1.0	ug/L
Trans-1,2-dichloroethylene	MW-28	3/12/2018		20.2	1.0	ug/L
Trans-1,2-dichloroethylene	MW-28	9/02/2020		1.1	1.0	ug/L
Vinyl chloride	MW-28	3/04/2016		1.4	1.0	ug/L
Vinyl chloride	MW-28	3/09/2017		1.8	1.0	ug/L
Vinyl chloride	MW-28	9/14/2017		1.1	1.0	ug/L
Vinyl chloride	MW-28	3/12/2018		2.0	1.0	ug/L
Vinyl chloride	MW-28	3/26/2019		1.4	1.0	ug/L
Vinyl chloride	MW-28	9/02/2020		1.5	1.0	ug/L
Vinyl chloride	MW-28	10/15/2021		1.6	1.0	ug/L
Vinyl chloride	MW-28	3/28/2022		1.5	1.0	ug/L
Vinyl chloride	MW-28	3/23/2023		1.2	1.0	ug/L
Vinyl chloride	MW-28	9/18/2024		1.3	1.0	ug/L
Chlorobenzene	MW-32	3/03/2016		1.8	1.0	ug/L
Chlorobenzene	MW-32	9/20/2016		1.6	1.0	ug/L
Chlorobenzene	MW-32	3/09/2017		2.7	1.0	ug/L
Chlorobenzene	MW-32	9/14/2017		2.7	1.0	ug/L
Chlorobenzene	MW-32	3/12/2018		3.9	1.0	ug/L
Chlorobenzene	MW-32	9/10/2018		1.7	1.0	ug/L
Chlorobenzene	MW-32	3/26/2019		1.1	1.0	ug/L
Chlorobenzene	MW-32	9/16/2019		3.0	1.0	ug/L
Chlorobenzene	MW-32	3/24/2020		2.8	1.0	ug/L
Chlorobenzene	MW-32	9/02/2020		2.0	1.0	ug/L
Chlorobenzene	MW-32	3/08/2021		1.2	1.0	ug/L
Chlorobenzene	MW-32	3/28/2022		2.5	1.0	ug/L
Chlorobenzene	MW-32	3/06/2024		2.2	1.0	ug/L
Chloromethane	MW-32	9/14/2017		1.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/24/2014		2.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/19/2015		2.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/03/2016		2.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/20/2016		1.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/09/2017		2.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/14/2017		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/26/2019		1.6	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	9/16/2019		2.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/24/2020		1.5	1.0	ug/L
Cis-1,2-dichloroethylene	MW-32	3/28/2022		1.0	1.0	ug/L
Vinyl chloride	MW-32	9/24/2014		2.1	1.0	ug/L
Vinyl chloride	MW-32	3/19/2015		2.2	1.0	ug/L
Vinyl chloride	MW-32	3/03/2016		1.8	1.0	ug/L
Vinyl chloride	MW-32	3/09/2017		1.2	1.0	ug/L
Acetone	MW-44	7/12/2023		11.1	10.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-44	3/06/2024		14	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-44	9/18/2024		10	6	ug/L
Toluene	MW-44	9/05/2023		2.2	1.0	ug/L
Acetone	MW-45D	9/18/2024		38.2	10.0	ug/L
Acetone	MW-8B	9/20/2013		11.7	10.0	ug/L
Acetone	MW-8B	3/23/2023		12.2	10.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	4/22/2009		1.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	1/27/2010		1.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	3/19/2010		1.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	9/14/2010		1.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-8B	3/28/2014		1.1	1.0	ug/L
Trichloroethylene	MW-8B	7/21/1992		2.10	.17	ug/L
Trichloroethylene	MW-8B	10/21/1992		2.10	.17	ug/L
1,1-dichloroethane	MW-9AR	12/13/2017		2.1	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/12/2018		2.1	1.0	ug/L
1,1-dichloroethane	MW-9AR	6/06/2018		1.6	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/10/2018		1.9	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/26/2019		1.7	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/16/2019		1.5	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/24/2020		1.5	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/02/2020		1.4	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/08/2021		1.4	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/14/2021		1.4	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/28/2022		1.3	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/13/2022		1.2	1.0	ug/L
1,1-dichloroethane	MW-9AR	9/05/2023		1.5	1.0	ug/L
1,1-dichloroethane	MW-9AR	3/06/2024		1.3	1.0	ug/L
1,2-dichloropropane	MW-9AR	3/12/2018		1.1	1.0	ug/L
1,2-dichloropropane	MW-9AR	9/14/2021		1.0	1.0	ug/L
1,2-dichloropropane	MW-9AR	3/28/2022		1.4	1.0	ug/L
1,2-dichloropropane	MW-9AR	3/23/2023		1.3	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
1,2-dichloropropane	MW-9AR	3/06/2024		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	6/06/2018		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	9/10/2018		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	3/26/2019		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-9AR	3/06/2024		1.0	1.0	ug/L
Benzene	MW-9AR	12/13/2017		2.4	1.0	ug/L
Benzene	MW-9AR	3/12/2018		2.6	1.0	ug/L
Benzene	MW-9AR	6/06/2018		2.8	1.0	ug/L
Benzene	MW-9AR	9/10/2018		3.2	1.0	ug/L
Benzene	MW-9AR	3/26/2019		2.0	1.0	ug/L
Benzene	MW-9AR	9/16/2019		1.6	1.0	ug/L
Benzene	MW-9AR	3/24/2020		1.5	1.0	ug/L
Benzene	MW-9AR	9/02/2020		2.0	1.0	ug/L
Benzene	MW-9AR	3/08/2021		1.4	1.0	ug/L
Benzene	MW-9AR	9/14/2021		1.2	1.0	ug/L
Benzene	MW-9AR	9/13/2022		2.1	1.0	ug/L
Benzene	MW-9AR	9/05/2023		2.0	1.0	ug/L
Benzene	MW-9AR	3/06/2024		2.4	1.0	ug/L
Benzene	MW-9AR	9/18/2024		1.5	1.0	ug/L
Carbon disulfide	MW-9AR	3/24/2020		1.2	1.0	ug/L
Chlorobenzene	MW-9AR	12/13/2017		1.7	1.0	ug/L
Chlorobenzene	MW-9AR	3/12/2018		1.5	1.0	ug/L
Chlorobenzene	MW-9AR	6/06/2018		4.4	1.0	ug/L
Chlorobenzene	MW-9AR	9/10/2018		4.7	1.0	ug/L
Chlorobenzene	MW-9AR	3/26/2019		4.3	1.0	ug/L
Chlorobenzene	MW-9AR	9/16/2019		5.5	1.0	ug/L
Chlorobenzene	MW-9AR	3/24/2020		3.8	1.0	ug/L
Chlorobenzene	MW-9AR	9/02/2020		5.9	1.0	ug/L
Chlorobenzene	MW-9AR	3/08/2021		3.6	1.0	ug/L
Chlorobenzene	MW-9AR	9/14/2021		3.4	1.0	ug/L
Chlorobenzene	MW-9AR	9/13/2022		3.0	1.0	ug/L
Chlorobenzene	MW-9AR	9/05/2023		5.8	1.0	ug/L
Chlorobenzene	MW-9AR	3/06/2024		5.8	1.0	ug/L
Chlorobenzene	MW-9AR	9/18/2024		4.3	1.0	ug/L
Chloroethane	MW-9AR	9/10/2018		2.6	1.0	ug/L
Chloroethane	MW-9AR	3/26/2019		1.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	12/13/2017		120.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/12/2018		94.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	6/06/2018		58.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/10/2018		69.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/26/2019		58.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/16/2019		82.7	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/24/2020		70.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/02/2020		83.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/08/2021		99.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/14/2021		102.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/28/2022		148.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/13/2022		88.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/23/2023		70.0	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/05/2023		70.8	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	3/06/2024		58.9	1.0	ug/L
Cis-1,2-dichloroethylene	MW-9AR	9/18/2024		43.6	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	12/13/2017		6.8	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/12/2018		86.4	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	6/06/2018		4.2	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/10/2018		5.3	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/26/2019		3.3	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/16/2019		4.5	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/24/2020		4.3	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/02/2020		5.8	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/08/2021		4.4	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/14/2021		4.0	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/28/2022		4.6	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/13/2022		6.8	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/23/2023		4.4	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/05/2023		5.0	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	3/06/2024		5.1	1.0	ug/L
Trans-1,2-dichloroethylene	MW-9AR	9/18/2024		4.0	1.0	ug/L
Trichloroethylene	MW-9AR	3/12/2018		1.7	1.0	ug/L
Trichloroethylene	MW-9AR	6/06/2018		1.3	1.0	ug/L
Trichloroethylene	MW-9AR	9/10/2018		1.3	1.0	ug/L
Trichloroethylene	MW-9AR	3/26/2019		1.9	1.0	ug/L
Trichloroethylene	MW-9AR	3/24/2020		1.4	1.0	ug/L
Trichloroethylene	MW-9AR	9/02/2020		1.9	1.0	ug/L
Trichloroethylene	MW-9AR	3/08/2021		2.2	1.0	ug/L
Trichloroethylene	MW-9AR	9/14/2021		2.7	1.0	ug/L

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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Trichloroethylene	MW-9AR	3/28/2022		9.0	1.0	ug/L
Trichloroethylene	MW-9AR	9/13/2022		1.7	1.0	ug/L
Trichloroethylene	MW-9AR	3/23/2023		7.4	1.0	ug/L
Trichloroethylene	MW-9AR	9/05/2023		2.4	1.0	ug/L
Trichloroethylene	MW-9AR	3/06/2024		1.7	1.0	ug/L
Trichloroethylene	MW-9AR	9/18/2024		2.1	1.0	ug/L
Vinyl chloride	MW-9AR	12/13/2017		19.7	1.0	ug/L
Vinyl chloride	MW-9AR	3/12/2018		31.5	1.0	ug/L
Vinyl chloride	MW-9AR	6/06/2018		39.2	1.0	ug/L
Vinyl chloride	MW-9AR	9/10/2018		50.7	1.0	ug/L
Vinyl chloride	MW-9AR	3/26/2019		24.7	1.0	ug/L
Vinyl chloride	MW-9AR	9/16/2019		27.6	1.0	ug/L
Vinyl chloride	MW-9AR	3/24/2020		30.4	1.0	ug/L
Vinyl chloride	MW-9AR	9/02/2020		33.5	1.0	ug/L
Vinyl chloride	MW-9AR	3/08/2021		24.4	1.0	ug/L
Vinyl chloride	MW-9AR	9/14/2021		24.1	1.0	ug/L
Vinyl chloride	MW-9AR	3/28/2022		1.4	1.0	ug/L
Vinyl chloride	MW-9AR	9/13/2022		39.3	1.0	ug/L
Vinyl chloride	MW-9AR	3/23/2023		1.2	1.0	ug/L
Vinyl chloride	MW-9AR	9/05/2023		32.8	1.0	ug/L
Vinyl chloride	MW-9AR	3/06/2024		45.1	1.0	ug/L
Vinyl chloride	MW-9AR	9/18/2024		28.2	1.0	ug/L
Cis-1,2-dichloroethylene	SW-1	9/16/2019		1.2	1.0	ug/L
Acetone	SW-101	9/14/2017		13.7	10.0	ug/L
Bis(2-ethylhexyl) phthalate	SW-101	3/09/2017		25	8	ug/L
Acetone	SW-102	9/14/2017		12.3	10.0	ug/L
Cis-1,2-dichloroethylene	SW-102	9/26/2011		2	1	ug/L
Acetone	SW-103	9/14/2017		16.6	10.0	ug/L
Cis-1,2-dichloroethylene	SW-103	9/24/2014		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	12/02/2014		6.8	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/19/2015		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/04/2016		25.2	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	5/10/2016		6.6	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/09/2017		1.7	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	9/14/2017		2.2	1.0	ug/L
Cis-1,2-dichloroethylene	SW-103	3/12/2018		4.5	1.0	ug/L
Vinyl chloride	SW-103	12/02/2014		11.5	1.0	ug/L
Vinyl chloride	SW-103	3/04/2016		10.7	1.0	ug/L
Vinyl chloride	SW-103	3/09/2017		1.6	1.0	ug/L
Vinyl chloride	SW-103	9/14/2017		5.4	1.0	ug/L
Vinyl chloride	SW-103	3/12/2018		3.2	1.0	ug/L
Cis-1,2-dichloroethylene	SW-106	3/03/2016		1	1	ug/L
2-butanone (mek)	SW-2B	10/29/2009		237	5	ug/L
Acetone	SW-2B	10/29/2009		124	10	ug/L
Trichloroethylene	SW-2B	6/15/2005		1.61	.17	ug/L
1,4-dichlorobenzene	TILE 1	9/20/2016		1.3	1.0	ug/L
1,4-dichlorobenzene	TILE 1	11/09/2016		1.8	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/09/2017		2.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/14/2017		4.5	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/12/2018		5.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/10/2018		1.7	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/26/2019		1.8	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/24/2020		1.8	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/02/2020		3.7	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/08/2021		1.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/14/2021		2.5	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/28/2022		1.4	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/13/2022		2.3	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/23/2023		1.6	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/05/2023		4.5	1.0	ug/L
1,4-dichlorobenzene	TILE 1	3/06/2024		1.8	1.0	ug/L
1,4-dichlorobenzene	TILE 1	9/18/2024		3.3	1.0	ug/L
Acetone	TILE 1	9/14/2017		18.1	10.0	ug/L
Benzene	TILE 1	11/09/2016		1.6	1.0	ug/L
Benzene	TILE 1	3/09/2017		2.2	1.0	ug/L
Benzene	TILE 1	9/14/2017		2.7	1.0	ug/L
Benzene	TILE 1	3/12/2018		3.7	1.0	ug/L
Benzene	TILE 1	9/02/2020		1.9	1.0	ug/L
Benzene	TILE 1	9/14/2021		1.1	1.0	ug/L
Benzene	TILE 1	9/13/2022		2.1	1.0	ug/L
Benzene	TILE 1	9/05/2023		3.0	1.0	ug/L
Benzene	TILE 1	9/18/2024		1.8	1.0	ug/L
Chlorobenzene	TILE 1	9/20/2016		3.4	1.0	ug/L
Chlorobenzene	TILE 1	11/09/2016		3.6	1.0	ug/L
Chlorobenzene	TILE 1	3/09/2017		7.9	1.0	ug/L
Chlorobenzene	TILE 1	9/14/2017		5.8	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	TILE 1	3/12/2018		7.2	1.0	ug/L
Chlorobenzene	TILE 1	9/10/2018		4.3	1.0	ug/L
Chlorobenzene	TILE 1	3/26/2019		3.0	1.0	ug/L
Chlorobenzene	TILE 1	6/05/2019		4.9	1.0	ug/L
Chlorobenzene	TILE 1	9/16/2019		4.1	1.0	ug/L
Chlorobenzene	TILE 1	3/24/2020		3.9	1.0	ug/L
Chlorobenzene	TILE 1	9/02/2020		4.4	1.0	ug/L
Chlorobenzene	TILE 1	3/08/2021		2.7	1.0	ug/L
Chlorobenzene	TILE 1	9/14/2021		2.7	1.0	ug/L
Chlorobenzene	TILE 1	3/28/2022		2.9	1.0	ug/L
Chlorobenzene	TILE 1	9/13/2022		3.0	1.0	ug/L
Chlorobenzene	TILE 1	3/23/2023		2.9	1.0	ug/L
Chlorobenzene	TILE 1	9/05/2023		5.6	1.0	ug/L
Chlorobenzene	TILE 1	3/06/2024		1.8	1.0	ug/L
Chlorobenzene	TILE 1	9/18/2024		4.3	1.0	ug/L
Chloroform	TILE 1	9/16/2019		1.4	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/20/2016		7.0	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	11/09/2016		2.8	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/09/2017		3.9	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/12/2018		1.0	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/26/2019		3.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	6/05/2019		5.7	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/16/2019		3.9	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	3/24/2020		3.2	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/02/2020		1.7	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 1	9/14/2021		1.0	1.0	ug/L
Trans-1,2-dichloroethylene	TILE 1	3/12/2018		1.1	1.0	ug/L
Vinyl chloride	TILE 1	9/20/2016		3.0	1.0	ug/L
Vinyl chloride	TILE 1	11/09/2016		3.6	1.0	ug/L
Vinyl chloride	TILE 1	3/09/2017		4.0	1.0	ug/L
Vinyl chloride	TILE 1	9/02/2020		1.2	1.0	ug/L
1,4-dichlorobenzene	TILE 2	3/26/2019		1	1	ug/L
Chlorobenzene	TILE 2	3/26/2019		2.0	1.0	ug/L
Chlorobenzene	TILE 2	6/05/2019		1.2	1.0	ug/L
Chlorobenzene	TILE 2	9/16/2019		2.2	1.0	ug/L
Chlorobenzene	TILE 2	3/24/2020		1.0	1.0	ug/L
Chlorobenzene	TILE 2	9/02/2020		1.1	1.0	ug/L
Chlorobenzene	TILE 2	9/18/2024		1.1	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/10/2018		6.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/26/2019		19.9	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	6/05/2019		18.2	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/16/2019		5.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/24/2020		10.6	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/02/2020		1.3	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/08/2021		8.1	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/14/2021		3.8	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/28/2022		2.7	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/13/2022		4.1	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/23/2023		6.2	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/05/2023		2.3	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	3/06/2024		6.9	1.0	ug/L
Cis-1,2-dichloroethylene	TILE 2	9/18/2024		2.1	1.0	ug/L
Vinyl chloride	TILE 2	3/26/2019		6.2	1.0	ug/L
Vinyl chloride	TILE 2	9/16/2019		8.3	1.0	ug/L
Vinyl chloride	TILE 2	3/24/2020		3.5	1.0	ug/L
Vinyl chloride	TILE 2	9/02/2020		4.7	1.0	ug/L
Vinyl chloride	TILE 2	3/08/2021		2.4	1.0	ug/L
Vinyl chloride	TILE 2	9/14/2021		3.3	1.0	ug/L
Vinyl chloride	TILE 2	3/28/2022		1.3	1.0	ug/L
Vinyl chloride	TILE 2	9/13/2022		1.6	1.0	ug/L
Vinyl chloride	TILE 2	3/23/2023		1.9	1.0	ug/L
Vinyl chloride	TILE 2	9/05/2023		1.6	1.0	ug/L
Vinyl chloride	TILE 2	3/06/2024		1.0	1.0	ug/L
Vinyl chloride	TILE 2	9/18/2024		2.7	1.0	ug/L

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

**Attachment H**

Assessment Statistics for Verified 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-14D	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-14D	4	4.750	3.500	1.176	0.633	8.867	6.000	
Chlorobenzene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	100.000	
Cis-1,2-dichloroethylene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	70.000	
Toluene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	MW-14D	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,1-dichloroethane	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-17R	4	6.250	4.500	1.176	0.957	11.543	6.000	
Chlorobenzene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	100.000	
Cis-1,2-dichloroethylene	ug/L	MW-17R	4	2.150	1.127	1.176	0.824	3.476	70.000	
Toluene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	MW-17R	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,1-dichloroethane	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-28	2							*
Chlorobenzene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	100.000	
Cis-1,2-dichloroethylene	ug/L	MW-28	4	10.550	1.279	1.176	9.045	12.055	70.000	
Toluene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	MW-28	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	MW-28	4	0.875	0.435	1.176	0.363	1.387	2.000	
1,1-dichloroethane	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-32	0							*
Chlorobenzene	ug/L	MW-32	4	1.600	0.920	1.176	0.518	2.682	100.000	
Cis-1,2-dichloroethylene	ug/L	MW-32	4	0.625	0.250	1.176	0.331	0.919	70.000	
Toluene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	MW-32	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,1-dichloroethane	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-44	2							*
Chlorobenzene	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	100.000	
Cis-1,2-dichloroethylene	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	70.000	
Toluene	ug/L	MW-44	4	0.925	0.850	1.176	0.000	1.925	1000.000	
Trans-1,2-dichloroethylene	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	MW-44	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,1-dichloroethane	ug/L	MW-45D	2							*
1,2-dichloropropane	ug/L	MW-45D	2							*
1,4-dichlorobenzene	ug/L	MW-45D	2							*
Benzene	ug/L	MW-45D	2							*
Bis(2-ethylhexyl) phthalate	ug/L	MW-45D	0							*
Chlorobenzene	ug/L	MW-45D	2							*
Cis-1,2-dichloroethylene	ug/L	MW-45D	2							*
Toluene	ug/L	MW-45D	2							*
Trans-1,2-dichloroethylene	ug/L	MW-45D	2							*
Trichloroethylene	ug/L	MW-45D	2							*
Vinyl chloride	ug/L	MW-45D	2							*
1,1-dichloroethane	ug/L	MW-9AR	4	0.950	0.526	1.176	0.331	1.569	140.000	dec
1,2-dichloropropane	ug/L	MW-9AR	4	0.850	0.412	1.176	0.365	1.335	5.000	
1,4-dichlorobenzene	ug/L	MW-9AR	4	0.625	0.250	1.176	0.331	0.919	75.000	
Benzene	ug/L	MW-9AR	4	1.600	0.821	1.176	0.635	2.565	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-9AR	0							*
Chlorobenzene	ug/L	MW-9AR	4	4.100	2.502	1.176	1.157	7.043	100.000	

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

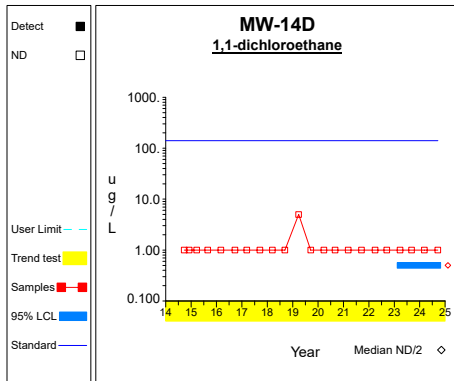
Table 1

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

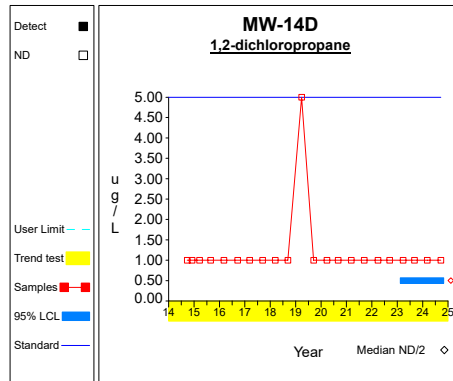
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Cis-1,2-dichloroethylene	ug/L	MW-9AR	4	60.825	12.703	1.176	45.883	75.767	70.000	
Toluene	ug/L	MW-9AR	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	MW-9AR	4	4.625	0.519	1.176	4.015	5.235	100.000	
Trichloroethylene	ug/L	MW-9AR	4	3.400	2.682	1.176	0.245	6.555	5.000	
Vinyl chloride	ug/L	MW-9AR	4	26.825	18.513	1.176	5.048	48.602	2.000	**
1,1-dichloroethane	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	TILE 1	4	2.800	1.364	1.176	1.196	4.404	75.000	
Benzene	ug/L	TILE 1	4	1.450	1.201	1.176	0.037	2.863	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	TILE 1	2							*
Chlorobenzene	ug/L	TILE 1	4	3.650	1.654	1.176	1.704	5.596	100.000	
Cis-1,2-dichloroethylene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	70.000	
Toluene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	TILE 1	4	0.500	0.000	1.176	0.500	0.500	2.000	
1,1-dichloroethane	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	140.000	
1,2-dichloropropane	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	5.000	
1,4-dichlorobenzene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	TILE 2	2							*
Chlorobenzene	ug/L	TILE 2	4	0.650	0.300	1.176	0.297	1.003	100.000	
Cis-1,2-dichloroethylene	ug/L	TILE 2	4	4.375	2.529	1.176	1.400	7.350	70.000	
Toluene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	1000.000	
Trans-1,2-dichloroethylene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	100.000	
Trichloroethylene	ug/L	TILE 2	4	0.500	0.000	1.176	0.500	0.500	5.000	
Vinyl chloride	ug/L	TILE 2	4	1.800	0.707	1.176	0.968	2.632	2.000	

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

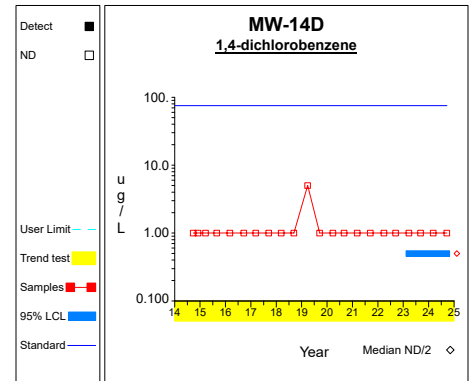
# Confidence Limits (Assessment)



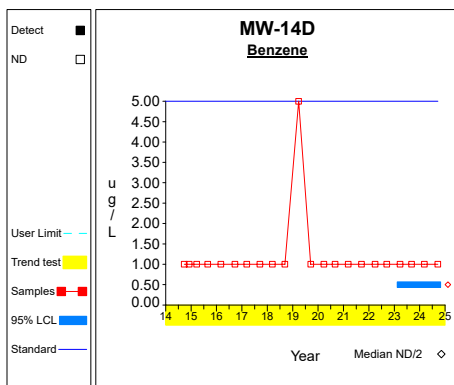
Graph 1



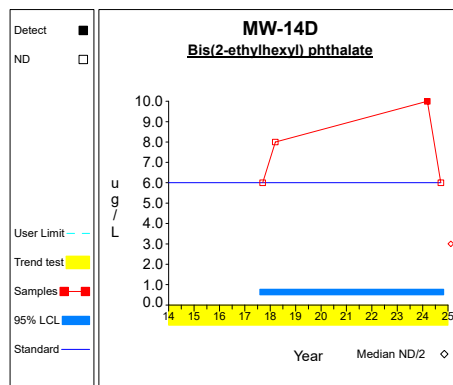
Graph 2



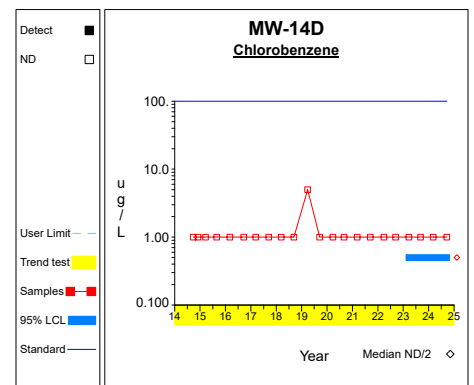
Graph 3



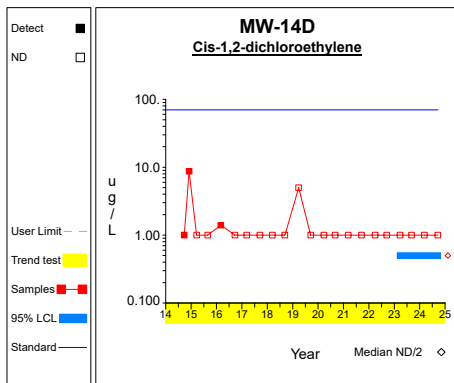
Graph 4



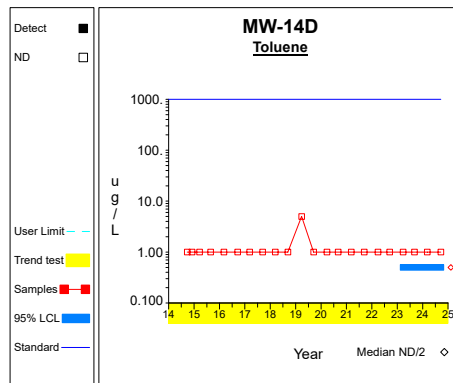
Graph 5



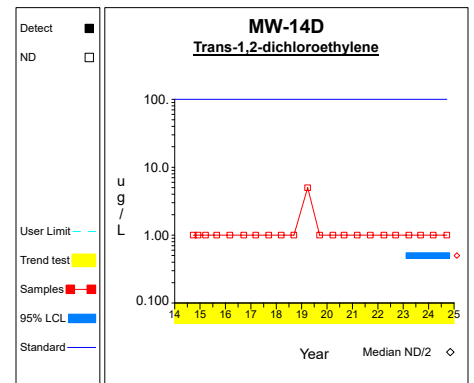
Graph 6



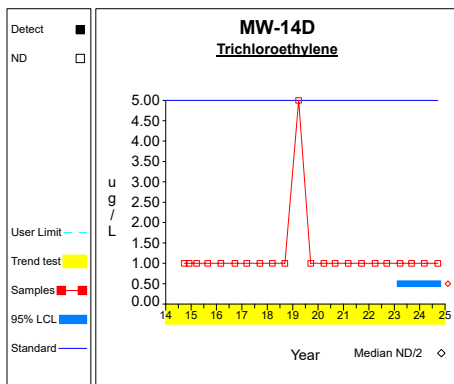
Graph 7



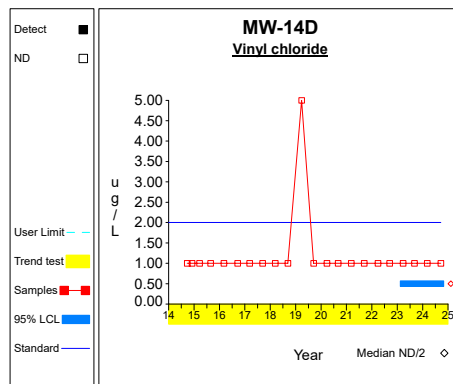
Graph 8



Graph 9

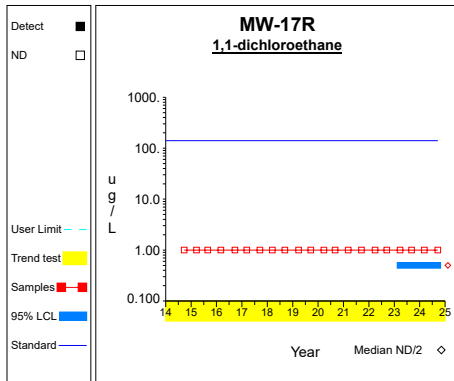


Graph 10

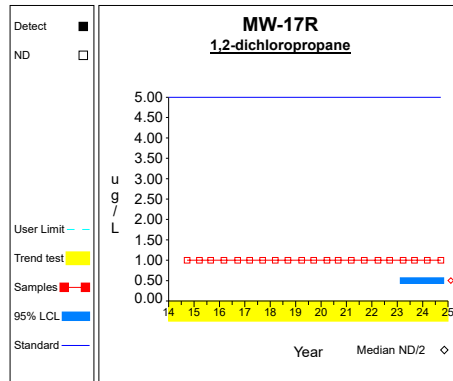


Graph 11

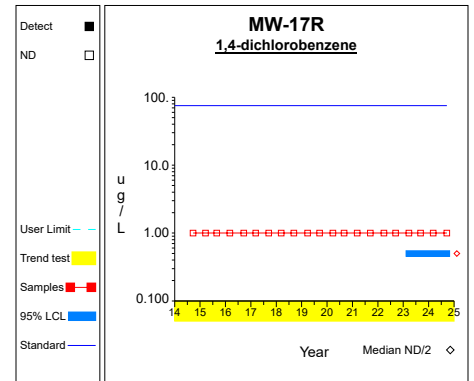
# Confidence Limits (Assessment)



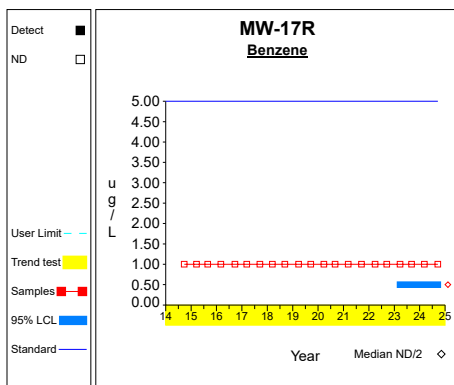
Graph 12



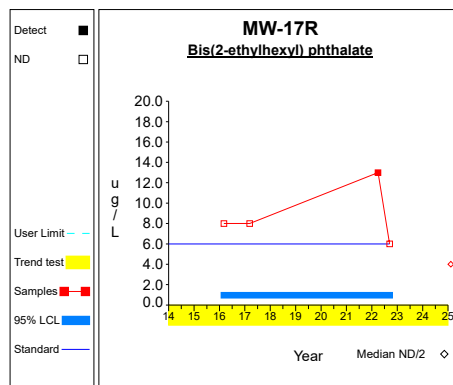
Graph 13



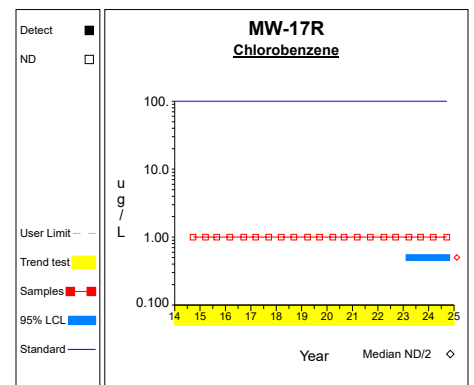
Graph 14



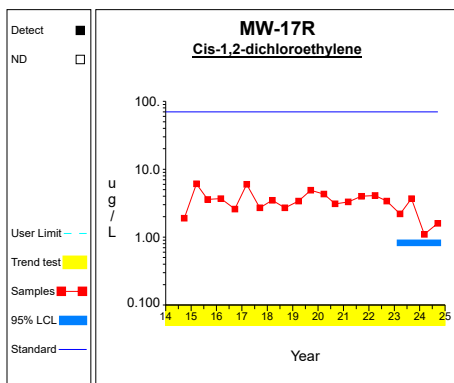
Graph 15



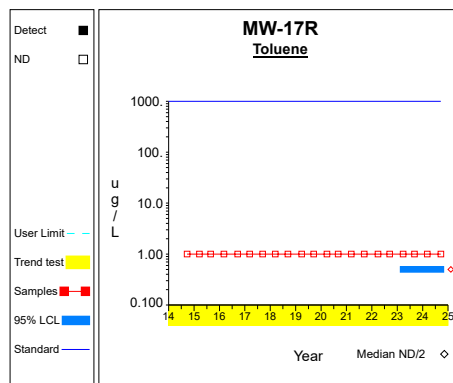
Graph 16



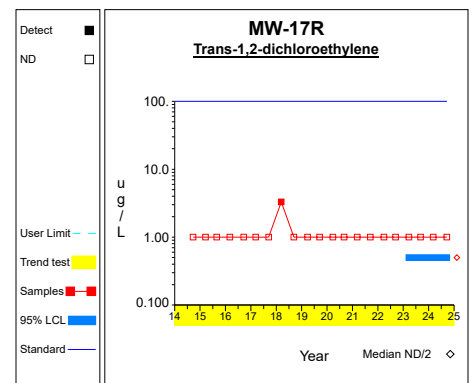
Graph 17



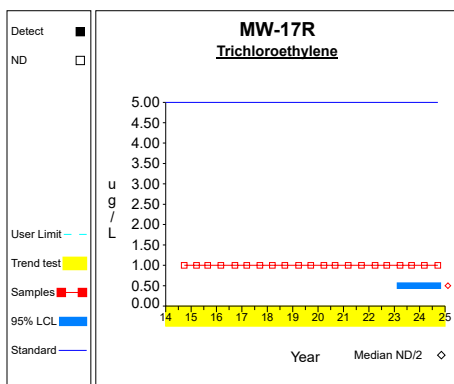
Graph 18



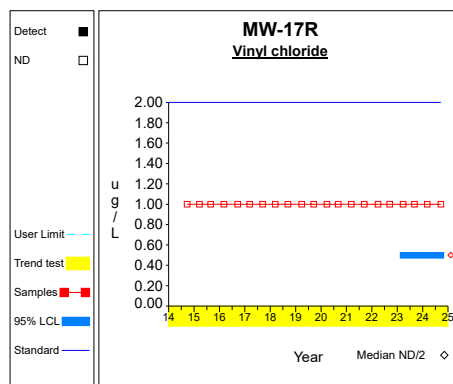
Graph 19



Graph 20



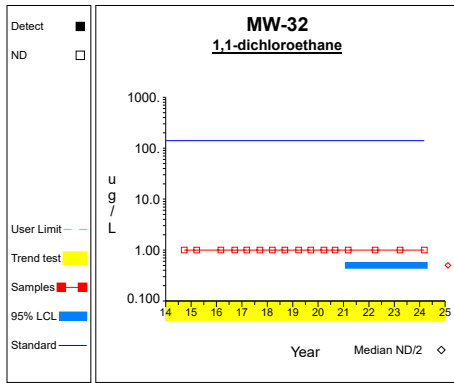
Graph 21



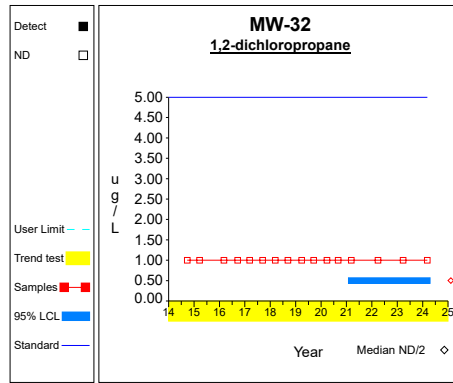
Graph 22



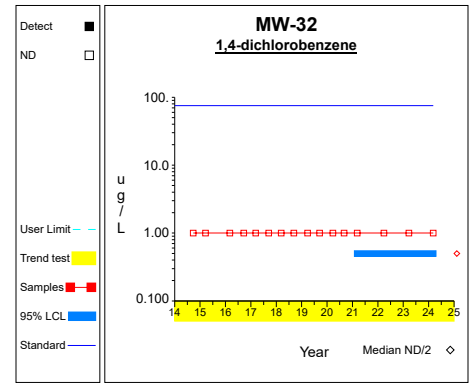
# Confidence Limits (Assessment)



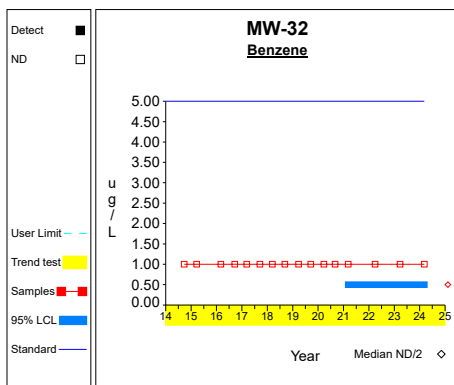
Graph 34



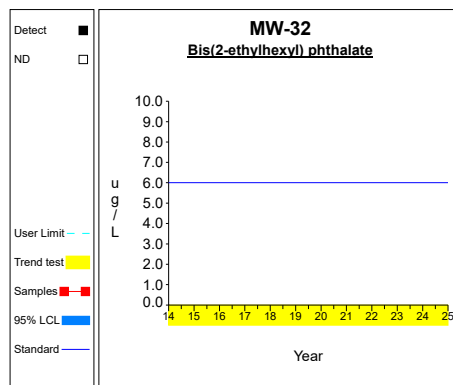
Graph 35



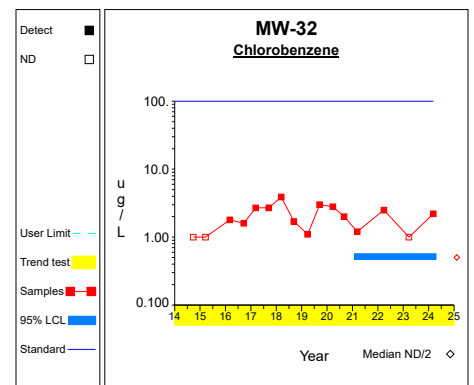
Graph 36



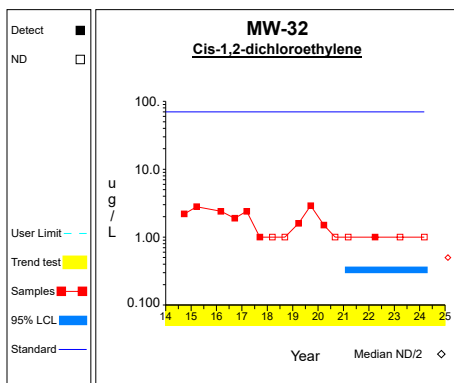
Graph 37



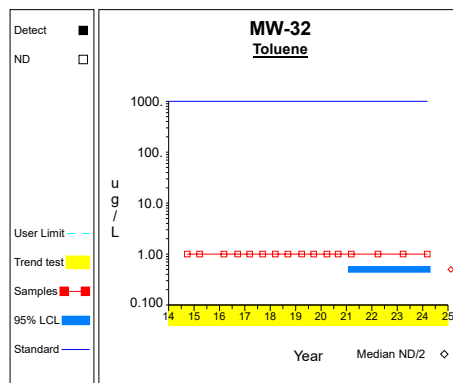
Graph 38



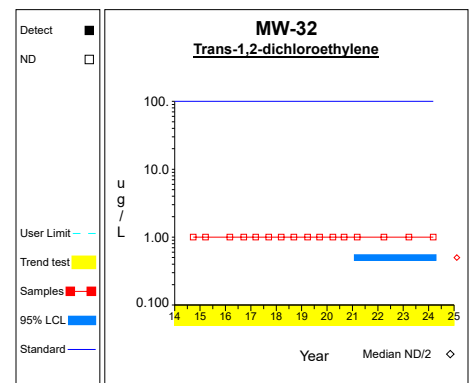
Graph 39



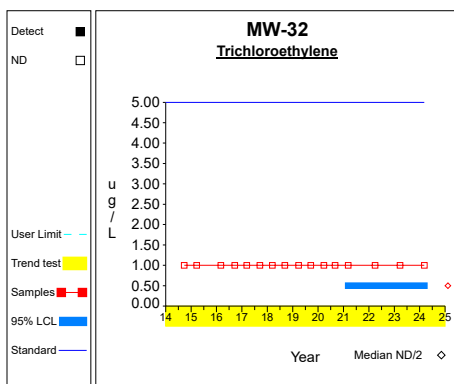
Graph 40



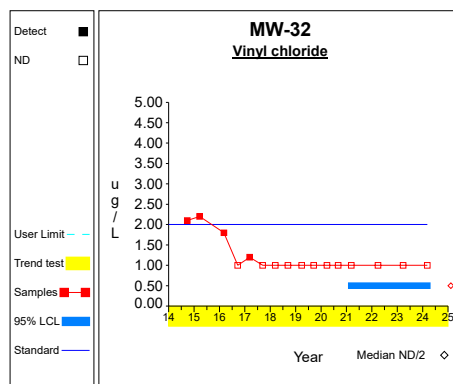
Graph 41



Graph 42

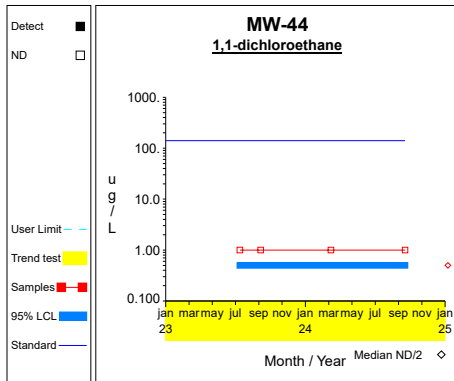


Graph 43

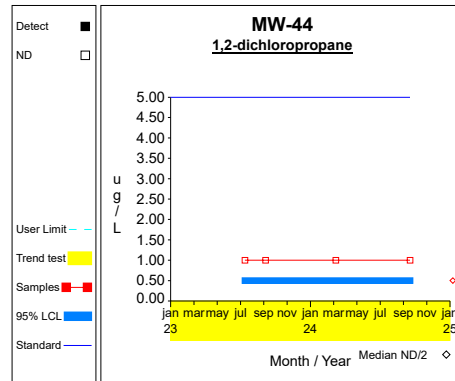


Graph 44

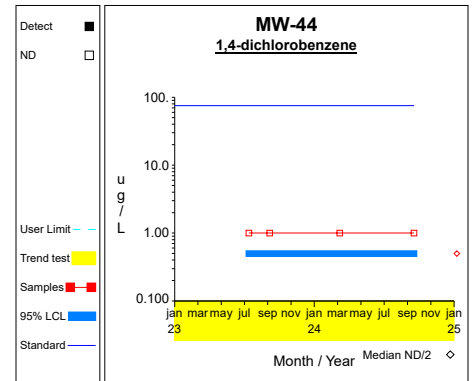
## Confidence Limits (Assessment)



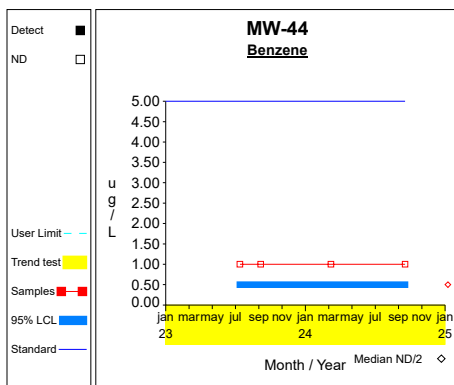
**Graph 45**



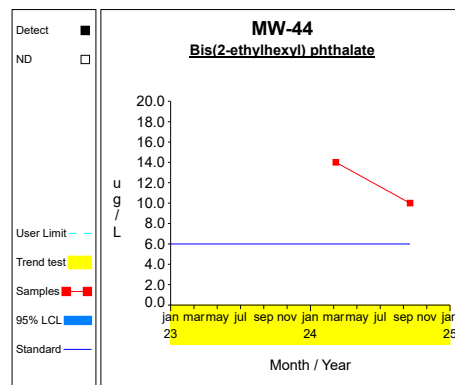
**Graph 46**



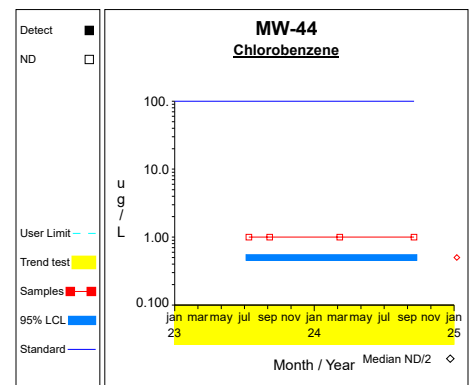
**Graph 47**



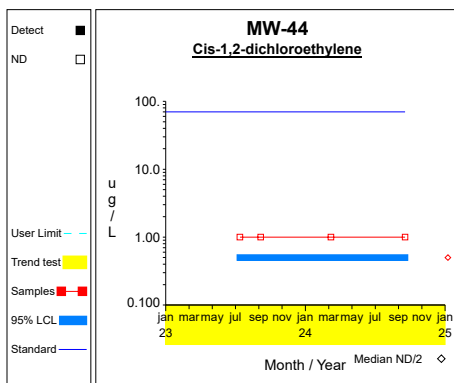
**Graph 48**



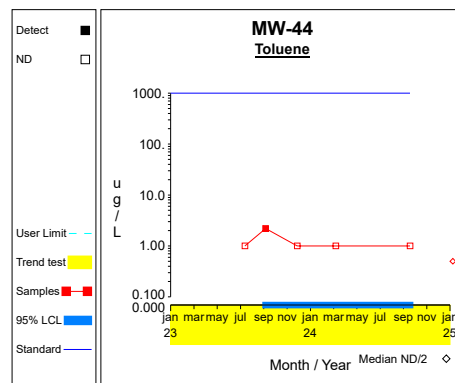
**Graph 49**



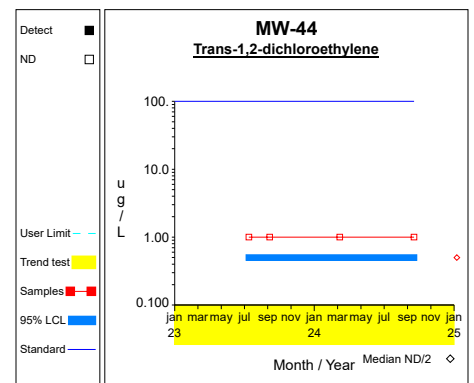
**Graph 50**



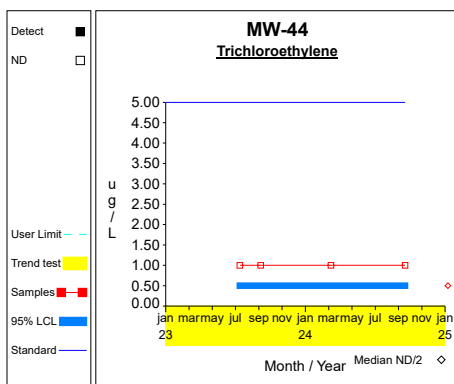
**Graph 51**



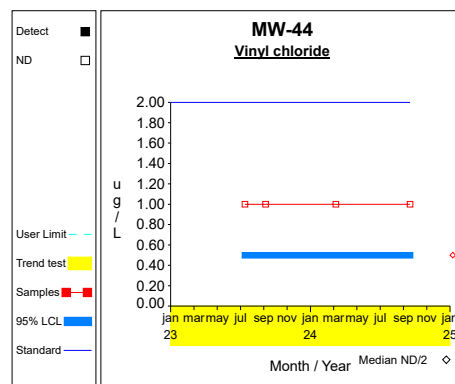
**Graph 52**



**Graph 53**

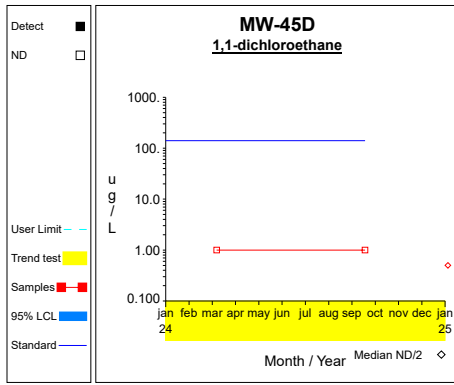


**Graph 54**

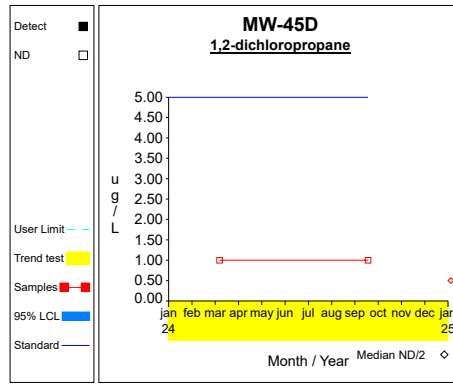


**Graph 55**

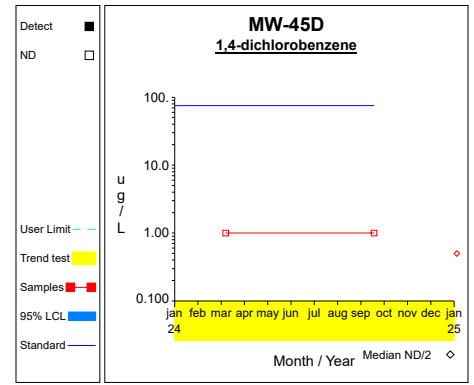
## Confidence Limits (Assessment)



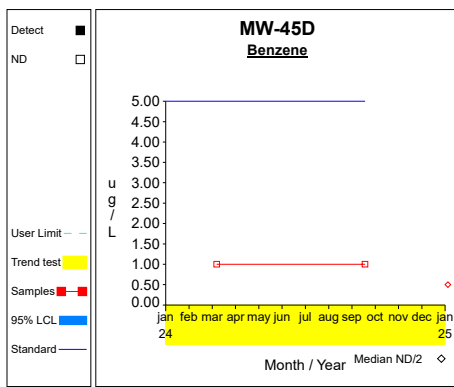
**Graph 56**



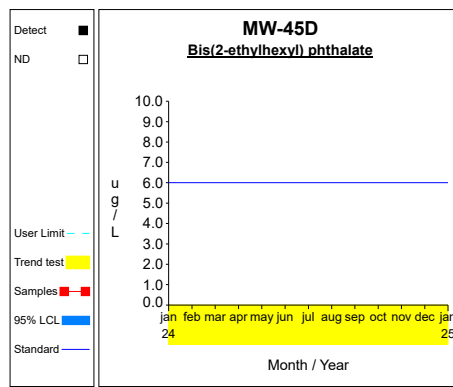
**Graph 57**



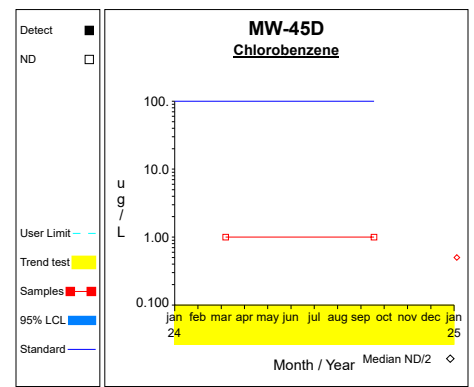
**Graph 58**



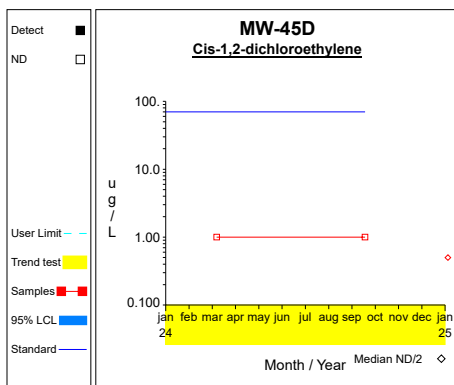
**Graph 59**



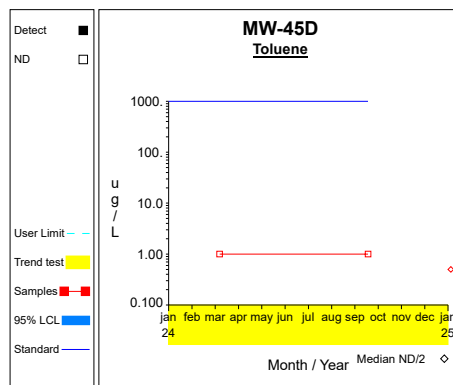
**Graph 60**



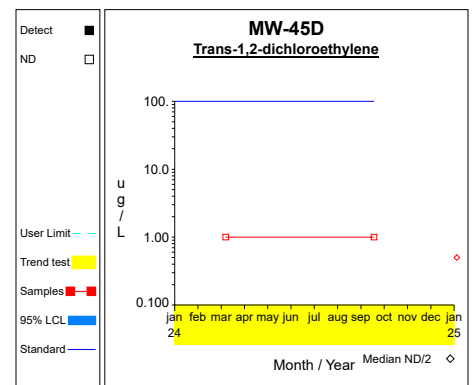
**Graph 61**



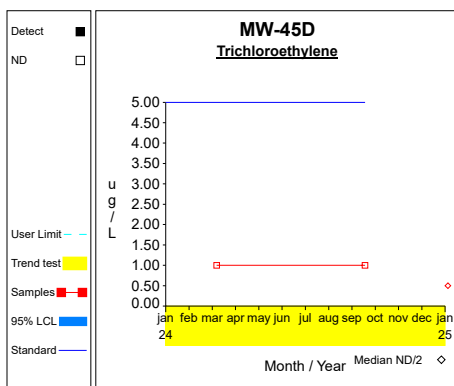
**Graph 62**



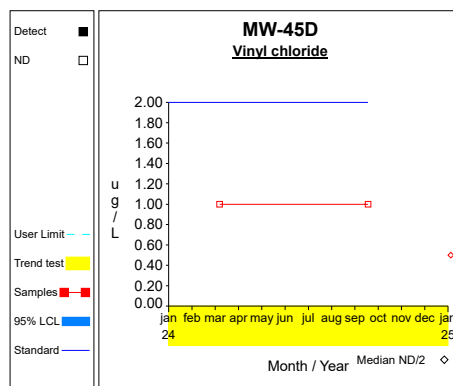
**Graph 63**



**Graph 64**



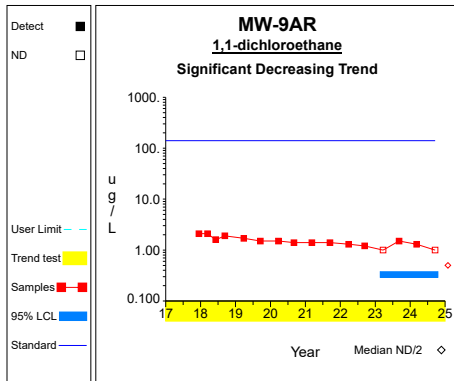
**Graph 65**



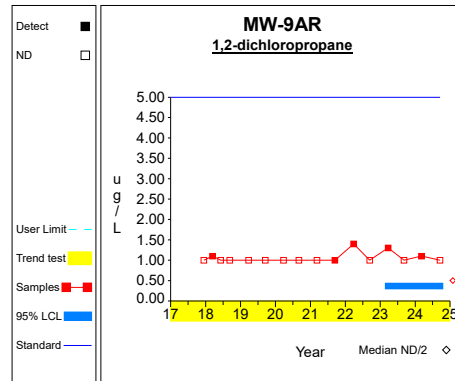
**Graph 66**



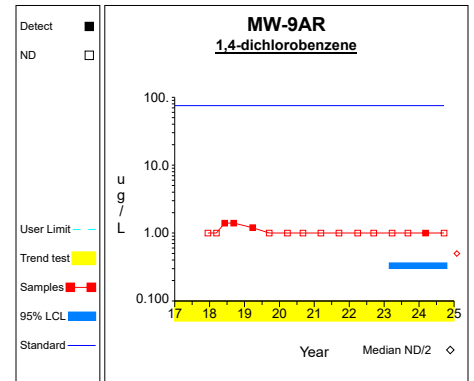
# Confidence Limits (Assessment)



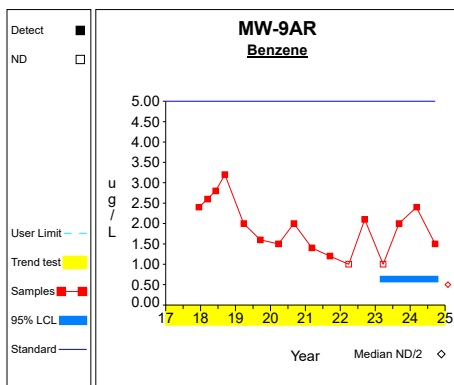
Graph 67



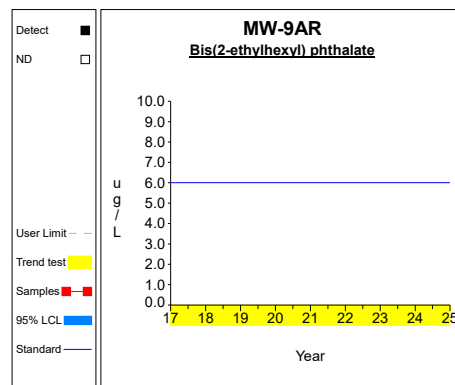
Graph 68



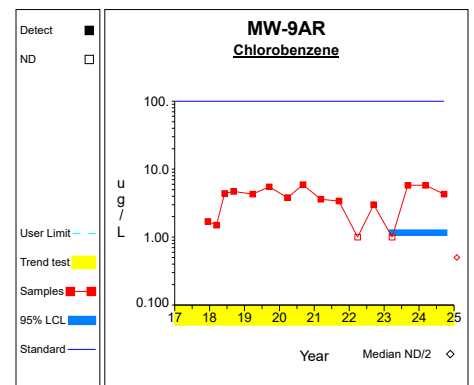
Graph 69



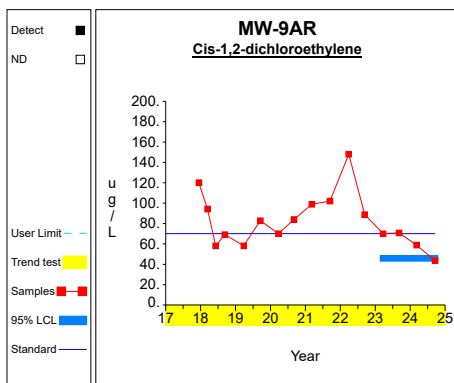
Graph 70



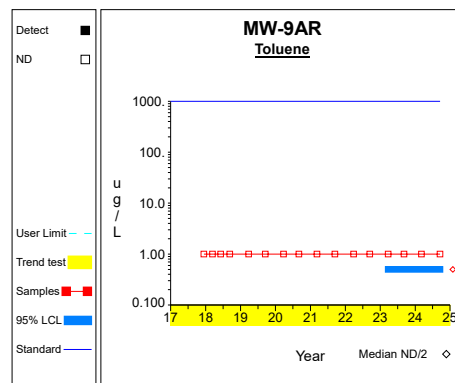
Graph 71



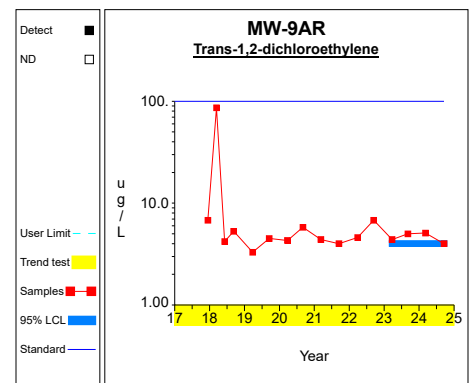
Graph 72



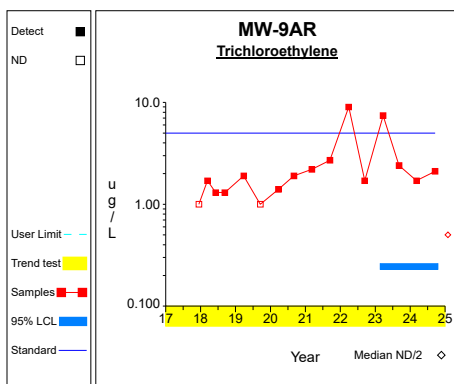
Graph 73



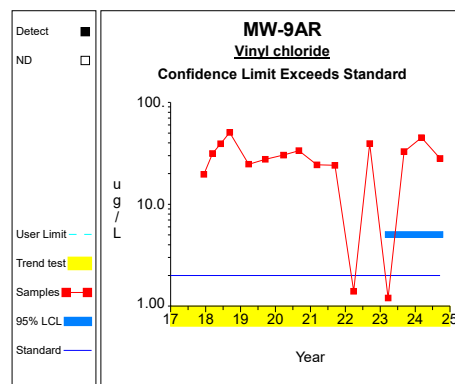
Graph 74



Graph 75

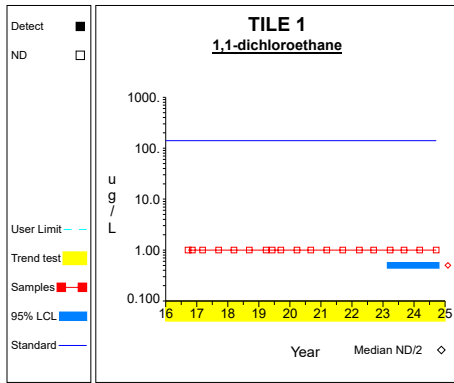


Graph 76

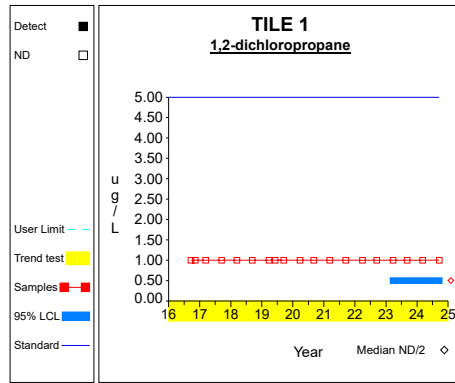


Graph 77

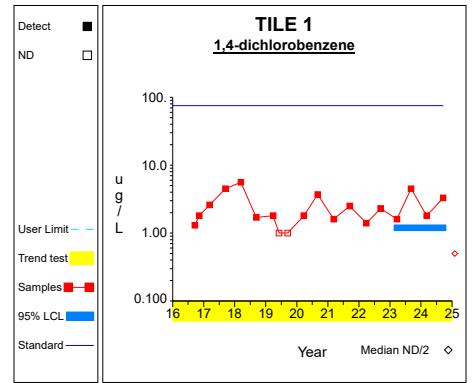
# Confidence Limits (Assessment)



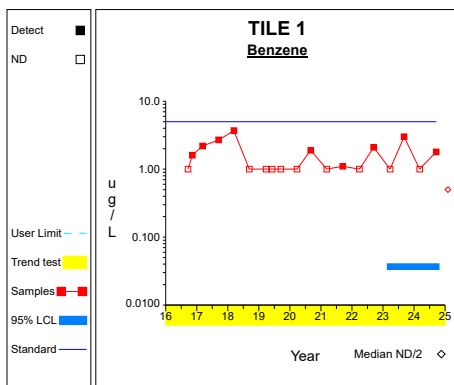
Graph 78



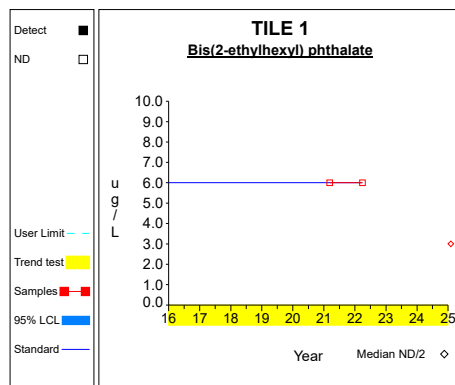
Graph 79



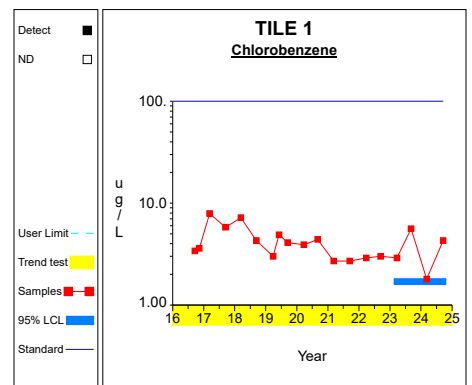
Graph 80



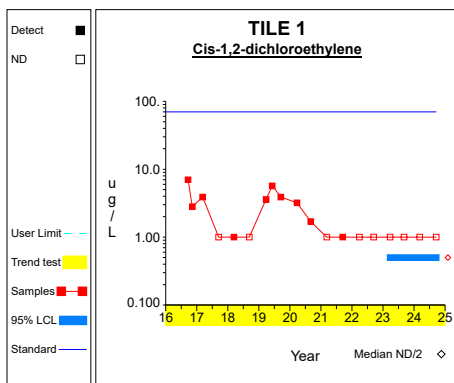
Graph 81



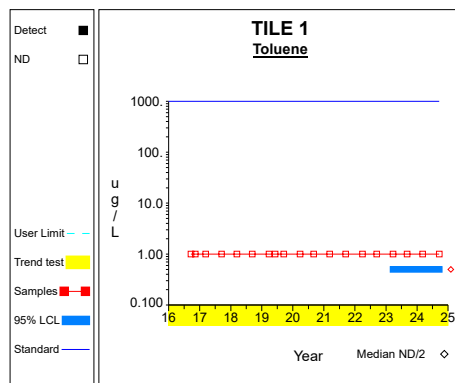
Graph 82



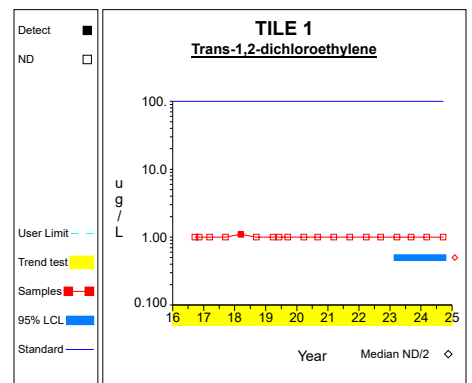
Graph 83



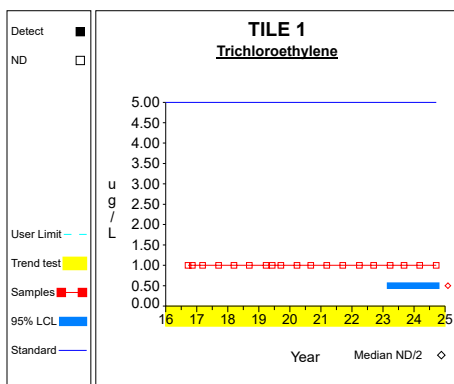
Graph 84



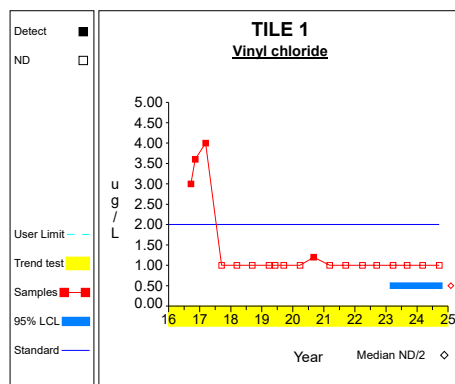
Graph 85



Graph 86

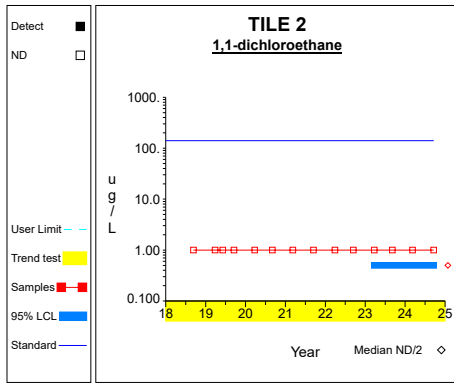


Graph 87

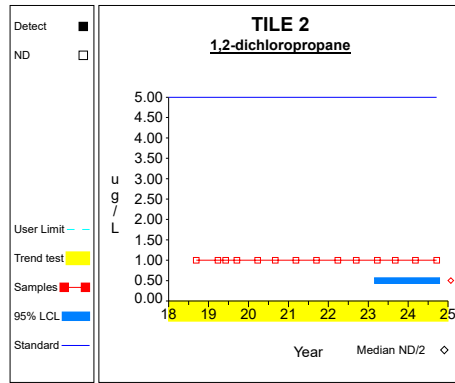


Graph 88

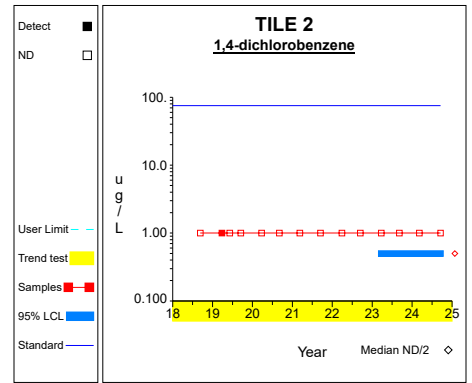
# Confidence Limits (Assessment)



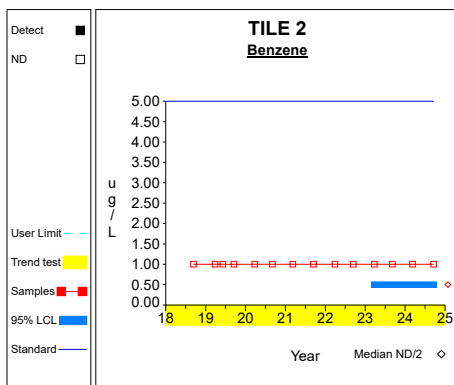
Graph 89



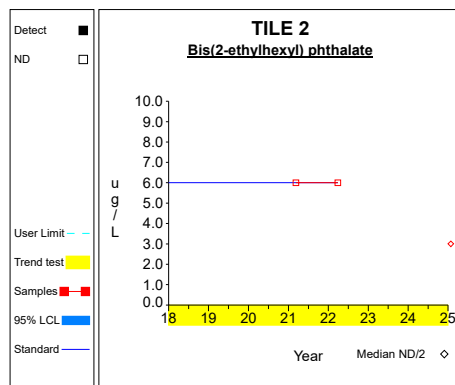
Graph 90



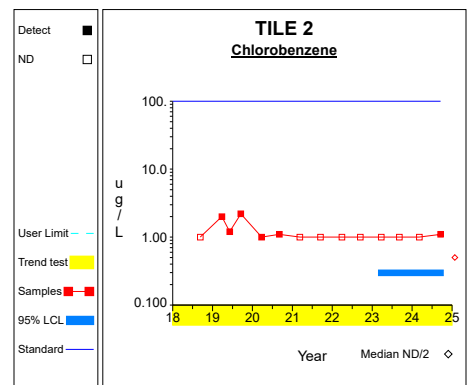
Graph 91



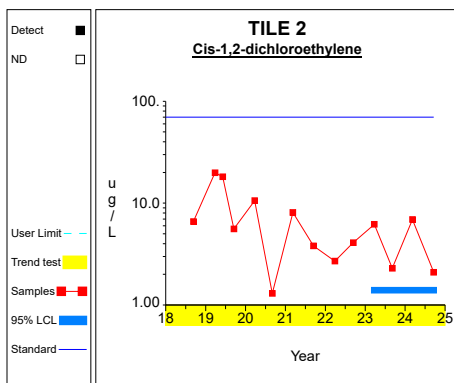
Graph 92



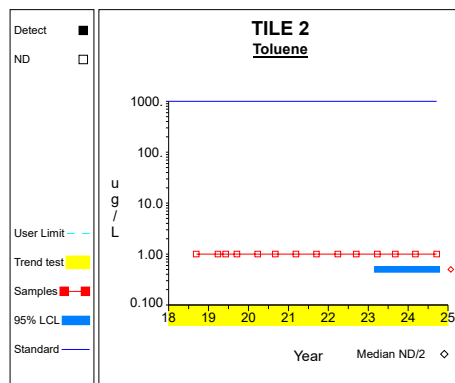
Graph 93



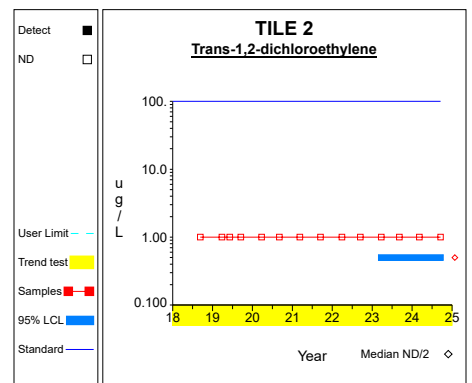
Graph 94



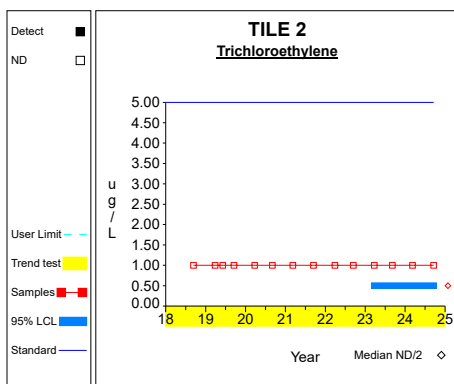
Graph 95



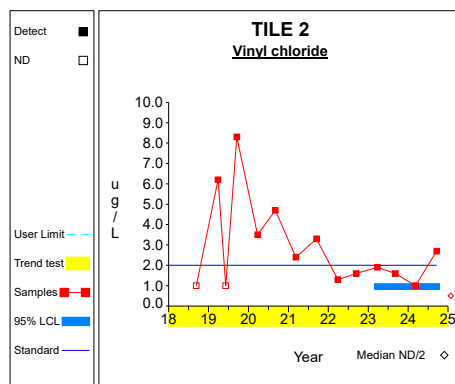
Graph 96



Graph 97



Graph 98



Graph 99

**Worksheet 6 - Assessment Monitoring**  
**1,1-dichloroethane (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.0 - 4.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 19.0 / 4$ $= 4.75$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{127.0 - 361.0/4}{4-1} \right)^{1/2}$ $= 3.5$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.75 - 2.353 * 3.5/4^{1/2}$ $= 0.633$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.75 + 2.353 * 3.5/4^{1/2}$ $= 8.867$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 5.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 5.0^{1/2}) / 2$ $= [ 0.12, 5.88 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -13.071, 1.159 ]$	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-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Cis-1,2-dichloroethylene (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 440.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 440.667^{1/2}) / 2$ $= [ 88.462, 142.538 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at MW-14D**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.0 - 4.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 22 * (22-1) / 2$ $= 231$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (231 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 115.5, 115.5 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,1-dichloroethane (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 25.0 / 4$ $= 6.25$	Compute the mean of the last 4 measurements.
2	$S = ( (\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1) )^{1/2}$ $= ( (217.0 - 625.0/4) / (4-1) )^{1/2}$ $= 4.5$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 6.25 - 2.353 * 4.5/4^{1/2}$ $= 0.957$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 6.25 + 2.353 * 4.5/4^{1/2}$ $= 11.543$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 5.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 5.0^{1/2}) / 2$ $= [ 0.12, 5.88 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -19.438, 1.746 ]$	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-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Cis-1,2-dichloroethylene (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.6 / 4$ $= 2.15$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((22.3 - 73.96/4) / (4-1))^{1/2}$ $= 1.127$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.15 - 2.353 * 1.127/4^{1/2}$ $= 0.824$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.15 + 2.353 * 1.127/4^{1/2}$ $= 3.476$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = -0.099$	Sen's estimator of trend.
7	$\text{var}(S) = 1093.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 1093.667^{1/2}) / 2$ $= [ 62.405, 147.595 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.422, 0.159 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.0 - 4.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 146.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 146.667^{1/2}) / 2$ $= [ 89.402, 120.598 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at MW-17R**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 21 * (21-1) / 2$ $= 210$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (210 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 105.0, 105.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,1-dichloroethane (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 138.0, 138.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 138.0, 138.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 138.0, 138.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 138.0, 138.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at MW-28**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Chlorobenzene (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 138.0, 138.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Cis-1,2-dichloroethylene (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 42.2 / 4$ $= 10.55$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{450.12 - 1780.84/4}{4-1} \right)^{1/2}$ $= 1.279$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 10.55 - 2.353 * 1.279/4^{1/2}$ $= 9.045$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 10.55 + 2.353 * 1.279/4^{1/2}$ $= 12.055$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = 0.891$	Sen's estimator of trend.
7	$\text{var}(S) = 1832.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 1832.333^{1/2}) / 2$ $= [ 94.866, 205.134 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.295, 2.162 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 138.0, 138.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 367.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 367.667^{1/2}) / 2$ $= [ 113.303, 162.697 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 138.0, 138.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at MW-28**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3.5 / 4$ $= 0.875$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((3.63 - 12.25/4) / (4-1))^{1/2}$ $= 0.435$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.875 - 2.353 * 0.435/4^{1/2}$ $= 0.363$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.875 + 2.353 * 0.435/4^{1/2}$ $= 1.387$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 1423.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 1423.0^{1/2}) / 2$ $= [ 101.413, 198.587 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.091 ]$	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-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at MW-32**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Chlorobenzene (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 6.4 / 4$ $= 1.6$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{12.78 - 40.96/4}{4-1} \right)^{1/2}$ $= 0.92$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.6 - 2.353 * 0.92/4^{1/2}$ $= 0.518$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.6 + 2.353 * 0.92/4^{1/2}$ $= 2.682$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.051$	Sen's estimator of trend.
7	$\text{var}(S) = 488.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 488.667^{1/2}) / 2$ $= [ 31.528, 88.472 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.25, 0.343 ]$	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-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.5 / 4$ $= 0.625$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.75 - 6.25/4) / (4-1))^{1/2}$ $= 0.25$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.625 - 2.353 * 0.25/4^{1/2}$ $= 0.331$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.625 + 2.353 * 0.25/4^{1/2}$ $= 0.919$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = -0.227$	Sen's estimator of trend.
7	$\text{var}(S) = 463.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 463.0^{1/2}) / 2$ $= [ 32.286, 87.714 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.422, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at MW-32**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 280.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 280.667^{1/2}) / 2$ $= [ 38.422, 81.578 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.223, 0.0 ]$	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-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at MW-44**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Chlorobenzene (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Cis-1,2-dichloroethylene (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3.7 / 4$ $= 0.925$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{5.59 - 13.69/4}{4-1} \right)^{1/2}$ $= 0.85$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.925 - 2.353 * 0.85/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.925 + 2.353 * 0.85/4^{1/2}$ $= 1.925$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 8.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 8.0^{1/2}) / 2$ $= [ 1.357, 8.643 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -5.961, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at MW-44**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at MW-44**

<b><u>Step</u></b>	<b><u>Equation</u></b>	<b><u>Description</u></b>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 4 * (4-1) / 2$ $= 6$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (6 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 3.0, 3.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,1-dichloroethane (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Chlorobenzene (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Cis-1,2-dichloroethylene (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at MW-45D**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at MW-45D**

Insufficient data to perform analysis



**Worksheet 6 - Assessment Monitoring**  
**1,1-dichloroethane (ug/L) at MW-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3.8 / 4$ $= 0.95$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{4.44 - 14.44/4}{4-1} \right)^{1/2}$ $= 0.526$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.95 - 2.353 * 0.526/4^{1/2}$ $= 0.331$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.95 + 2.353 * 0.526/4^{1/2}$ $= 1.569$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = -0.172$	Sen's estimator of trend.
7	$\text{var}(S) = 483.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 483.0^{1/2}) / 2$ $= [ 31.693, 88.307 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.261, -0.068 ]$	Two-sided confidence interval for slope.
10	$\text{UCL}(S) < 0$	<b>Significant decreasing trend.</b>

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at MW-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3.4 / 4$ $= 0.85$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((3.4 - 11.56/4) / (4-1))^{1/2}$ $= 0.412$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.85 - 2.353 * 0.412/4^{1/2}$ $= 0.365$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.85 + 2.353 * 0.412/4^{1/2}$ $= 1.335$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 327.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 327.333^{1/2}) / 2$ $= [ 36.697, 83.303 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.099 ]$	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-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.5 / 4$ $= 0.625$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.75 - 6.25/4) / (4-1))^{1/2}$ $= 0.25$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.625 - 2.353 * 0.25/4^{1/2}$ $= 0.331$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.625 + 2.353 * 0.25/4^{1/2}$ $= 0.919$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 279.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 279.667^{1/2}) / 2$ $= [ 38.46, 81.54 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at MW-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 6.4 / 4$ $= 1.6$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{12.26 - 40.96/4}{4-1} \right)^{1/2}$ $= 0.821$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.6 - 2.353 * 0.821/4^{1/2}$ $= 0.635$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.6 + 2.353 * 0.821/4^{1/2}$ $= 2.565$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = -0.196$	Sen's estimator of trend.
7	$\text{var}(S) = 486.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 486.667^{1/2}) / 2$ $= [ 31.586, 88.414 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.481, 0.062 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at MW-9AR**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Chlorobenzene (ug/L) at MW-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 16.4 / 4$ $= 4.1$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{86.02 - 268.96/4}{4-1} \right)^{1/2}$ $= 2.502$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.1 - 2.353 * 2.502/4^{1/2}$ $= 1.157$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.1 + 2.353 * 2.502/4^{1/2}$ $= 7.043$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.034$	Sen's estimator of trend.
7	$\text{var}(S) = 490.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 490.333^{1/2}) / 2$ $= [ 31.479, 88.521 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.437, 0.727 ]$	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-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 243.3 / 4$ $= 60.825$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{15282.81 - 59194.89/4}{4-1} \right)^{1/2}$ $= 12.703$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 60.825 - 2.353 * 12.703/4^{1/2}$ $= 45.883$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 60.825 + 2.353 * 12.703/4^{1/2}$ $= 75.767$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = -2.916$	Sen's estimator of trend.
7	$\text{var}(S) = 492.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 492.333^{1/2}) / 2$ $= [ 31.421, 88.579 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -13.332, 7.327 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at MW-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 0.0^{1/2}) / 2$ $= [ 60.0, 60.0 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at MW-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 18.5 / 4$ $= 4.625$	Compute the mean of the last 4 measurements.
2	$S = ( (\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1) )^{1/2}$ $= ( (86.37 - 342.25/4) / (4-1) )^{1/2}$ $= 0.519$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.625 - 2.353 * 0.519/4^{1/2}$ $= 4.015$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.625 + 2.353 * 0.519/4^{1/2}$ $= 5.235$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = -0.064$	Sen's estimator of trend.
7	$\text{var}(S) = 490.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 490.333^{1/2}) / 2$ $= [ 31.479, 88.521 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.767, 0.247 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at MW-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 13.6 / 4$ $= 3.4$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((67.82 - 184.96/4) / (4-1))^{1/2}$ $= 2.682$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 3.4 - 2.353 * 2.682/4^{1/2}$ $= 0.245$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 3.4 + 2.353 * 2.682/4^{1/2}$ $= 6.555$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = 0.215$	Sen's estimator of trend.
7	$\text{var}(S) = 486.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 486.667^{1/2}) / 2$ $= [ 31.586, 88.414 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.914 ]$	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-9AR**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 107.3 / 4$ $= 26.825$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{3906.53 - 11513.29/4}{4-1} \right)^{1/2}$ $= 18.513$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 26.825 - 2.353 * 18.513/4^{1/2}$ $= 5.048$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 26.825 + 2.353 * 18.513/4^{1/2}$ $= 48.602$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 16 * (16-1) / 2$ $= 120$	Number of sample pairs during trend detection period.
6	$S = -0.218$	Sen's estimator of trend.
7	$\text{var}(S) = 493.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (120 \pm 2.576 * 493.333^{1/2}) / 2$ $= [ 31.392, 88.608 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -6.185, 4.016 ]$	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 TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 0.0^{1/2}) / 2$ $= [85.5, 85.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 0.0^{1/2}) / 2$ $= [85.5, 85.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 11.2 / 4$ $= 2.8$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{36.94 - 125.44/4}{4-1} \right)^{1/2}$ $= 1.364$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.8 - 2.353 * 1.364/4^{1/2}$ $= 1.196$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.8 + 2.353 * 1.364/4^{1/2}$ $= 4.404$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.018$	Sen's estimator of trend.
7	$\text{var}(S) = 805.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 805.333^{1/2}) / 2$ $= [ 48.949, 122.051 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.27, 0.335 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 5.8 / 4$ $= 1.45$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((12.74 - 33.64/4) / (4-1))^{1/2}$ $= 1.201$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.45 - 2.353 * 1.201/4^{1/2}$ $= 0.037$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.45 + 2.353 * 1.201/4^{1/2}$ $= 2.863$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 692.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 692.0^{1/2}) / 2$ $= [ 51.618, 119.382 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.243, 0.209 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Bis(2-ethylhexyl) phthalate (ug/L) at TILE 1**

Insufficient data to perform analysis

**Worksheet 6 - Assessment Monitoring**  
**Chlorobenzene (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 14.6 / 4$ $= 3.65$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{61.5 - 213.16/4}{4-1} \right)^{1/2}$ $= 1.654$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 3.65 - 2.353 * 1.654/4^{1/2}$ $= 1.704$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 3.65 + 2.353 * 1.654/4^{1/2}$ $= 5.596$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = -0.253$	Sen's estimator of trend.
7	$\text{var}(S) = 813.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 813.0^{1/2}) / 2$ $= [ 48.775, 122.225 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.704, 0.134 ]$	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 TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = -0.371$	Sen's estimator of trend.
7	$\text{var}(S) = 723.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 723.0^{1/2}) / 2$ $= [ 50.867, 120.133 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.934, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.



**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 0.0^{1/2}) / 2$ $= [85.5, 85.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.0 - 4.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 120.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 120.0^{1/2}) / 2$ $= [ 71.391, 99.609 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 0.0^{1/2}) / 2$ $= [85.5, 85.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at TILE 1**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 408.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 408.667^{1/2}) / 2$ $= [ 59.462, 111.538 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,1-dichloroethane (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.0 - 4.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 0.0^{1/2}) / 2$ $= [45.5, 45.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,2-dichloropropane (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 0.0^{1/2}) / 2$ $= [45.5, 45.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**1,4-dichlorobenzene (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.0 - 4.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 65.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 65.0^{1/2}) / 2$ $= [ 35.116, 55.884 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ 0.0, 0.0 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Benzene (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 0.0^{1/2}) / 2$ $= [45.5, 45.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

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

Insufficient data to perform analysis



**Worksheet 6 - Assessment Monitoring**  
**Chlorobenzene (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.6 / 4$ $= 0.65$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.96 - 6.76/4}{4-1} \right)^{1/2}$ $= 0.3$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.65 - 2.353 * 0.3/4^{1/2}$ $= 0.297$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.65 + 2.353 * 0.3/4^{1/2}$ $= 1.003$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 267.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 267.333^{1/2}) / 2$ $= [ 24.441, 66.559 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -0.324, 0.0 ]$	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 TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 17.5 / 4$ $= 4.375$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((95.75 - 306.25/4) / (4-1))^{1/2}$ $= 2.529$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.375 - 2.353 * 2.529/4^{1/2}$ $= 1.4$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.375 + 2.353 * 2.529/4^{1/2}$ $= 7.35$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = -0.993$	Sen's estimator of trend.
7	$\text{var}(S) = 333.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 333.667^{1/2}) / 2$ $= [ 21.973, 69.027 ]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [ -4.311, 0.302 ]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Toluene (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 0.0^{1/2}) / 2$ $= [45.5, 45.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trans-1,2-dichloroethylene (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = \left( \frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left( \frac{1.0 - 4.0/4}{4-1} \right)^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 0.0^{1/2}) / 2$ $= [45.5, 45.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Trichloroethylene (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 0.0^{1/2}) / 2$ $= [45.5, 45.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

**Worksheet 6 - Assessment Monitoring**  
**Vinyl chloride (ug/L) at TILE 2**

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 7.2 / 4$ $= 1.8$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((14.46 - 51.84/4) / (4-1))^{1/2}$ $= 0.707$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.8 - 2.353 * 0.707/4^{1/2}$ $= 0.968$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.8 + 2.353 * 0.707/4^{1/2}$ $= 2.632$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 14 * (14-1) / 2$ $= 91$	Number of sample pairs during trend detection period.
6	$S = -0.467$	Sen's estimator of trend.
7	$\text{var}(S) = 331.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (91 \pm 2.576 * 331.667^{1/2}) / 2$ $= [22.043, 68.957]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M <sup>th</sup> largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-1.173, 0.414]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

## Appendix D

### Laboratory Reports for Reporting Period *With Chain of Custody*



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1HA0649

Project Description

SCILA - New Regs

For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248

A handwritten signature in black ink that reads "Heather Murphy".

---

Heather Murphy

Customer Relationship Specialist

Thursday, January 25, 2024

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

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

Microbac Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | [www.microbac.com](http://www.microbac.com)





Keystone Laboratories - Newton  
CERTIFICATE OF ANALYSIS  
1HA0649

**HLW Engineering**

Todd Whipple  
PO Box 314  
Story City, IA 50248

**Project Name: SCILA - New Regs**

Project / PO Number: / 6022  
Received: 01/10/2024  
Reported: 01/25/2024

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**Sample Summary Report**

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
GU-A	1HA0649-01	Water	GRAB		01/08/24 08:39	01/10/24 10:25
GU-B	1HA0649-02	Water	GRAB		01/08/24 08:29	01/10/24 10:25
GU-2	1HA0649-03	Water	GRAB		01/08/24 08:35	01/10/24 10:25



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1HA0649

Analytical Testing Parameters

<b>Client Sample ID:</b>	GU-A	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	01/08/2024 8:39
<b>Lab Sample ID:</b>	1HA0649-01		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0083	0.0020	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Barium, total	0.0312	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Copper, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Lead, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Nickel, total	0.0468	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Selenium, total	0.0252	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Silver, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		01/22/24 0910	01/22/24 2325	RVV
Zinc, total	0.323	0.0200	mg/L	4		01/22/24 0910	01/22/24 2325	RVV

<b>Client Sample ID:</b>	GU-B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	01/08/2024 8:29
<b>Lab Sample ID:</b>	1HA0649-02		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0057	0.0020	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Barium, total	0.0553	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Cobalt, total	0.0006	0.0004	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Copper, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Lead, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Nickel, total	0.0176	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Selenium, total	0.0069	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Silver, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		01/22/24 0910	01/23/24 0002	RVV
Zinc, total	0.167	0.0200	mg/L	4		01/22/24 0910	01/23/24 0002	RVV



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1HA0649

<b>Client Sample ID:</b>	GU-2	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	01/08/2024 8:35
<b>Lab Sample ID:</b>	1HA0649-03		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0020	0.0020	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Barium, total	0.219	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Cobalt, total	0.0019	0.0004	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Copper, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Lead, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Nickel, total	0.0308	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Silver, total	<0.0040	0.0040	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		01/22/24 0910	01/23/24 0008	RVV
Zinc, total	0.725	0.0200	mg/L	4		01/22/24 0910	01/23/24 0008	RVV



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1HA0649

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HA0951	1HA0951-BLK1	
		1HA0951-BS1	
		1HA0649-01	GU-A
		1HA0951-MS1	1HA0649-01
		1HA0951-MSD1	1HA0649-01
		1HA0951-PS1	1HA0649-01
		1HA0649-02	GU-B
		1HA0649-03	GU-2

Batch Quality Control Summary: Keystone Laboratories - Newton

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HA0951 - EPA 3005A Total Recoverable Metals - EPA 6020A

Blank (1HA0951-BLK1)				Prepared: 01/22/24 09:10 Analyzed: 01/22/24 23:13						
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 (1HA0951-BS1)				Prepared: 01/22/24 09:10 Analyzed: 01/22/24 23:19						
Antimony, total	0.0946	0.0020	mg/L	0.100	94.6	80-120				
Arsenic, total	0.0986	0.0040	mg/L	0.100	98.6	80-120				
Barium, total	0.102	0.0040	mg/L	0.100	102	80-120				
Beryllium, total	0.0861	0.0040	mg/L	0.100	86.1	80-120				
Cadmium, total	0.0970	0.0008	mg/L	0.100	97.0	80-120				
Chromium, total	0.0981	0.0080	mg/L	0.100	98.1	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	0.101	0.0040	mg/L	0.100	101	80-120				
Nickel, total	0.103	0.0040	mg/L	0.100	103	80-120				
Selenium, total	0.1015	0.0040	mg/L	0.100	102	80-120				
Silver, total	0.0976	0.0040	mg/L	0.100	97.6	80-120				
Thallium, total	0.0997	0.0020	mg/L	0.100	99.7	80-120				



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1HA0649

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HA0951 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>LCS (1HA0951-BS1)</b>			Prepared: 01/22/24 09:10 Analyzed: 01/22/24 23:19							
Vanadium, total	0.101	0.0200	mg/L	0.100		101	80-120			
Zinc, total	0.102	0.0200	mg/L	0.100		102	80-120			
<b>Matrix Spike (1HA0951-MS1)</b>			Source: 1HA0649-01		Prepared: 01/22/24 09:10 Analyzed: 01/22/24 23:31					
Antimony, total	0.103	0.0020	mg/L	0.100	0.0083	94.5	75-125			
Arsenic, total	0.101	0.0040	mg/L	0.100	0.0019	98.8	75-125			
Barium, total	0.136	0.0040	mg/L	0.100	0.0312	105	75-125			
Beryllium, total	0.0792	0.0040	mg/L	0.100	ND	79.2	75-125			
Cadmium, total	0.0928	0.0008	mg/L	0.100	0.0005	92.3	75-125			
Chromium, total	0.0928	0.0080	mg/L	0.100	0.0007	92.0	75-125			
Cobalt, total	0.101	0.0004	mg/L	0.100	0.0003	100	75-125			
Copper, total	0.0925	0.0040	mg/L	0.100	0.0012	91.3	75-125			
Lead, total	0.0916	0.0040	mg/L	0.100	ND	91.6	75-125			
Nickel, total	0.142	0.0040	mg/L	0.100	0.0468	95.0	75-125			
Selenium, total	0.1220	0.0040	mg/L	0.100	0.0252	96.8	75-125			
Silver, total	0.0932	0.0040	mg/L	0.100	ND	93.2	75-125			
Thallium, total	0.0933	0.0020	mg/L	0.100	0.0002	93.0	75-125			
Vanadium, total	0.100	0.0200	mg/L	0.100	ND	100	75-125			
Zinc, total	0.413	0.0200	mg/L	0.100	0.323	90.1	75-125			
<b>Matrix Spike Dup (1HA0951-MSD1)</b>			Source: 1HA0649-01		Prepared: 01/22/24 09:10 Analyzed: 01/22/24 23:37					
Antimony, total	0.104	0.0020	mg/L	0.100	0.0083	95.4	75-125	0.822	20	
Arsenic, total	0.101	0.0040	mg/L	0.100	0.0019	98.7	75-125	0.178	20	
Barium, total	0.137	0.0040	mg/L	0.100	0.0312	106	75-125	0.853	20	
Beryllium, total	0.0772	0.0040	mg/L	0.100	ND	77.2	75-125	2.58	20	
Cadmium, total	0.0929	0.0008	mg/L	0.100	0.0005	92.4	75-125	0.0814	20	
Chromium, total	0.0923	0.0080	mg/L	0.100	0.0007	91.6	75-125	0.489	20	
Cobalt, total	0.100	0.0004	mg/L	0.100	0.0003	99.7	75-125	0.546	20	
Copper, total	0.0909	0.0040	mg/L	0.100	0.0012	89.7	75-125	1.72	20	
Lead, total	0.0901	0.0040	mg/L	0.100	ND	90.1	75-125	1.72	20	
Nickel, total	0.142	0.0040	mg/L	0.100	0.0468	95.1	75-125	0.0705	20	
Selenium, total	0.1248	0.0040	mg/L	0.100	0.0252	99.7	75-125	2.34	20	
Silver, total	0.0918	0.0040	mg/L	0.100	ND	91.8	75-125	1.49	20	
Thallium, total	0.0911	0.0020	mg/L	0.100	0.0002	90.8	75-125	2.38	20	
Vanadium, total	0.0987	0.0200	mg/L	0.100	ND	98.7	75-125	1.81	20	
Zinc, total	0.417	0.0200	mg/L	0.100	0.323	94.2	75-125	0.987	20	
<b>Post Spike (1HA0951-PS1)</b>			Source: 1HA0649-01		Prepared: 01/22/24 09:10 Analyzed: 01/22/24 23:56					
Antimony, total	0.0839		mg/L	0.0800	0.0082	94.6	80-120			
Arsenic, total	0.0807		mg/L	0.0800	0.0019	98.5	80-120			
Barium, total	0.112		mg/L	0.0800	0.0306	102	80-120			
Beryllium, total	0.0619		mg/L	0.0800	0.00001	77.3	80-120			PS-01
Cadmium, total	0.0737		mg/L	0.0800	0.0005	91.5	80-120			
Chromium, total	0.0736		mg/L	0.0800	0.0007	91.1	80-120			
Cobalt, total	0.0815		mg/L	0.0800	0.0003	101	80-120			
Copper, total	0.0737		mg/L	0.0800	0.0012	90.6	80-120			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1HA0649

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HA0951 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Post Spike (1HA0951-PS1)</b>										
<b>Source: 1HA0649-01</b>			Prepared: 01/22/24 09:10 Analyzed: 01/22/24 23:56							
Lead, total	0.0727		mg/L	0.0800	0.00009	90.7	80-120			
Nickel, total	0.126		mg/L	0.0800	0.0459	101	80-120			
Selenium, total	0.1007		mg/L	0.0800	0.0247	95.0	80-120			
Silver, total	0.0742		mg/L	0.0800	0.0004	92.3	80-120			
Thallium, total	0.0745		mg/L	0.0800	0.0002	92.8	80-120			
Vanadium, total	0.0819		mg/L	0.0800	0.0055	95.4	80-120			
Zinc, total	0.401		mg/L	0.0800	0.317	105	80-120			

**Definitions**

- PS-01:** The post spike recovery was below acceptance limits. However, all other QC was acceptable.
- RL:** Reporting Limit
- RPD:** Relative Percent Difference

**Cooler Receipt Log**

Cooler ID: Default Cooler Temp: 3.6°C

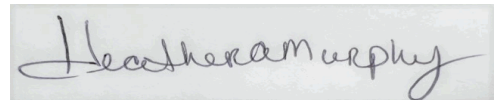
**Cooler Inspection Checklist**

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  
01/25/24 15:25

# CHAIN OF CUSTODY RECORD



600 E. 17th St. S.  
Newton, IA 50208  
Phone: 641-792-845  
Fax: 641-792-7986



HLW Engineering  
PM: Heather Murphy

66105  
1-7856  
1-6778

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

PAGE 1 OF 1

Page 8 of 8

**PRINT OR TYPE INFORMATION BELOW**

SAMPLER: TODD WHIPPLE  
SITE NAME: SCILA  
ADDRESS: \_\_\_\_\_  
CITY/ST/ZIP: Winterset, IA  
PHONE: \_\_\_\_\_

REPORT NO. \_\_\_\_\_  
NAME: TODD WHIPPLE  
COMPANY NAME: HLW GROUP  
ADDRESS: P.O. Box 314  
CITY/ST/ZIP: STORY CRY IA 50248  
PHONE: 515-733-4144  
FAX: 4146

BILL TO:  
NAME: Marcia Beeler, Mgr  
COMPANY NAME: SCILA  
ADDRESS: 2520 Hwy 92  
CITY/ST/ZIP: Winterset IA 50273  
PHONE: \_\_\_\_\_  
Keystone Quote No: \_\_\_\_\_  
(If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED										LAB USE ONLY				
																	LABORATORY WORK ORDER NO.	LABORATORY SAMPLE NUMBER			
GV-A	1-8-24	8:31	GV-A	1	W	G	✓													1HA0649	01
GV-B	1-8-24	8:29	GV-B	1	W	G	✓													3.6 on ice °C	02
GV-2	1-8-24	8:35	GV-2	1	W	G	✓														03

Relinquished by: (Signature) <u>Todd Whipple</u>	Date Time	Received by: (Signature) <u>Maher</u>	Date Time	Turn-Around: <input type="checkbox"/> Standard <input type="checkbox"/> Rush Contact Lab Prior to Submission
Relinquished by: (Signature)	Date Time	Received for Lab by: (Signature)	Date Time	Remarks:
			<u>1-10-24</u> <u>10:25</u>	







Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

Project Description

6022

For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248

---

Heather Murphy

Customer Relationship Specialist

Thursday, May 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 Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | [www.microbac.com](http://www.microbac.com)



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

HLW Engineering

Project Name: 6022

Todd Whipple  
PO Box 314  
Story City, IA 50248

Project / PO Number: N/A  
Received: 03/07/2024  
Reported: 05/02/2024

Sample Summary Report

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-21	1HC0539-01	Aqueous	GRAB		03/06/24 08:13	03/07/24 08:30
TILE-1	1HC0539-02	Aqueous	GRAB		03/06/24 13:13	03/07/24 08:30
TILE 2	1HC0539-03	Aqueous	GRAB		03/06/24 13:03	03/07/24 08:30
MW-11C	1HC0539-04	Aqueous	GRAB		03/06/24 09:28	03/07/24 08:30
MW-39D	1HC0539-05	Aqueous	GRAB		03/06/24 11:47	03/07/24 08:30
MW-41D	1HC0539-06	Aqueous	GRAB		03/06/24 12:12	03/07/24 08:30
MW-42D	1HC0539-07	Aqueous	GRAB		03/06/24 10:02	03/07/24 08:30
MW-17R	1HC0539-08	Aqueous	GRAB		03/06/24 08:40	03/07/24 08:30
MW-28	1HC0539-09	Aqueous	GRAB		03/06/24 16:33	03/07/24 08:30
MW-8B	1HC0539-10	Aqueous	GRAB		03/06/24 14:40	03/07/24 08:30
MW-9AR	1HC0539-11	Aqueous	GRAB		03/06/24 15:47	03/07/24 08:30
MW-14D	1HC0539-12	Aqueous	GRAB		03/06/24 13:35	03/07/24 08:30
MW-15R	1HC0539-13	Aqueous	GRAB		03/06/24 15:12	03/07/24 08:30
SW-2B	1HC0539-14	Aqueous	GRAB		03/06/24 17:01	03/07/24 08:30
SW-102	1HC0539-15	Aqueous	GRAB		03/06/24 16:55	03/07/24 08:30
Duplicate	1HC0539-16	Aqueous	GRAB		03/06/24 00:00	03/07/24 08:30
GU-2	1HC0539-17	Aqueous	GRAB		03/06/24 10:58	03/07/24 08:30
GU-A	1HC0539-18	Aqueous	GRAB		03/06/24 11:14	03/07/24 08:30
GU-B	1HC0539-19	Aqueous	GRAB		03/06/24 10:48	03/07/24 08:30
MW-44	1HC0539-20	Aqueous	GRAB		03/06/24 14:11	03/07/24 08:30
MW-45A	1HC0539-21	Aqueous	GRAB		03/06/24 10:21	03/07/24 08:30
MW-45D	1HC0539-22	Aqueous	GRAB		03/06/24 10:35	03/07/24 08:30
MW-32	1HC0539-23	Aqueous	GRAB		03/06/24 15:32	03/07/24 08:30



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

Analytical Testing Parameters

<b>Client Sample ID:</b>	MW-21	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 8:13
<b>Lab Sample ID:</b>	1HC0539-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-21	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 8:13
<b>Lab Sample ID:</b>	1HC0539-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: Dibromofluoromethane	102	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: Dibromofluoromethane	102	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: Toluene-d8	99.7	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: Toluene-d8	99.7	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1457	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1457	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Barium, total	<b>0.142</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0506	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0506	RVV



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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	TILE-1	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:13
<b>Lab Sample ID:</b>	1HC0539-02		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Chlorobenzene	<b>1.8</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b> TILE-1	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024 13:13
<b>Lab Sample ID:</b> 1HC0539-02	

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		03/12/24 0000	03/12/24 1520	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,4-Dichlorobenzene	<b>1.8</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: Dibromofluoromethane	102	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: Dibromofluoromethane	102	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: Toluene-d8	99.6	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: Toluene-d8	99.6	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: 4-Bromofluorobenzene	99.7	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1520	LJS
Surrogate: 4-Bromofluorobenzene	99.7	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1520	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Barium, total	<b>2.25</b>	0.100	mg/L	100		03/13/24 0855	03/15/24 1206	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Cobalt, total	<b>0.0025</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Nickel, total	<b>0.0435</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0543	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0543	RVV

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	TILE 2	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:03
<b>Lab Sample ID:</b>	1HC0539-03		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Vinyl Chloride	<b>1.0</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
cis-1,2-Dichloroethylene	<b>6.9</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b> TILE 2	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024 13:03
<b>Lab Sample ID:</b> 1HC0539-03	

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		03/12/24 0000	03/12/24 1543	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: Dibromofluoromethane	101	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: Dibromofluoromethane	101	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: Toluene-d8	98.6	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: Toluene-d8	98.6	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1543	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1543	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Barium, total	<b>0.528</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Cobalt, total	<b>0.0008</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Nickel, total	<b>0.0058</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0549	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0549	RVV





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-11C	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 9:28
<b>Lab Sample ID:</b>	1HC0539-04		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b> MW-11C	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024 9:28
<b>Lab Sample ID:</b> 1HC0539-04	

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		03/12/24 0000	03/12/24 1606	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: Dibromofluoromethane	101	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: Dibromofluoromethane	101	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: Toluene-d8	99.1	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: Toluene-d8	99.1	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: 4-Bromofluorobenzene	99.9	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1606	LJS
Surrogate: 4-Bromofluorobenzene	99.9	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1606	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Barium, total	<b>0.0754</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0555	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0555	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b> MW-39D	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024 11:47
<b>Lab Sample ID:</b> 1HC0539-05	

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Barium, total	<b>0.0345</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0602	RVV
Zinc, total	<b>0.0204</b>	0.0200	mg/L	4		03/13/24 0855	03/15/24 0602	RVV

<b>Client Sample ID:</b> MW-41D	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024 12:12
<b>Lab Sample ID:</b> 1HC0539-06	

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Barium, total	<b>0.0326</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Cobalt, total	<b>0.0010</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Nickel, total	<b>0.0043</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0608	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0608	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-42D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:02
<b>Lab Sample ID:</b>	1HC0539-07		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Arsenic, total	<b>0.0042</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Barium, total	<b>0.0370</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0614	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0614	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-17R	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 8:40
<b>Lab Sample ID:</b>	1HC0539-08		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
cis-1,2-Dichloroethylene	1.1	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-17R	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 8:40
<b>Lab Sample ID:</b>	1HC0539-08		

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		03/12/24 0000	03/12/24 1629	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: Dibromofluoromethane	100	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: Dibromofluoromethane	100	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: Toluene-d8	98.3	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: Toluene-d8	98.3	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1629	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1629	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Barium, total	<b>0.432</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Cobalt, total	<b>0.0040</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Nickel, total	<b>0.0189</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0620	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0620	RVV

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-28	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 16:33
<b>Lab Sample ID:</b>	1HC0539-09		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
cis-1,2-Dichloroethylene	<b>9.2</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b> MW-28	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024 16:33
<b>Lab Sample ID:</b> 1HC0539-09	

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		03/12/24 0000	03/12/24 1652	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: Dibromofluoromethane	99.7	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: Dibromofluoromethane	99.7	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: Toluene-d8	99.2	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: Toluene-d8	99.2	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1652	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1652	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Arsenic, total	<b>0.0597</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Barium, total	<b>1.39</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Cobalt, total	<b>0.0727</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Nickel, total	<b>0.0269</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0626	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0626	RVV





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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-8B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:40
<b>Lab Sample ID:</b>	1HC0539-10		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-8B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:40
<b>Lab Sample ID:</b>	1HC0539-10		

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		03/12/24 0000	03/12/24 1715	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: Dibromofluoromethane	99.8	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: Dibromofluoromethane	99.8	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: Toluene-d8	99.2	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: Toluene-d8	99.2	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1715	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1715	LJS

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	<b>695</b>	50	mg/L	1		03/11/24 1043	03/11/24 1340	BSS
<b>SM 4500 H+ B</b>								
pH	<b>6.6</b>	0.5	pH	1	<b>I-03</b>	03/12/24 1341	03/12/24 1433	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Arsenic, total	<b>0.0180</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Barium, total	<b>0.806</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Cobalt, total	<b>0.0123</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Nickel, total	<b>0.0067</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0632	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0632	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-9AR	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 15:47
<b>Lab Sample ID:</b>	1HC0539-11		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Vinyl Chloride	<b>45.1</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
trans-1,2-Dichloroethylene	<b>5.1</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,1-Dichloroethane	<b>1.3</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
cis-1,2-Dichloroethylene	<b>58.9</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Benzene	<b>2.4</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Trichloroethylene	<b>1.7</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,2-Dichloropropane	<b>1.1</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Chlorobenzene	<b>5.8</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-9AR	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 15:47
<b>Lab Sample ID:</b>	1HC0539-11		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,4-Dichlorobenzene	<b>1.0</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: Dibromofluoromethane	100	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: Dibromofluoromethane	100	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: Toluene-d8	99.0	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: Toluene-d8	99.0	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1737	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1737	LJS

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	<b>662</b>	50	mg/L	1		03/11/24 1043	03/11/24 1340	BSS
<b>SM 4500 H+ B</b>								
pH	<b>6.6</b>	0.5	pH	1	<b>I-03</b>	03/12/24 1341	03/12/24 1433	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Arsenic, total	<b>0.0070</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Barium, total	<b>0.653</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Cadmium, total	<b>0.0013</b>	0.0008	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Cobalt, total	<b>0.0043</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Nickel, total	<b>0.0195</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0651	RVV
Zinc, total	<b>0.0446</b>	0.0200	mg/L	4		03/13/24 0855	03/15/24 0651	RVV

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:35
<b>Lab Sample ID:</b>	1HC0539-12		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Dichlorodifluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Acrolein	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Acetonitrile	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
2,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:35
<b>Lab Sample ID:</b>	1HC0539-12		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Allyl chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Chloroprene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Propionitrile	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: Dibromofluoromethane	98.7	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: Dibromofluoromethane	98.7	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: Toluene-d8	98.8	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: Toluene-d8	98.8	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: Toluene-d8	98.8	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1800	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1800	LJS

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 8015C</b>								
Isobutanol	<1.0	1.0	mg/L	1		03/14/24 1208	03/14/24 2013	PDS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3520C/EPA 8270C</b>								
N-Nitrosodimethylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Phenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:35
<b>Lab Sample ID:</b>	1HC0539-12		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Chlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Benzyl Alcohol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Acetophenone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
o-Toluidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Hexachloroethane	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Nitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Isophorone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Nitrophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Naphthalene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4-Chloroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Hexachloropropene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Hexachlorobutadiene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Methylnaphthalene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Isosafrole	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Safrole	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Chloronaphthalene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Nitroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Dimethylphthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Acenaphthylene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
3-Nitroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Acenaphthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:35
<b>Lab Sample ID:</b>	1HC0539-12		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4-Nitrophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Dibenzofuran	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Pentachlorobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
1-Naphthylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Naphthylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Diethyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Fluorene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4-Nitroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Diphenylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Azobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Diallate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Phenacetin	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
4-Aminobiphenyl	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Pentachlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Pronamide	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Phenanthrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Methapyrilene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Fluoranthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Isodrin	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Chlorobenzilate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Pyrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Benzo(a)anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Chrysene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Bis(2-Ethylhexyl) Phthalate	10	6	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Kepone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
2-Acetylamino fluorene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:35
<b>Lab Sample ID:</b>	1HC0539-12		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(b)Fluoranthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
3-Methylcholanthrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1304	EPP
Surrogate: 2-Fluorophenol	63.0	Limit: 24-136	% Rec	1		03/13/24 1405	03/25/24 1304	EPP
Surrogate: Phenol-d6	66.3	Limit: 15-140	% Rec	1		03/13/24 1405	03/25/24 1304	EPP
Surrogate: Nitrobenzene-d5	68.7	Limit: 29-130	% Rec	1		03/13/24 1405	03/25/24 1304	EPP
Surrogate: 2-Fluorobiphenyl	60.9	Limit: 23-113	% Rec	1		03/13/24 1405	03/25/24 1304	EPP
Surrogate: 2,4,6-Tribromophenol	79.8	Limit: 15-139	% Rec	1		03/13/24 1405	03/25/24 1304	EPP
Surrogate: Terphenyl-dl4	67.6	Limit: 27-141	% Rec	1		03/13/24 1405	03/25/24 1304	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8141</b>								
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Thionazin	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Phorate	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Dimethoate	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Disulfoton	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Parathion	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Famphur	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1406	EPP
Surrogate: 2-Nitro-m-xylene	59.5	Limit: 38-122	% Rec	1		03/13/24 1321	03/25/24 1406	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 8151A</b>								
2,4-D	<2.0	2.0	ug/L	1		03/12/24 1254	03/18/24 1654	EPP
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		03/12/24 1254	03/18/24 1654	EPP
2,4,5-T	<0.5	0.5	ug/L	1		03/12/24 1254	03/18/24 1654	EPP
Dinoseb	<0.5	0.5	ug/L	1		03/12/24 1254	03/18/24 1654	EPP
Surrogate: 2,5-Dichlorobenzoic Acid	122	Limit: 31-116	% Rec	1	S-07	03/12/24 1254	03/18/24 1654	EPP

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8081</b>								
Alpha-BHC	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Beta-BHC	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Heptachlor	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:35
<b>Lab Sample ID:</b>	1HC0539-12		

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Delta-BHC	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Aldrin	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Endosulfan I	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Dieldrin	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Endrin	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Endosulfan II	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Methoxychlor	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Chlordane	<0.10	0.10	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Toxaphene	<0.20	0.20	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1448	EPP
Surrogate: Tetrachloro-m-xylene	70.9	Limit: 10-121	% Rec	1		03/13/24 1319	03/25/24 1448	EPP

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8082</b>								
Arochlor 1016	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1448	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1448	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1448	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1448	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1448	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1448	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1448	EPP
Surrogate: Tetrachloro-m-xylene	69.8	Limit: 38-121	% Rec	1		03/13/24 1320	03/25/24 1448	EPP
Surrogate: Decachlorobiphenyl	55.2	Limit: 25-119	% Rec	1		03/13/24 1320	03/25/24 1448	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 376.2</b>								
Sulfide, total	<0.10	0.10	mg/L	1		03/08/24 1534	03/08/24 1617	CHP
<b>EPA 9010B</b>								
Cyanide, total	<0.005	0.005	mg/L	1		03/11/24 1649	03/12/24 1527	CHP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0022	0.0020	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Barium, total	0.0176	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 13:35
<b>Lab Sample ID:</b>	1HC0539-12		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Cobalt, total	<b>0.0047</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Tin, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0657	RVV
<b>EPA 7470A</b>								
Mercury, total	<0.00050	0.00050	mg/L	1		03/11/24 1535	03/12/24 1638	JAR



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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-15R	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 15:12
<b>Lab Sample ID:</b>	1HC0539-13		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-15R	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 15:12
<b>Lab Sample ID:</b>	1HC0539-13		

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		03/12/24 0000	03/12/24 1823	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: Dibromofluoromethane	98.2	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: Dibromofluoromethane	98.2	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: Toluene-d8	98.3	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: Toluene-d8	98.3	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: 4-Bromofluorobenzene	99.6	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1823	LJS
Surrogate: 4-Bromofluorobenzene	99.6	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1823	LJS

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	<b>541</b>	50	mg/L	1		03/11/24 1043	03/11/24 1340	BSS
<b>SM 4500 H+ B</b>								
pH	<b>6.6</b>	0.5	pH	1	<b>I-03</b>	03/12/24 1341	03/12/24 1433	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Arsenic, total	<b>0.0572</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Barium, total	<b>0.673</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Cobalt, total	<b>0.0011</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0703	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0703	RVV



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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	SW-2B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 17:01
<b>Lab Sample ID:</b>	1HC0539-14		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	SW-2B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 17:01
<b>Lab Sample ID:</b>	1HC0539-14		

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		03/12/24 0000	03/12/24 1846	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: Dibromofluoromethane	97.3	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: Dibromofluoromethane	97.3	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: Toluene-d8	98.5	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: Toluene-d8	98.5	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: 4-Bromofluorobenzene	99.8	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1846	LJS
Surrogate: 4-Bromofluorobenzene	99.8	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1846	LJS



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	SW-102	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 16:55
<b>Lab Sample ID:</b>	1HC0539-15		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b> SW-102	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024 16:55
<b>Lab Sample ID:</b> 1HC0539-15	

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		03/12/24 0000	03/12/24 1909	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: Dibromofluoromethane	97.5	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: Dibromofluoromethane	97.5	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: Toluene-d8	98.1	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: Toluene-d8	98.1	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: 4-Bromofluorobenzene	98.4	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1909	LJS
Surrogate: 4-Bromofluorobenzene	98.4	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1909	LJS

<b>Client Sample ID:</b> Duplicate	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 03/06/2024
<b>Lab Sample ID:</b> 1HC0539-16	

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Arsenic, total	<b>0.0679</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Barium, total	<b>1.48</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Cobalt, total	<b>0.0797</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Nickel, total	<b>0.0294</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0709	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0709	RVV



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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	GU-2	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:58
<b>Lab Sample ID:</b>	1HC0539-17		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	GU-2	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:58
<b>Lab Sample ID:</b>	1HC0539-17		

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		03/12/24 0000	03/12/24 1932	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: Dibromofluoromethane	96.4	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: Dibromofluoromethane	96.4	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: Toluene-d8	98.3	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: Toluene-d8	98.3	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: 4-Bromofluorobenzene	101	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1932	LJS
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1932	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<b>0.0020</b>	0.0020	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Barium, total	<b>0.183</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Cobalt, total	<b>0.0008</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Nickel, total	<b>0.0189</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Selenium, total	<b>0.168</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0715	RVV
Zinc, total	<b>0.691</b>	0.0200	mg/L	4		03/13/24 0855	03/15/24 0715	RVV

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	GU-A	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 11:14
<b>Lab Sample ID:</b>	1HC0539-18		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	GU-A	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 11:14
<b>Lab Sample ID:</b>	1HC0539-18		

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		03/12/24 0000	03/12/24 1955	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: Dibromofluoromethane	94.8	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: Dibromofluoromethane	94.8	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: 1,2-Dichloroethane-d4	98.4	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: 1,2-Dichloroethane-d4	98.4	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: Toluene-d8	96.6	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: Toluene-d8	96.6	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: 4-Bromofluorobenzene	99.5	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 1955	LJS
Surrogate: 4-Bromofluorobenzene	99.5	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 1955	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<b>0.0056</b>	0.0020	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Barium, total	<b>0.0258</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Nickel, total	<b>0.0369</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Selenium, total	<b>0.0196</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0722	RVV
Zinc, total	<b>0.877</b>	0.0200	mg/L	4		03/13/24 0855	03/15/24 0722	RVV

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	GU-B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:48
<b>Lab Sample ID:</b>	1HC0539-19		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	GU-B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:48
<b>Lab Sample ID:</b>	1HC0539-19		

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		03/12/24 0000	03/12/24 2017	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: Dibromofluoromethane	93.7	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: Dibromofluoromethane	93.7	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: 1,2-Dichloroethane-d4	94.9	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: 1,2-Dichloroethane-d4	94.9	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: Toluene-d8	98.3	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: Toluene-d8	98.3	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 2017	LJS
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 2017	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<b>0.0078</b>	0.0020	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Barium, total	<b>0.0778</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Cobalt, total	<b>0.0017</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Nickel, total	<b>0.0410</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Selenium, total	<b>0.0284</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0728	RVV
Zinc, total	<b>0.0932</b>	0.0200	mg/L	4		03/13/24 0855	03/15/24 0728	RVV

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-44	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:11
<b>Lab Sample ID:</b>	1HC0539-20		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Dichlorodifluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Acrolein	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Acetonitrile	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
2,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-44	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:11
<b>Lab Sample ID:</b>	1HC0539-20		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Allyl chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Chloroprene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Propionitrile	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: Dibromofluoromethane	93.9	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: Dibromofluoromethane	93.9	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: 1,2-Dichloroethane-d4	97.2	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: 1,2-Dichloroethane-d4	97.2	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: 1,2-Dichloroethane-d4	97.2	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: Toluene-d8	97.6	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: Toluene-d8	97.6	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: Toluene-d8	97.6	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: 4-Bromofluorobenzene	99.8	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: 4-Bromofluorobenzene	99.8	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 2040	LJS
Surrogate: 4-Bromofluorobenzene	99.8	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 2040	LJS

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 8015C</b>								
Isobutanol	<1.0	1.0	mg/L	1		03/14/24 1208	03/14/24 2051	PDS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3520C/EPA 8270C</b>								
N-Nitrosodimethylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Phenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP



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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-44	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:11
<b>Lab Sample ID:</b>	1HC0539-20		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Chlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Benzyl Alcohol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Acetophenone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
o-Toluidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Hexachloroethane	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Nitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Isophorone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Nitrophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Naphthalene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4-Chloroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Hexachloropropene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Hexachlorobutadiene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Methylnaphthalene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Isosafrole	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Safrole	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Chloronaphthalene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Nitroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Dimethylphthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Acenaphthylene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
3-Nitroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Acenaphthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-44	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:11
<b>Lab Sample ID:</b>	1HC0539-20		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4-Nitrophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Dibenzofuran	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Pentachlorobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
1-Naphthylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Naphthylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Diethyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Fluorene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4-Nitroaniline	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Diphenylamine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Azobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Diallate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Phenacetin	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
4-Aminobiphenyl	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Pentachlorophenol	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Pronamide	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Phenanthrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Methapyrilene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Fluoranthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Isodrin	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Chlorobenzilate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Pyrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Benzo(a)anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Chrysene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Bis(2-Ethylhexyl) Phthalate	14	6	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Kepone	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
2-Acetylamino fluorene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-44	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:11
<b>Lab Sample ID:</b>	1HC0539-20		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(b)Fluoranthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
3-Methylcholanthrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		03/13/24 1405	03/25/24 1328	EPP
Surrogate: 2-Fluorophenol	63.8	Limit: 24-136	% Rec	1		03/13/24 1405	03/25/24 1328	EPP
Surrogate: Phenol-d6	64.0	Limit: 15-140	% Rec	1		03/13/24 1405	03/25/24 1328	EPP
Surrogate: Nitrobenzene-d5	64.8	Limit: 29-130	% Rec	1		03/13/24 1405	03/25/24 1328	EPP
Surrogate: 2-Fluorobiphenyl	49.4	Limit: 23-113	% Rec	1		03/13/24 1405	03/25/24 1328	EPP
Surrogate: 2,4,6-Tribromophenol	67.4	Limit: 15-139	% Rec	1		03/13/24 1405	03/25/24 1328	EPP
Surrogate: Terphenyl-dl4	36.1	Limit: 27-141	% Rec	1		03/13/24 1405	03/25/24 1328	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8141</b>								
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Thionazin	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Phorate	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Dimethoate	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Disulfoton	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Parathion	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Famphur	<0.4	0.4	ug/L	1		03/13/24 1321	03/25/24 1504	EPP
Surrogate: 2-Nitro-m-xylene	62.6	Limit: 38-122	% Rec	1		03/13/24 1321	03/25/24 1504	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 8151A</b>								
2,4-D	<2.0	2.0	ug/L	1		03/12/24 1254	03/18/24 1727	EPP
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		03/12/24 1254	03/18/24 1727	EPP
2,4,5-T	<0.5	0.5	ug/L	1		03/12/24 1254	03/18/24 1727	EPP
Dinoseb	<0.5	0.5	ug/L	1		03/12/24 1254	03/18/24 1727	EPP
Surrogate: 2,5-Dichlorobenzoic Acid	101	Limit: 31-116	% Rec	1		03/12/24 1254	03/18/24 1727	EPP

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8081</b>								
Alpha-BHC	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Beta-BHC	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Heptachlor	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP



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<b>Lab Sample ID:</b>	1HC0539-20		

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Delta-BHC	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Aldrin	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Endosulfan I	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Dieldrin	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Endrin	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Endosulfan II	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Methoxychlor	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Chlordane	<0.10	0.10	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Toxaphene	<0.20	0.20	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		03/13/24 1319	03/25/24 1503	EPP
Surrogate: Tetrachloro-m-xylene	81.4	Limit: 10-121	% Rec	1		03/13/24 1319	03/25/24 1503	EPP

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3510C/EPA 8082</b>								
Arochlor 1016	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1503	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1503	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1503	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1503	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1503	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1503	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		03/13/24 1320	03/25/24 1503	EPP
Surrogate: Tetrachloro-m-xylene	78.7	Limit: 38-121	% Rec	1		03/13/24 1320	03/25/24 1503	EPP
Surrogate: Decachlorobiphenyl	75.5	Limit: 25-119	% Rec	1		03/13/24 1320	03/25/24 1503	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 376.2</b>								
Sulfide, total	<1.5	1.5	mg/L	1	R-01	03/08/24 1534	03/08/24 1617	CHP
<b>EPA 9010B</b>								
Cyanide, total	<0.005	0.005	mg/L	1		03/11/24 1649	03/12/24 1527	CHP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Barium, total	0.795	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV



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<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 14:11
<b>Lab Sample ID:</b>	1HC0539-20		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Cobalt, total	<b>0.0007</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Tin, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0734	RVV
<b>EPA 7470A</b>								
Mercury, total	<0.00050	0.00050	mg/L	1		03/11/24 1535	03/12/24 1645	JAR



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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-45A	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:21
<b>Lab Sample ID:</b>	1HC0539-21		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-45A	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:21
<b>Lab Sample ID:</b>	1HC0539-21		

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		03/12/24 0000	03/12/24 2103	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: Dibromofluoromethane	92.4	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: Dibromofluoromethane	92.4	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: 1,2-Dichloroethane-d4	96.3	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: 1,2-Dichloroethane-d4	96.3	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: Toluene-d8	97.1	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: Toluene-d8	97.1	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: 4-Bromofluorobenzene	98.9	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 2103	LJS
Surrogate: 4-Bromofluorobenzene	98.9	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 2103	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Barium, total	<b>0.0893</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Nickel, total	<b>0.0043</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0740	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0740	RVV





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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-45D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:35
<b>Lab Sample ID:</b>	1HC0539-22		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-45D	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 10:35
<b>Lab Sample ID:</b>	1HC0539-22		

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		03/12/24 0000	03/12/24 2126	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: Dibromofluoromethane	92.6	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: Dibromofluoromethane	92.6	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: 1,2-Dichloroethane-d4	96.4	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: 1,2-Dichloroethane-d4	96.4	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: Toluene-d8	97.2	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: Toluene-d8	97.2	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: 4-Bromofluorobenzene	99.2	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 2126	LJS
Surrogate: 4-Bromofluorobenzene	99.2	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 2126	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<b>0.0020</b>	0.0020	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Barium, total	<b>0.0323</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Cobalt, total	<b>0.0021</b>	0.0004	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Copper, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Lead, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Nickel, total	<b>0.0052</b>	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Silver, total	<0.0040	0.0040	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0746	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		03/13/24 0855	03/15/24 0746	RVV

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-32	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 15:32
<b>Lab Sample ID:</b>	1HC0539-23		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Bromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Chloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Acetone	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Chloroform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Benzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Dibromomethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Toluene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Chlorobenzene	<b>2.2</b>	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Xylenes, total	<2.0	2.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Styrene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Bromoform	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS

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CERTIFICATE OF ANALYSIS

1HC0539

<b>Client Sample ID:</b>	MW-32	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	03/06/2024 15:32
<b>Lab Sample ID:</b>	1HC0539-23		

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		03/12/24 0000	03/12/24 2149	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: Dibromofluoromethane	90.3	Limit: 80-126	% Rec	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: Dibromofluoromethane	90.3	Limit: 75-136	% Rec	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: 1,2-Dichloroethane-d4	94.5	Limit: 63-138	% Rec	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: 1,2-Dichloroethane-d4	94.5	Limit: 61-142	% Rec	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: Toluene-d8	97.1	Limit: 87-116	% Rec	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: Toluene-d8	97.1	Limit: 82-121	% Rec	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: 4-Bromofluorobenzene	98.5	Limit: 85-111	% Rec	1		03/12/24 0000	03/12/24 2149	LJS
Surrogate: 4-Bromofluorobenzene	98.5	Limit: 80-116	% Rec	1		03/12/24 0000	03/12/24 2149	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Arsenic, total	<0.0040	0.0040	mg/L	4		03/11/24 0851	03/12/24 0506	RVV



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CERTIFICATE OF ANALYSIS

1HC0539

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 376.2	1HC0492	1HC0539-20	MW-44
		1HC0492-BS1	
		1HC0492-MS1	1HC0490-01
		1HC0539-12	MW-14D
		1HC0492-BLK1	
		1HC0492-MSD1	1HC0490-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HC0520	1HC0520-BLK1	
		1HC0520-BS1	
		1HC0539-23	MW-32
		1HC0520-MS1	1HC0590-01
		1HC0520-MSD1	1HC0590-01
		1HC0520-PS1	1HC0590-01

Method	Batch	Laboratory ID	Client / Source ID
2320B	1HC0553	1HC0539-13	MW-15R
		1HC0539-10	MW-8B
		1HC0553-BS1	
		1HC0553-MSD1	1HC0539-10
		1HC0539-11	MW-9AR
		1HC0553-MS1	1HC0539-10

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	1HC0594	1HC0594-BLK1	
		1HC0594-BS1	
		1HC0539-12	MW-14D
		1HC0594-MS1	1HC0539-12
		1HC0594-MSD1	1HC0539-12
		1HC0539-20	MW-44

Method	Batch	Laboratory ID	Client / Source ID
EPA 9010B	1HC0610	1HC0539-12	MW-14D
		1HC0610-MSD1	1HC0190-02
		1HC0610-MS1	1HC0190-02
		1HC0610-BS1	
		1HC0610-BLK1	

Method	Batch	Laboratory ID	Client / Source ID
		1HC0539-20	MW-44



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CERTIFICATE OF ANALYSIS

1HC0539

EPA 8151A	1HC0643	1HC0643-BLK1	
		1HC0643-BS1	
		1HC0643-MS1	1HC0199-01
		1HC0643-MSD1	1HC0199-01
		1HC0539-12	MW-14D
		1HC0539-20	MW-44

Method	Batch	Laboratory ID	Client / Source ID
SM 4500 H+ B	1HC0645	1HC0645-SRM1	
		1HC0645-SRM2	
		1HC0539-11	MW-9AR
		1HC0539-10	MW-8B
		1HC0539-13	MW-15R
		1HC0645-DUP1	1HC0539-10

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HC0683	1HC0683-BS1	
		1HC0683-BSD1	
		1HC0683-BLK1	
		1HC0539-01	MW-21
		1HC0539-02	TILE-1
		1HC0539-03	TILE 2
		1HC0539-04	MW-11C
		1HC0539-08	MW-17R
		1HC0539-09	MW-28
		1HC0539-10	MW-8B
		1HC0539-11	MW-9AR
		1HC0539-12	MW-14D
		1HC0539-13	MW-15R
		1HC0539-14	SW-2B
		1HC0539-15	SW-102
		1HC0539-17	GU-2
		1HC0539-18	GU-A
		1HC0539-19	GU-B
		1HC0539-20	MW-44
		1HC0539-21	MW-45A
		1HC0539-22	MW-45D
		1HC0539-23	MW-32

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HC0698	1HC0698-BLK1	
		1HC0698-BS1	
		1HC0539-01	MW-21
		1HC0698-MS1	1HC0539-01



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CERTIFICATE OF ANALYSIS

1HC0539

EPA 6020A	1HC0698	1HC0698-MSD1	1HC0539-01
		1HC0698-PS1	1HC0539-01
		1HC0539-02	TILE-1
		1HC0539-03	TILE 2
		1HC0539-04	MW-11C
		1HC0539-05	MW-39D
		1HC0539-06	MW-41D
		1HC0539-07	MW-42D
		1HC0539-08	MW-17R
		1HC0539-09	MW-28
		1HC0539-10	MW-8B
		1HC0539-11	MW-9AR
		1HC0539-12	MW-14D
		1HC0539-13	MW-15R
		1HC0539-16	Duplicate
		1HC0539-17	GU-2
		1HC0539-18	GU-A
		1HC0539-19	GU-B
		1HC0539-20	MW-44
		1HC0539-21	MW-45A
		1HC0539-22	MW-45D
		1HC0539-02RE1	TILE-1

Method	Batch	Laboratory ID	Client / Source ID
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EPA 8081	1HC0740	1HC0740-BLK1	
		1HC0740-BS1	
		1HC0740-BSD1	
		1HC0539-12	MW-14D
		1HC0539-20	MW-44

Method	Batch	Laboratory ID	Client / Source ID
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EPA 8082	1HC0741	1HC0741-BLK1	
		1HC0741-BS1	
		1HC0741-BSD1	
		1HC0539-12	MW-14D
		1HC0539-20	MW-44

Method	Batch	Laboratory ID	Client / Source ID
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EPA 8141	1HC0742	1HC0742-BLK1	
		1HC0539-12	MW-14D
		1HC0539-20	MW-44
		1HC0742-BS1	
		1HC0742-BSD1	



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1HC0539

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1HC0746	1HC0746-BLK1	
		1HC0746-BS1	
		1HC0746-BSD1	
		1HC0539-12	MW-14D
		1HC0539-20	MW-44

Method	Batch	Laboratory ID	Client / Source ID
EPA 8015C	1HC0813	1HC0813-BS1	
		1HC0813-BLK1	
		1HC0539-12	MW-14D
		1HC0539-20	MW-44
		1HC0813-MS1	1HC0190-02
		1HC0813-MSD1	1HC0190-02

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
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										

Blank (1HC0683-BLK1)				Prepared: 03/12/24 00:00 Analyzed: 03/12/24 14:34						
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							





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HC0683-BLK1)</b>										
Prepared: 03/12/24 00:00 Analyzed: 03/12/24 14:34										
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
2,2-Dichloropropane	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<5.0	5.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1-Dichloropropene	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
Ethyl Methacrylate	<10.0	10.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HC0683-BLK1)</b>										
Prepared: 03/12/24 00:00 Analyzed: 03/12/24 14:34										
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
1,3-Dichloropropane	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,3-Dichlorobenzene	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L							
Allyl chloride	<1.0	1.0	ug/L							
Chloroprene	<1.0	1.0	ug/L							
Methacrylonitrile	<1.0	1.0	ug/L							
Methyl Methacrylate	<1.0	1.0	ug/L							
Propionitrile	<10.0	10.0	ug/L							

Surrogate: Dibromofluoromethane

50.9

ug/L

50.2

101

80-126

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0683 - EPA 5030B - EPA 8260B

Blank (1HC0683-BLK1)

Prepared: 03/12/24 00:00 Analyzed: 03/12/24 14:34

Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		101	80-126			
Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		101	80-126			
Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		101	75-136			
Surrogate: 1,2-Dichloroethane-d4	52.0		ug/L	50.1		104	63-138			
Surrogate: 1,2-Dichloroethane-d4	52.0		ug/L	50.1		104	63-138			
Surrogate: 1,2-Dichloroethane-d4	52.0		ug/L	50.1		104	63-138			
Surrogate: 1,2-Dichloroethane-d4	52.0		ug/L	50.1		104	63-138			
Surrogate: 1,2-Dichloroethane-d4	52.0		ug/L	50.1		104	61-142			
Surrogate: Toluene-d8	49.9		ug/L	50.4		99.0	87-116			
Surrogate: Toluene-d8	49.9		ug/L	50.4		99.0	87-116			
Surrogate: Toluene-d8	49.9		ug/L	50.4		99.0	87-116			
Surrogate: Toluene-d8	49.9		ug/L	50.4		99.0	87-116			
Surrogate: Toluene-d8	49.9		ug/L	50.4		99.0	82-121			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.1		101	85-111			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.1		101	85-111			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.1		101	85-111			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.1		101	85-111			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.1		101	80-116			

LCS (1HC0683-BS1)

Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:23

Dichlorodifluoromethane	32.33	1.0	ug/L	31.6		102	44-139			
Chloromethane	35.05	1.0	ug/L	30.6		114	56-152			
Chloromethane	35.05	1.0	ug/L	30.6		114	63-155			
Vinyl Chloride	31.01	1.0	ug/L	30.2		103	62-151			
Vinyl Chloride	31.01	1.0	ug/L	30.2		103	70-154			
Bromomethane	36.65	1.0	ug/L	28.8		127	61-162			
Bromomethane	36.65	1.0	ug/L	28.8		127	52-176			
Chloroethane	33.11	1.0	ug/L	31.6		105	69-138			
Chloroethane	33.11	1.0	ug/L	31.6		105	72-148			
Trichlorofluoromethane	34.73	1.0	ug/L	32.6		107	70-143			
Trichlorofluoromethane	34.73	1.0	ug/L	32.6		107	70-152			
Acrolein	97.54	10.0	ug/L	100		97.3	27-144			
1,1-Dichloroethylene	57.95	1.0	ug/L	50.0		116	76-140			
1,1-Dichloroethylene	57.95	1.0	ug/L	50.0		116	70-148			
Acetone	109.8	10.0	ug/L	102		108	51-156			
Acetone	109.8	10.0	ug/L	102		108	43-172			
Methyl Iodide	125.7	2.0	ug/L	99.7		126	81-166			
Methyl Iodide	125.7	1.0	ug/L	99.7		126	69-170			
Carbon Disulfide	108.4	1.0	ug/L	101		107	76-147			
Carbon Disulfide	108.4	1.0	ug/L	101		107	72-162			
Acetonitrile	106.0	10.0	ug/L	101		105	46-156			
Methylene Chloride	49.50	5.0	ug/L	50.0		99.0	67-139			
Methylene Chloride	49.50	5.0	ug/L	50.0		99.0	68-142			
Acrylonitrile	97.38	5.0	ug/L	100		97.0	67-144			
Acrylonitrile	97.38	5.0	ug/L	100		97.0	67-144			

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1HC0683-BS1)</b>										
				Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:23						
trans-1,2-Dichloroethylene	50.95	1.0	ug/L	50.0		102	72-135			
trans-1,2-Dichloroethylene	50.95	1.0	ug/L	50.0		102	66-148			
1,1-Dichloroethane	49.97	1.0	ug/L	50.0		99.9	72-129			
1,1-Dichloroethane	49.97	1.0	ug/L	50.0		99.9	66-143			
Vinyl Acetate	109.7	5.0	ug/L	102		108	24-144			
Vinyl Acetate	109.7	5.0	ug/L	102		108	43-153			
2,2-Dichloropropane	48.73	1.0	ug/L	50.0		97.5	64-131			
cis-1,2-Dichloroethylene	51.98	1.0	ug/L	49.5		105	81-137			
cis-1,2-Dichloroethylene	51.98	1.0	ug/L	49.5		105	71-149			
2-Butanone (MEK)	116.6	5.0	ug/L	103		113	47-149			
2-Butanone (MEK)	116.6	10.0	ug/L	103		113	52-159			
Bromochloromethane	51.23	1.0	ug/L	50.0		102	75-138			
Bromochloromethane	51.23	1.0	ug/L	50.0		102	69-143			
Chloroform	48.34	1.0	ug/L	50.0		96.7	78-131			
Chloroform	48.34	1.0	ug/L	50.0		96.7	69-144			
1,1,1-Trichloroethane	46.15	1.0	ug/L	50.0		92.3	67-121			
1,1,1-Trichloroethane	46.15	1.0	ug/L	50.0		92.3	62-129			
1,1-Dichloropropene	50.26	1.0	ug/L	50.0		101	80-131			
Carbon Tetrachloride	50.15	1.0	ug/L	50.0		100	71-131			
Carbon Tetrachloride	50.15	1.0	ug/L	50.0		100	63-141			
Benzene	48.46	1.0	ug/L	50.0		96.9	77-130			
Benzene	48.46	1.0	ug/L	50.0		96.9	71-134			
1,2-Dichloroethane	47.85	1.0	ug/L	50.0		95.7	76-126			
1,2-Dichloroethane	47.85	1.0	ug/L	50.0		95.7	72-132			
Trichloroethylene	48.03	1.0	ug/L	50.0		96.1	80-124			
Trichloroethylene	48.03	1.0	ug/L	50.0		96.1	71-135			
1,2-Dichloropropane	47.97	1.0	ug/L	50.0		95.9	81-125			
1,2-Dichloropropane	47.97	1.0	ug/L	50.0		95.9	69-136			
Dibromomethane	52.08	1.0	ug/L	50.0		104	84-134			
Dibromomethane	52.08	1.0	ug/L	50.0		104	73-147			
Bromodichloromethane	46.79	1.0	ug/L	50.0		93.6	78-121			
Bromodichloromethane	46.79	1.0	ug/L	50.0		93.6	68-129			
cis-1,3-Dichloropropene	47.15	1.0	ug/L	50.3		93.7	78-120			
cis-1,3-Dichloropropene	47.15	1.0	ug/L	50.3		93.7	65-134			
4-Methyl-2-pentanone (MIBK)	100.5	5.0	ug/L	101		99.1	67-143			
4-Methyl-2-pentanone (MIBK)	100.5	5.0	ug/L	101		99.1	58-147			
Toluene	47.37	1.0	ug/L	50.0		94.7	77-130			
Toluene	47.37	1.0	ug/L	50.0		94.7	72-133			
trans-1,3-Dichloropropene	47.32	1.0	ug/L	50.4		93.8	77-123			
trans-1,3-Dichloropropene	47.32	1.0	ug/L	50.4		93.8	67-130			
Ethyl Methacrylate	97.64	10.0	ug/L	101		97.1	52-148			
1,1,2-Trichloroethane	48.49	1.0	ug/L	50.0		97.0	78-124			
1,1,2-Trichloroethane	48.49	1.0	ug/L	50.0		97.0	69-135			

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CERTIFICATE OF ANALYSIS

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1HC0683-BS1)</b>										
				Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:23						
Tetrachloroethylene	48.46	1.0	ug/L	50.0		96.9	73-124			
Tetrachloroethylene	48.46	1.0	ug/L	50.0		96.9	69-130			
1,3-Dichloropropane	52.48	1.0	ug/L	50.0		105	78-131			
2-Hexanone (MBK)	102.0	5.0	ug/L	103		98.7	57-145			
2-Hexanone (MBK)	102.0	5.0	ug/L	103		98.7	55-144			
Dibromochloromethane	49.60	1.0	ug/L	49.5		100	78-126			
Dibromochloromethane	49.60	1.0	ug/L	49.5		100	73-127			
1,2-Dibromoethane	49.59	1.0	ug/L	50.0		99.2	69-126			
1,2-Dibromoethane	49.59	1.0	ug/L	50.0		99.2	67-132			
Chlorobenzene	47.72	1.0	ug/L	50.0		95.4	76-120			
Chlorobenzene	47.72	1.0	ug/L	50.0		95.4	72-123			
1,1,1,2-Tetrachloroethane	50.03	1.0	ug/L	50.0		100	81-122			
1,1,1,2-Tetrachloroethane	50.03	1.0	ug/L	50.0		100	73-127			
Ethylbenzene	47.01	1.0	ug/L	50.0		94.0	74-121			
Ethylbenzene	47.01	1.0	ug/L	50.0		94.0	71-127			
Xylenes, total	142.1	2.0	ug/L	150		94.8	75-122			
Xylenes, total	142.1	2.0	ug/L	150		94.8	74-127			
Styrene	47.54	1.0	ug/L	50.0		95.1	76-119			
Styrene	47.54	1.0	ug/L	50.0		95.1	66-126			
Bromoform	49.86	1.0	ug/L	50.0		99.7	74-127			
Bromoform	49.86	1.0	ug/L	50.0		99.7	68-130			
1,2,3-Trichloropropane	50.06	1.0	ug/L	50.0		100	73-125			
1,2,3-Trichloropropane	50.06	1.0	ug/L	50.0		100	63-136			
trans-1,4-Dichloro-2-butene	91.13	5.0	ug/L	104		87.7	55-135			
trans-1,4-Dichloro-2-butene	91.13	5.0	ug/L	104		87.7	54-134			
1,1,2,2-Tetrachloroethane	48.21	1.0	ug/L	49.8		96.7	58-133			
1,1,2,2-Tetrachloroethane	48.21	1.0	ug/L	49.8		96.7	61-131			
1,3-Dichlorobenzene	47.36	1.0	ug/L	50.0		94.7	70-125			
1,4-Dichlorobenzene	48.42	1.0	ug/L	50.0		96.8	69-128			
1,4-Dichlorobenzene	48.42	1.0	ug/L	50.0		96.8	70-129			
1,2-Dichlorobenzene	47.76	1.0	ug/L	50.0		95.5	70-125			
1,2-Dichlorobenzene	47.76	1.0	ug/L	50.0		95.5	69-126			
1,2-Dibromo-3-chloropropane	53.00	1.0	ug/L	50.0		106	54-147			
1,2-Dibromo-3-chloropropane	53.00	5.0	ug/L	50.0		106	50-143			
1,2,4-Trichlorobenzene	49.19	1.0	ug/L	50.0		98.4	55-149			
Allyl chloride	47.27	1.0	ug/L	35.7		132	76-134			
Chloroprene	51.85	1.0	ug/L	50.0		104	74-141			
Methacrylonitrile	61.26	1.0	ug/L	64.3		95.3	73-143			
Methyl Methacrylate	57.45	1.0	ug/L	57.3		100	72-123			
Propionitrile	74.20	10.0	ug/L	50.0		148	50-151			

Surrogate: Dibromofluoromethane  
Surrogate: Dibromofluoromethane

51.2 ug/L 50.2 102 80-126  
51.2 ug/L 50.2 102 80-126



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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										

**LCS (1HC0683-BS1)**

Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:23

Surrogate: Dibromofluoromethane	51.2		ug/L	50.2		102	80-126			
Surrogate: Dibromofluoromethane	51.2		ug/L	50.2		102	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	63-138			
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	63-138			
Surrogate: 1,2-Dichloroethane-d4	50.9		ug/L	50.1		102	61-142			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	87-116			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	87-116			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	87-116			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	82-121			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.1		99.8	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.1		99.8	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.1		99.8	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.1		99.8	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.1		99.8	80-116			

**LCS Dup (1HC0683-BS1)**

Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:46

Dichlorodifluoromethane	43.28	1.0	ug/L	31.6		137	44-139	29.0	30	
Chloromethane	37.57	1.0	ug/L	30.6		123	56-152	6.94	30	
Chloromethane	37.57	1.0	ug/L	30.6		123	63-155	6.94	24	
Vinyl Chloride	35.19	1.0	ug/L	30.2		116	62-151	12.6	28	
Vinyl Chloride	35.19	1.0	ug/L	30.2		116	70-154	12.6	25	
Bromomethane	41.74	1.0	ug/L	28.8		145	61-162	13.0	28	
Bromomethane	41.74	1.0	ug/L	28.8		145	52-176	13.0	27	
Chloroethane	37.63	1.0	ug/L	31.6		119	69-138	12.8	29	
Chloroethane	37.63	1.0	ug/L	31.6		119	72-148	12.8	25	
Trichlorofluoromethane	36.34	1.0	ug/L	32.6		111	70-143	4.53	27	
Trichlorofluoromethane	36.34	1.0	ug/L	32.6		111	70-152	4.53	26	
Acrolein	97.11	10.0	ug/L	100		96.9	27-144	0.442	30	
1,1-Dichloroethylene	56.40	1.0	ug/L	50.0		113	76-140	2.71	30	
1,1-Dichloroethylene	56.40	1.0	ug/L	50.0		113	70-148	2.71	24	
Acetone	140.0	10.0	ug/L	102		137	51-156	24.2	30	
Acetone	140.0	10.0	ug/L	102		137	43-172	24.2	30	
Methyl Iodide	125.4	2.0	ug/L	99.7		126	81-166	0.199	29	
Methyl Iodide	125.4	1.0	ug/L	99.7		126	69-170	0.199	30	
Carbon Disulfide	106.0	1.0	ug/L	101		105	76-147	2.26	27	
Carbon Disulfide	106.0	1.0	ug/L	101		105	72-162	2.26	24	
Acetonitrile	94.49	10.0	ug/L	101		93.9	46-156	11.5	30	
Methylene Chloride	49.89	5.0	ug/L	50.0		99.8	67-139	0.785	26	
Methylene Chloride	49.89	5.0	ug/L	50.0		99.8	68-142	0.785	21	
Acrylonitrile	101.5	5.0	ug/L	100		101	67-144	4.11	24	
Acrylonitrile	101.5	5.0	ug/L	100		101	67-144	4.11	24	
trans-1,2-Dichloroethylene	49.76	1.0	ug/L	50.0		99.5	72-135	2.36	28	

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1HC0683-BSD1)</b>										
				Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:46						
trans-1,2-Dichloroethylene	49.76	1.0	ug/L	50.0		99.5	66-148	2.36	27	
1,1-Dichloroethane	49.19	1.0	ug/L	50.0		98.4	72-129	1.57	26	
1,1-Dichloroethane	49.19	1.0	ug/L	50.0		98.4	66-143	1.57	24	
Vinyl Acetate	101.5	5.0	ug/L	102		99.6	24-144	7.75	30	
Vinyl Acetate	101.5	5.0	ug/L	102		99.6	43-153	7.75	30	
2,2-Dichloropropane	47.28	1.0	ug/L	50.0		94.6	64-131	3.02	26	
cis-1,2-Dichloroethylene	60.43	1.0	ug/L	49.5		122	81-137	15.0	27	
cis-1,2-Dichloroethylene	60.43	1.0	ug/L	49.5		122	71-149	15.0	26	
2-Butanone (MEK)	115.0	5.0	ug/L	103		111	47-149	1.45	30	
2-Butanone (MEK)	115.0	10.0	ug/L	103		111	52-159	1.45	27	
Bromochloromethane	51.19	1.0	ug/L	50.0		102	75-138	0.0781	24	
Bromochloromethane	51.19	1.0	ug/L	50.0		102	69-143	0.0781	23	
Chloroform	47.76	1.0	ug/L	50.0		95.5	78-131	1.21	27	
Chloroform	47.76	1.0	ug/L	50.0		95.5	69-144	1.21	23	
1,1,1-Trichloroethane	45.26	1.0	ug/L	50.0		90.6	67-121	1.95	28	
1,1,1-Trichloroethane	45.26	1.0	ug/L	50.0		90.6	62-129	1.95	24	
1,1-Dichloropropene	49.24	1.0	ug/L	50.0		98.5	80-131	2.05	30	
Carbon Tetrachloride	49.16	1.0	ug/L	50.0		98.3	71-131	1.99	28	
Carbon Tetrachloride	49.16	1.0	ug/L	50.0		98.3	63-141	1.99	25	
Benzene	48.24	1.0	ug/L	50.0		96.5	77-130	0.455	25	
Benzene	48.24	1.0	ug/L	50.0		96.5	71-134	0.455	24	
1,2-Dichloroethane	47.64	1.0	ug/L	50.0		95.3	76-126	0.440	24	
1,2-Dichloroethane	47.64	1.0	ug/L	50.0		95.3	72-132	0.440	24	
Trichloroethylene	47.48	1.0	ug/L	50.0		95.0	80-124	1.15	27	
Trichloroethylene	47.48	1.0	ug/L	50.0		95.0	71-135	1.15	24	
1,2-Dichloropropane	48.13	1.0	ug/L	50.0		96.3	81-125	0.333	25	
1,2-Dichloropropane	48.13	1.0	ug/L	50.0		96.3	69-136	0.333	24	
Dibromomethane	52.61	1.0	ug/L	50.0		105	84-134	1.01	23	
Dibromomethane	52.61	1.0	ug/L	50.0		105	73-147	1.01	25	
Bromodichloromethane	46.93	1.0	ug/L	50.0		93.9	78-121	0.299	25	
Bromodichloromethane	46.93	1.0	ug/L	50.0		93.9	68-129	0.299	22	
cis-1,3-Dichloropropene	47.30	1.0	ug/L	50.3		94.0	78-120	0.318	26	
cis-1,3-Dichloropropene	47.30	1.0	ug/L	50.3		94.0	65-134	0.318	23	
4-Methyl-2-pentanone (MIBK)	102.0	5.0	ug/L	101		101	67-143	1.50	26	
4-Methyl-2-pentanone (MIBK)	102.0	5.0	ug/L	101		101	58-147	1.50	27	
Toluene	46.78	1.0	ug/L	50.0		93.6	77-130	1.25	27	
Toluene	46.78	1.0	ug/L	50.0		93.6	72-133	1.25	24	
trans-1,3-Dichloropropene	47.44	1.0	ug/L	50.4		94.1	77-123	0.253	28	
trans-1,3-Dichloropropene	47.44	1.0	ug/L	50.4		94.1	67-130	0.253	24	
Ethyl Methacrylate	96.90	10.0	ug/L	101		96.3	52-148	0.761	30	
1,1,2-Trichloroethane	48.74	1.0	ug/L	50.0		97.5	78-124	0.514	24	
1,1,2-Trichloroethane	48.74	1.0	ug/L	50.0		97.5	69-135	0.514	23	
Tetrachloroethylene	47.74	1.0	ug/L	50.0		95.5	73-124	1.50	26	

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0683 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1HC0683-BSD1)</b>										
				Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:46						
Tetrachloroethylene	47.74	1.0	ug/L	50.0		95.5	69-130	1.50	25	
1,3-Dichloropropane	52.61	1.0	ug/L	50.0		105	78-131	0.247	24	
2-Hexanone (MBK)	103.4	5.0	ug/L	103		100	57-145	1.38	30	
2-Hexanone (MBK)	103.4	5.0	ug/L	103		100	55-144	1.38	25	
Dibromochloromethane	49.99	1.0	ug/L	49.5		101	78-126	0.783	23	
Dibromochloromethane	49.99	1.0	ug/L	49.5		101	73-127	0.783	22	
1,2-Dibromoethane	49.99	1.0	ug/L	50.0		100	69-126	0.803	22	
1,2-Dibromoethane	49.99	1.0	ug/L	50.0		100	67-132	0.803	24	
Chlorobenzene	46.89	1.0	ug/L	50.0		93.8	76-120	1.75	25	
Chlorobenzene	46.89	1.0	ug/L	50.0		93.8	72-123	1.75	23	
1,1,1,2-Tetrachloroethane	49.87	1.0	ug/L	50.0		99.7	81-122	0.320	23	
1,1,1,2-Tetrachloroethane	49.87	1.0	ug/L	50.0		99.7	73-127	0.320	24	
Ethylbenzene	46.30	1.0	ug/L	50.0		92.6	74-121	1.52	27	
Ethylbenzene	46.30	1.0	ug/L	50.0		92.6	71-127	1.52	26	
Xylenes, total	140.7	2.0	ug/L	150		93.8	75-122	0.990	26	
Xylenes, total	140.7	2.0	ug/L	150		93.8	74-127	0.990	25	
Styrene	47.24	1.0	ug/L	50.0		94.5	76-119	0.633	26	
Styrene	47.24	1.0	ug/L	50.0		94.5	66-126	0.633	23	
Bromoform	50.69	1.0	ug/L	50.0		101	74-127	1.65	22	
Bromoform	50.69	1.0	ug/L	50.0		101	68-130	1.65	23	
1,2,3-Trichloropropane	50.40	1.0	ug/L	50.0		101	73-125	0.677	20	
1,2,3-Trichloropropane	50.40	1.0	ug/L	50.0		101	63-136	0.677	24	
trans-1,4-Dichloro-2-butene	92.66	5.0	ug/L	104		89.2	55-135	1.66	26	
trans-1,4-Dichloro-2-butene	92.66	5.0	ug/L	104		89.2	54-134	1.66	27	
1,1,2,2-Tetrachloroethane	48.44	1.0	ug/L	49.8		97.2	58-133	0.476	28	
1,1,2,2-Tetrachloroethane	48.44	1.0	ug/L	49.8		97.2	61-131	0.476	29	
1,3-Dichlorobenzene	46.92	1.0	ug/L	50.0		93.8	70-125	0.933	27	
1,4-Dichlorobenzene	48.40	1.0	ug/L	50.0		96.8	69-128	0.0413	29	
1,4-Dichlorobenzene	48.40	1.0	ug/L	50.0		96.8	70-129	0.0413	24	
1,2-Dichlorobenzene	47.45	1.0	ug/L	50.0		94.9	70-125	0.651	25	
1,2-Dichlorobenzene	47.45	1.0	ug/L	50.0		94.9	69-126	0.651	26	
1,2-Dibromo-3-chloropropane	53.89	1.0	ug/L	50.0		108	54-147	1.67	29	
1,2-Dibromo-3-chloropropane	53.89	5.0	ug/L	50.0		108	50-143	1.67	30	
1,2,4-Trichlorobenzene	49.20	1.0	ug/L	50.0		98.4	55-149	0.0203	30	
Allyl chloride	47.98	1.0	ug/L	35.7		134	76-134	1.49	30	
Chloroprene	50.02	1.0	ug/L	50.0		100	74-141	3.59	30	
Methacrylonitrile	61.30	1.0	ug/L	64.3		95.4	73-143	0.0653	30	
Methyl Methacrylate	59.11	1.0	ug/L	57.3		103	72-123	2.85	30	
Propionitrile	72.02	10.0	ug/L	50.0		144	50-151	2.98	30	

Surrogate: Dibromofluoromethane	51.3		ug/L	50.2		102	80-126			
Surrogate: Dibromofluoromethane	51.3		ug/L	50.2		102	80-126			
Surrogate: Dibromofluoromethane	51.3		ug/L	50.2		102	80-126			
Surrogate: Dibromofluoromethane	51.3		ug/L	50.2		102	75-136			

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0683 - EPA 5030B - EPA 8260B

LCS Dup (1HC0683-BSD1)

Prepared: 03/12/24 00:00 Analyzed: 03/12/24 13:46

Surrogate: 1,2-Dichloroethane-d4	50.7		ug/L	50.1		101	63-138			
Surrogate: 1,2-Dichloroethane-d4	50.7		ug/L	50.1		101	63-138			
Surrogate: 1,2-Dichloroethane-d4	50.7		ug/L	50.1		101	63-138			
Surrogate: 1,2-Dichloroethane-d4	50.7		ug/L	50.1		101	63-138			
Surrogate: 1,2-Dichloroethane-d4	50.7		ug/L	50.1		101	61-142			
Surrogate: Toluene-d8	50.4		ug/L	50.4		99.9	87-116			
Surrogate: Toluene-d8	50.4		ug/L	50.4		99.9	87-116			
Surrogate: Toluene-d8	50.4		ug/L	50.4		99.9	87-116			
Surrogate: Toluene-d8	50.4		ug/L	50.4		99.9	82-121			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.1		99.9	85-111			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.1		99.9	85-111			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.1		99.9	85-111			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.1		99.9	85-111			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.1		99.9	80-116			

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0813 - Semi-Vol GC - EPA 8015C

Blank (1HC0813-BLK1)

Prepared: 03/14/24 12:08 Analyzed: 03/14/24 16:26

Isobutanol	<1.0	1.0	mg/L							
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LCS (1HC0813-BS1)

Prepared: 03/14/24 12:08 Analyzed: 03/14/24 14:31

Isobutanol	26.76	1.0	mg/L	26.0		103	40-135			
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Matrix Spike (1HC0813-MS1)

Source: 1HC0190-02

Prepared: 03/14/24 12:08 Analyzed: 03/14/24 22:07

Isobutanol	26.39	1.0	mg/L	26.0	ND	102	63-135			
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Matrix Spike Dup (1HC0813-MSD1)

Source: 1HC0190-02

Prepared: 03/14/24 12:08 Analyzed: 03/14/24 22:46

Isobutanol	26.10	1.0	mg/L	26.0	ND	100	63-135	1.10	30	
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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C

Blank (1HC0746-BLK1)

Prepared: 03/13/24 14:05 Analyzed: 03/25/24 11:50

N-Nitrosodimethylamine	<8	8	ug/L							
Methyl Methanesulfonate	<8	8	ug/L							
N-Nitrosodiethylamine	<8	8	ug/L							
N-Nitrosomethylethylamine	<8	8	ug/L							
Ethyl Methanesulfonate	<8	8	ug/L							
Phenol	<8	8	ug/L							
Bis(2-Chloroethyl) Ether	<8	8	ug/L							



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CERTIFICATE OF ANALYSIS

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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Base/Neutral/Acid Extractable Compounds</b>										
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>Blank (1HC0746-BLK1)</b>				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 11:50						
2-Chlorophenol	<8	8	ug/L							
Benzyl Alcohol	<8	8	ug/L							
2-Methylphenol (o-Cresol)	<8	8	ug/L							
Bis[2-Chloroisopropyl]ether	<8	8	ug/L							
n-Nitroso-di-n-propylamine	<8	8	ug/L							
N-Nitrosopyrrolidine	<8	8	ug/L							
Acetophenone	<8	8	ug/L							
o-Toluidine	<8	8	ug/L							
(3 & 4)-Methylphenol	<8	8	ug/L							
Hexachloroethane	<8	8	ug/L							
Nitrobenzene	<8	8	ug/L							
N-Nitrosopiperidine	<8	8	ug/L							
Isophorone	<8	8	ug/L							
2-Nitrophenol	<8	8	ug/L							
2,4-Dimethylphenol	<8	8	ug/L							
Bis (2-Chloroethoxy) Methane	<8	8	ug/L							
2,4-Dichlorophenol	<8	8	ug/L							
Naphthalene	<8	8	ug/L							
4-Chloroaniline	<8	8	ug/L							
2,6-Dichlorophenol	<8	8	ug/L							
Hexachloropropene	<8	8	ug/L							
Hexachlorobutadiene	<8	8	ug/L							
N-Nitrosodi-n-butylamine	<8	8	ug/L							
1,4-Phenylenediamine	<8	8	ug/L							
4-Chloro-3-methylphenol	<8	8	ug/L							
2-Methylnaphthalene	<8	8	ug/L							
Isosafrole	<8	8	ug/L							
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L							
Hexachlorocyclopentadiene	<8	8	ug/L							
2,4,6-Trichlorophenol	<8	8	ug/L							
2,4,5-Trichlorophenol	<8	8	ug/L							
Safrole	<8	8	ug/L							
2-Chloronaphthalene	<8	8	ug/L							
2-Nitroaniline	<8	8	ug/L							
1,4-Naphthoquinone	<8	8	ug/L							
Dimethylphthalate	<8	8	ug/L							
1,3-Dinitrobenzene	<8	8	ug/L							
1,2-Dinitrobenzene	<8	8	ug/L							
2,6-Dinitrotoluene	<8	8	ug/L							
Acenaphthylene	<8	8	ug/L							
3-Nitroaniline	<8	8	ug/L							
Acenaphthene	<8	8	ug/L							

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Base/Neutral/Acid Extractable Compounds</b>										
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>Blank (1HC0746-BLK1)</b>				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 11:50						
2,4-Dinitrophenol	<8	8	ug/L							
4-Nitrophenol	<8	8	ug/L							
Dibenzofuran	<8	8	ug/L							
2,4-Dinitrotoluene	<8	8	ug/L							
2,3,4,6-Tetrachlorophenol	<8	8	ug/L							
Pentachlorobenzene	<8	8	ug/L							
1-Naphthylamine	<8	8	ug/L							
2-Naphthylamine	<8	8	ug/L							
Diethyl Phthalate	<8	8	ug/L							
Fluorene	<8	8	ug/L							
4-Chlorophenyl Phenyl Ether	<8	8	ug/L							
4-Nitroaniline	<8	8	ug/L							
5-Nitro-o-toluidine	<8	8	ug/L							
4,6-Dinitro-2-methylphenol	<8	8	ug/L							
N-Nitrosodiphenylamine	<8	8	ug/L							
Diphenylamine	<8	8	ug/L							
Azobenzene	<8	8	ug/L							
Diallate	<8	8	ug/L							
1,3,5-Trinitrobenzene	<8	8	ug/L							
Phenacetin	<8	8	ug/L							
4-Bromophenyl Phenyl Ether	<8	8	ug/L							
4-Aminobiphenyl	<8	8	ug/L							
Pentachlorophenol	<8	8	ug/L							
Pronamide	<8	8	ug/L							
Pentachloronitrobenzene (PCNB)	<8	8	ug/L							
Phenanthrene	<8	8	ug/L							
Anthracene	<8	8	ug/L							
Di-n-butyl Phthalate	<8	8	ug/L							
Methapyrilene	<8	8	ug/L							
Fluoranthene	<8	8	ug/L							
Isodrin	<8	8	ug/L							
Chlorobenzilate	<8	8	ug/L							
Pyrene	<8	8	ug/L							
p-(Dimethylamino)azobenzene	<8	8	ug/L							
3,3-Dimethylbenzidine	<8	8	ug/L							
Butyl Benzyl Phthalate	<8	8	ug/L							
Benzo(a)anthracene	<8	8	ug/L							
Chrysene	<8	8	ug/L							
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L							
Kepone	<8	8	ug/L							
3,3'-Dichlorobenzidine	<8	8	ug/L							
2-Acetylaminofluorene	<8	8	ug/L							

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>Blank (1HC0746-BLK1)</b>				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 11:50						
Di-n-octyl Phthalate	<8	8	ug/L							
Benzo(b)Fluoranthene	<8	8	ug/L							
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L							
Benzo(k)Fluoranthene	<8	8	ug/L							
Benzo(a)Pyrene	<8	8	ug/L							
3-Methylcholanthrene	<8	8	ug/L							
Dibenzo(a,h)anthracene	<8	8	ug/L							
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L							
Benzo(g,h,i)perylene	<8	8	ug/L							
<i>Surrogate: 2-Fluorophenol</i>	42.1		ug/L	61.6		68.3	24-136			
<i>Surrogate: Phenol-d6</i>	42.7		ug/L	63.5		67.3	15-140			
<i>Surrogate: Nitrobenzene-d5</i>	42.9		ug/L	62.6		68.6	23-113			
<i>Surrogate: 2-Fluorobiphenyl</i>	39.1		ug/L	60.0		65.1	23-113			
<i>Surrogate: 2,4,6-Tribromophenol</i>	48.3		ug/L	62.0		77.9	15-139			
<i>Surrogate: Terphenyl-d14</i>	53.2		ug/L	60.0		88.6	27-141			
<b>LCS (1HC0746-BS1)</b>				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 12:15						
N-Nitrosodimethylamine	13.3	8	ug/L	21.4		62.1	36-138			
Methyl Methanesulfonate	30.3	8	ug/L	50.0		60.7	22-114			
N-Nitrosodiethylamine	34.0	8	ug/L	50.0		68.1	52-114			
N-Nitrosomethylethylamine	33.9	8	ug/L	50.0		67.7	36-120			
Ethyl Methanesulfonate	30.7	8	ug/L	50.0		61.3	46-110			
Phenol	13.7	8	ug/L	21.4		63.9	50-112			
Bis(2-Chloroethyl) Ether	15.1	8	ug/L	21.4		70.8	39-151			
2-Chlorophenol	13.9	8	ug/L	21.4		65.2	56-116			
Benzyl Alcohol	13.6	8	ug/L	21.4		63.8	13-158			
2-Methylphenol (o-Cresol)	14.6	8	ug/L	21.4		68.1	53-131			
Bis[2-Chloroisopropyl]ether	13.4	8	ug/L	21.4		62.6	50-121			
n-Nitroso-di-n-propylamine	14.4	8	ug/L	21.4		67.4	50-138			
N-Nitrosopyrrolidine	34.8	8	ug/L	50.0		69.7	31-118			
Acetophenone	35.4	8	ug/L	50.0		70.8	45-104			
o-Toluidine	29.0	8	ug/L	50.0		58.0	10-163			
(3 & 4)-Methylphenol	14.9	8	ug/L	21.4		69.7	30-164			
Hexachloroethane	9.6	8	ug/L	21.4		44.8	10-110			
Nitrobenzene	15.0	8	ug/L	21.4		70.0	47-134			
N-Nitrosopiperidine	36.4	8	ug/L	50.0		72.8	51-122			
Isophorone	15.4	8	ug/L	21.4		72.0	54-128			
2-Nitrophenol	15.8	8	ug/L	21.4		73.7	54-117			
2,4-Dimethylphenol	13.8	8	ug/L	21.4		64.4	52-118			
Bis (2-Chloroethoxy) Methane	11.6	8	ug/L	21.4		54.0	13-132			
2,4-Dichlorophenol	16.3	8	ug/L	21.4		76.2	58-114			
Naphthalene	12.0	8	ug/L	21.4		55.9	37-116			
4-Chloroaniline	12.7	8	ug/L	21.4		59.5	10-198			



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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>									
<b>LCS (1HC0746-BS1)</b>				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 12:15					
2,6-Dichlorophenol	39.5	8	ug/L	50.0		78.9 52-129			
Hexachloropropene	21.9	8	ug/L	50.0		43.7 14-110			
Hexachlorobutadiene	10.3	8	ug/L	21.4		48.0 14-110			
N-Nitrosodi-n-butylamine	34.0	8	ug/L	50.0		68.0 40-135			
1,4-Phenylenediamine	<8	8	ug/L	50.0		6.20 10-103			QS-03
4-Chloro-3-methylphenol	19.2	8	ug/L	21.4		89.8 57-136			
2-Methylnaphthalene	13.0	8	ug/L	21.4		60.9 44-111			
Isosafrole	32.4	8	ug/L	50.0		64.9 49-107			
1,2,4,5-Tetrachlorobenzene	25.3	8	ug/L	50.0		50.5 42-110			
Hexachlorocyclopentadiene	10.9	8	ug/L	21.4		51.0 11-110			
2,4,6-Trichlorophenol	16.7	8	ug/L	21.4		77.9 55-120			
2,4,5-Trichlorophenol	17.8	8	ug/L	21.4		83.1 55-121			
Safrole	31.8	8	ug/L	50.0		63.7 40-118			
2-Chloronaphthalene	18.5	8	ug/L	21.4		86.7 47-127			
2-Nitroaniline	18.7	8	ug/L	21.4		87.5 36-143			
1,4-Naphthoquinone	52.0	8	ug/L	50.0		104 43-152			
Dimethylphthalate	18.2	8	ug/L	21.4		85.1 59-128			
1,3-Dinitrobenzene	18.2	8	ug/L	21.4		84.8 63-125			
1,2-Dinitrobenzene	19.6	8	ug/L	21.4		91.7 63-123			
2,6-Dinitrotoluene	18.8	8	ug/L	21.4		88.1 60-127			
Acenaphthylene	15.0	8	ug/L	21.4		70.1 49-113			
3-Nitroaniline	18.8	8	ug/L	21.4		87.7 10-162			
Acenaphthene	15.0	8	ug/L	21.4		69.9 50-119			
2,4-Dinitrophenol	19.1	8	ug/L	21.4		89.4 27-157			
4-Nitrophenol	19.6	8	ug/L	21.4		91.4 49-154			
Dibenzofuran	16.1	8	ug/L	21.4		75.2 56-121			
2,4-Dinitrotoluene	18.7	8	ug/L	21.4		87.5 53-138			
2,3,4,6-Tetrachlorophenol	18.2	8	ug/L	21.4		85.1 47-132			
Pentachlorobenzene	41.0	8	ug/L	50.0		82.0 41-125			
1-Naphthylamine	22.8	8	ug/L	50.0		45.7 10-152			
2-Naphthylamine	37.7	8	ug/L	50.0		75.4 19-128			
Diethyl Phthalate	18.9	8	ug/L	21.4		88.5 53-138			
Fluorene	17.2	8	ug/L	21.4		80.5 54-125			
4-Chlorophenyl Phenyl Ether	17.1	8	ug/L	21.4		79.7 51-122			
4-Nitroaniline	19.7	8	ug/L	21.4		91.9 10-136			
5-Nitro-o-toluidine	42.8	8	ug/L	50.0		85.5 10-145			
4,6-Dinitro-2-methylphenol	19.4	8	ug/L	21.4		90.5 49-137			
N-Nitrosodiphenylamine	16.6	8	ug/L	21.4		77.6 25-138			
Diphenylamine	16.6	8	ug/L	21.4		77.6 35-151			
Azobenzene	17.7	8	ug/L	21.4		82.6 16-156			
Diallate	48.5	8	ug/L	50.0		97.0 54-132			
1,3,5-Trinitrobenzene	50.5	8	ug/L	50.0		101 57-173			

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CERTIFICATE OF ANALYSIS

1HC0539

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Base/Neutral/Acid Extractable Compounds</b>										
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>LCS (1HC0746-BS1)</b>										
				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 12:15						
Phenacetin	49.1	8	ug/L	50.0		98.2	55-121			
4-Bromophenyl Phenyl Ether	18.0	8	ug/L	21.4		84.2	53-122			
4-Aminobiphenyl	41.9	8	ug/L	50.0		83.8	10-178			
Pentachlorophenol	15.0	8	ug/L	21.4		70.1	18-152			
Pronamide	44.6	8	ug/L	50.0		89.3	42-122			
Pentachloronitrobenzene (PCNB)	49.4	8	ug/L	50.0		98.8	50-128			
Phenanthrene	18.3	8	ug/L	21.4		85.7	59-131			
Anthracene	18.1	8	ug/L	21.4		84.6	59-127			
Di-n-butyl Phthalate	20.0	8	ug/L	21.4		93.4	64-148			
Fluoranthene	19.8	8	ug/L	21.4		92.3	62-132			
Isodrin	45.1	8	ug/L	50.0		90.2	46-130			
Chlorobenzilate	47.6	8	ug/L	50.0		95.1	48-150			
Pyrene	18.3	8	ug/L	21.4		85.6	58-135			
p-(Dimethylamino)azobenzene	34.0	8	ug/L	50.0		67.9	28-146			
3,3-Dimethylbenzidine	19.4	8	ug/L	50.0		38.8	10-145			
Butyl Benzyl Phthalate	19.7	8	ug/L	21.4		91.9	52-150			
Benzo(a)anthracene	18.7	8	ug/L	21.4		87.5	58-131			
Chrysene	19.1	8	ug/L	21.4		89.1	59-131			
Bis(2-Ethylhexyl) Phthalate	28.6	6	ug/L	21.4		134	33-184			
Kepon	110.7	8	ug/L	50.0		221	10-134			QS-02
2-Acetylaminofluorene	49.8	8	ug/L	50.0		99.7	47-166			
Di-n-octyl Phthalate	20.3	8	ug/L	21.4		94.7	48-162			
Benzo(b)Fluoranthene	20.2	8	ug/L	21.4		94.2	50-146			
7,12-Dimethylbenz [a] anthracene	45.5	8	ug/L	50.0		91.0	22-155			
Benzo(k)Fluoranthene	19.7	8	ug/L	21.4		92.1	54-144			
Benzo(a)Pyrene	18.8	8	ug/L	21.4		88.1	39-148			
3-Methylcholanthrene	42.0	8	ug/L	50.0		83.9	34-118			
Dibenzo(a,h)anthracene	19.8	8	ug/L	21.4		92.3	46-153			
Indeno(1,2,3-cd)Pyrene	19.7	8	ug/L	21.4		92.1	48-152			
Benzo(g,h,i)perylene	20.1	8	ug/L	21.4		93.9	47-161			
<b>Surrogate: 2-Fluorophenol</b>										
	33.6		ug/L	61.6		54.5	24-136			
<b>Surrogate: Phenol-d6</b>										
	37.5		ug/L	63.5		59.0	15-140			
<b>Surrogate: Nitrobenzene-d5</b>										
	40.3		ug/L	62.6		64.4	38-115			
<b>Surrogate: 2-Fluorobiphenyl</b>										
	39.6		ug/L	60.0		66.0	33-110			
<b>Surrogate: 2,4,6-Tribromophenol</b>										
	50.2		ug/L	62.0		81.0	15-139			
<b>Surrogate: Terphenyl-d14</b>										
	51.2		ug/L	60.0		85.3	30-142			
<b>LCS Dup (1HC0746-BSD1)</b>										
				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 12:39						
N-Nitrosodimethylamine	13.9	8	ug/L	21.4		65.0	36-138	4.63	30	
Methyl Methanesulfonate	31.3	8	ug/L	50.0		62.6	22-114	3.18	23	
N-Nitrosodiethylamine	34.6	8	ug/L	50.0		69.1	52-114	1.49	18	
N-Nitrosomethylethylamine	34.9	8	ug/L	50.0		69.7	36-120	2.91	22	
Ethyl Methanesulfonate	31.7	8	ug/L	50.0		63.4	46-110	3.24	24	

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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Base/Neutral/Acid Extractable Compounds</b>										
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>LCS Dup (1HC0746-BSD1)</b>				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 12:39						
Phenol	15.9	8	ug/L	21.4		74.4	50-112	15.1	28	
Bis(2-Chloroethyl) Ether	15.7	8	ug/L	21.4		73.3	39-151	3.57	30	
2-Chlorophenol	15.8	8	ug/L	21.4		73.9	56-116	12.6	22	
Benzyl Alcohol	13.6	8	ug/L	21.4		63.4	13-158	0.588	30	
2-Methylphenol (o-Cresol)	15.3	8	ug/L	21.4		71.7	53-131	5.02	25	
Bis[2-Chloroisopropyl]ether	14.7	8	ug/L	21.4		68.8	50-121	9.46	25	
n-Nitroso-di-n-propylamine	14.9	8	ug/L	21.4		69.5	50-138	2.94	30	
N-Nitrosopyrrolidine	36.3	8	ug/L	50.0		72.6	31-118	4.05	30	
Acetophenone	35.9	8	ug/L	50.0		71.8	45-104	1.35	30	
o-Toluidine	34.2	8	ug/L	50.0		68.4	10-163	16.5	30	
(3 & 4)-Methylphenol	16.4	8	ug/L	21.4		76.6	30-164	9.46	30	
Hexachloroethane	10.9	8	ug/L	21.4		50.9	10-110	12.9	37	
Nitrobenzene	14.4	8	ug/L	21.4		67.5	47-134	3.67	28	
N-Nitrosopiperidine	34.7	8	ug/L	50.0		69.4	51-122	4.84	30	
Isophorone	14.7	8	ug/L	21.4		68.6	54-128	4.86	22	
2-Nitrophenol	16.4	8	ug/L	21.4		76.5	54-117	3.67	21	
2,4-Dimethylphenol	12.7	8	ug/L	21.4		59.2	52-118	8.40	23	
Bis (2-Chloroethoxy) Methane	14.5	8	ug/L	21.4		67.7	13-132	22.4	30	
2,4-Dichlorophenol	16.7	8	ug/L	21.4		77.9	58-114	2.18	20	
Naphthalene	12.1	8	ug/L	21.4		56.4	37-116	0.999	17	
4-Chloroaniline	12.7	8	ug/L	21.4		59.5	10-198	0.0786	30	
2,6-Dichlorophenol	39.5	8	ug/L	50.0		78.9	52-129	0.0253	16	
Hexachloropropene	24.6	8	ug/L	50.0		49.2	14-110	11.7	29	
Hexachlorobutadiene	11.3	8	ug/L	21.4		53.0	14-110	10.0	29	
N-Nitrosodi-n-butylamine	31.9	8	ug/L	50.0		63.9	40-135	6.31	23	
1,4-Phenylenediamine	<8	8	ug/L	50.0			10-103		30	QS-03
4-Chloro-3-methylphenol	17.7	8	ug/L	21.4		82.7	57-136	8.24	18	
2-Methylnaphthalene	13.0	8	ug/L	21.4		60.7	44-111	0.231	20	
Isosafrole	35.7	8	ug/L	50.0		71.4	49-107	9.51	12	
1,2,4,5-Tetrachlorobenzene	27.0	8	ug/L	50.0		53.9	42-110	6.55	30	
Hexachlorocyclopentadiene	13.6	8	ug/L	21.4		63.5	11-110	21.8	29	
2,4,6-Trichlorophenol	18.9	8	ug/L	21.4		88.4	55-120	12.6	15	
2,4,5-Trichlorophenol	20.4	8	ug/L	21.4		95.4	55-121	13.9	16	
Safrole	37.8	8	ug/L	50.0		75.7	40-118	17.3	30	
2-Chloronaphthalene	18.7	8	ug/L	21.4		87.5	47-127	0.966	17	
2-Nitroaniline	19.6	8	ug/L	21.4		91.4	36-143	4.39	30	
1,4-Naphthoquinone	55.0	8	ug/L	50.0		110	43-152	5.44	30	
Dimethylphthalate	18.5	8	ug/L	21.4		86.6	59-128	1.74	15	
1,3-Dinitrobenzene	19.2	8	ug/L	21.4		89.8	63-125	5.67	14	
1,2-Dinitrobenzene	20.1	8	ug/L	21.4		93.8	63-123	2.22	18	
2,6-Dinitrotoluene	19.5	8	ug/L	21.4		91.1	60-127	3.44	13	
Acenaphthylene	16.4	8	ug/L	21.4		76.6	49-113	8.86	23	

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>LCS Dup (1HC0746-BSD1)</b>										
Prepared: 03/13/24 14:05 Analyzed: 03/25/24 12:39										
3-Nitroaniline	19.4	8	ug/L	21.4		90.7	10-162	3.35	30	
Acenaphthene	15.8	8	ug/L	21.4		74.0	50-119	5.71	16	
2,4-Dinitrophenol	19.0	8	ug/L	21.4		88.8	27-157	0.682	23	
4-Nitrophenol	19.7	8	ug/L	21.4		92.2	49-154	0.916	28	
Dibenzofuran	16.8	8	ug/L	21.4		78.4	56-121	4.14	18	
2,4-Dinitrotoluene	19.0	8	ug/L	21.4		88.8	53-138	1.38	18	
2,3,4,6-Tetrachlorophenol	20.3	8	ug/L	21.4		95.0	47-132	11.1	29	
Pentachlorobenzene	42.3	8	ug/L	50.0		84.5	41-125	3.05	22	
1-Naphthylamine	38.7	8	ug/L	50.0		77.5	10-152	51.6	30	QR-02
2-Naphthylamine	43.5	8	ug/L	50.0		87.0	19-128	14.3	30	
Diethyl Phthalate	19.0	8	ug/L	21.4		89.0	53-138	0.632	18	
Fluorene	17.6	8	ug/L	21.4		82.5	54-125	2.41	14	
4-Chlorophenyl Phenyl Ether	17.6	8	ug/L	21.4		82.1	51-122	2.89	15	
4-Nitroaniline	20.1	8	ug/L	21.4		93.8	10-136	1.96	30	
5-Nitro-o-toluidine	42.6	8	ug/L	50.0		85.2	10-145	0.398	30	
4,6-Dinitro-2-methylphenol	19.4	8	ug/L	21.4		90.6	49-137	0.0516	16	
N-Nitrosodiphenylamine	19.2	8	ug/L	21.4		89.6	25-138	14.3	30	
Diphenylamine	19.2	8	ug/L	21.4		89.6	35-151	14.3	30	
Azobenzene	19.0	8	ug/L	21.4		89.0	16-156	7.41	30	
Diallate	50.0	8	ug/L	50.0		100	54-132	3.05	25	
1,3,5-Trinitrobenzene	52.3	8	ug/L	50.0		105	57-173	3.54	30	
Phenacetin	48.7	8	ug/L	50.0		97.4	55-121	0.798	30	
4-Bromophenyl Phenyl Ether	19.0	8	ug/L	21.4		88.6	53-122	5.08	16	
4-Aminobiphenyl	46.7	8	ug/L	50.0		93.3	10-178	10.8	30	
Pentachlorophenol	18.8	8	ug/L	21.4		87.8	18-152	22.5	30	
Pronamide	47.9	8	ug/L	50.0		95.7	42-122	7.01	30	
Pentachloronitrobenzene (PCNB)	50.1	8	ug/L	50.0		100	50-128	1.29	18	
Phenanthrene	19.0	8	ug/L	21.4		88.7	59-131	3.43	16	
Anthracene	18.8	8	ug/L	21.4		88.1	59-127	4.06	16	
Di-n-butyl Phthalate	20.4	8	ug/L	21.4		95.3	64-148	1.98	30	
Fluoranthene	19.8	8	ug/L	21.4		92.7	62-132	0.455	16	
Isodrin	46.3	8	ug/L	50.0		92.5	46-130	2.52	29	
Chlorobenzilate	47.0	8	ug/L	50.0		93.9	48-150	1.27	30	
Pyrene	19.0	8	ug/L	21.4		88.6	58-135	3.44	18	
p-(Dimethylamino)azobenzene	49.8	8	ug/L	50.0		99.5	28-146	37.8	30	QR-02
3,3-Dimethylbenzidine	25.2	8	ug/L	50.0		50.5	10-145	26.2	30	
Butyl Benzyl Phthalate	19.7	8	ug/L	21.4		91.9	52-150	0.00	30	
Benzo(a)anthracene	19.3	8	ug/L	21.4		90.3	58-131	3.15	30	
Chrysene	19.5	8	ug/L	21.4		91.2	59-131	2.38	30	
Bis(2-Ethylhexyl) Phthalate	22.8	6	ug/L	21.4		107	33-184	22.6	30	
Kepone	119.6	8	ug/L	50.0		239	10-134	7.67	30	QS-02
2-Acetylaminofluorene	49.8	8	ug/L	50.0		99.6	47-166	0.0602	30	

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0746 - 3520C BNA Cont Liq - EPA 8270C</b>										
<b>LCS Dup (1HC0746-BSD1)</b>				Prepared: 03/13/24 14:05 Analyzed: 03/25/24 12:39						
Di-n-octyl Phthalate	20.3	8	ug/L	21.4		94.9	48-162	0.197	30	
Benzo(b)Fluoranthene	20.5	8	ug/L	21.4		96.0	50-146	1.82	30	
7,12-Dimethylbenz [a] anthracene	46.1	8	ug/L	50.0		92.2	22-155	1.33	30	
Benzo(k)Fluoranthene	19.6	8	ug/L	21.4		91.6	54-144	0.611	30	
Benzo(a)Pyrene	19.2	8	ug/L	21.4		89.9	39-148	2.05	30	
3-Methylcholanthrene	46.8	8	ug/L	50.0		93.6	34-118	10.9	30	
Dibenzo(a,h)anthracene	19.6	8	ug/L	21.4		91.8	46-153	0.559	30	
Indeno(1,2,3-cd)Pyrene	19.7	8	ug/L	21.4		91.9	48-152	0.203	30	
Benzo(g,h,i)perylene	20.1	8	ug/L	21.4		94.0	47-161	0.0497	30	

Surrogate: 2-Fluorophenol	41.5		ug/L	61.6		67.3	24-136			
Surrogate: Phenol-d6	44.4		ug/L	63.5		69.8	15-140			
Surrogate: Nitrobenzene-d5	39.1		ug/L	62.6		62.5	38-115			
Surrogate: 2-Fluorobiphenyl	44.4		ug/L	60.0		74.0	33-110			
Surrogate: 2,4,6-Tribromophenol	56.9		ug/L	62.0		91.8	15-139			
Surrogate: Terphenyl-d14	51.3		ug/L	60.0		85.4	30-142			

Determination of Organophosphorus Insecticides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0742 - 3510C NP/OC Sep Fnl - EPA 8141</b>										
<b>Blank (1HC0742-BLK1)</b>				Prepared: 03/13/24 13:21 Analyzed: 03/25/24 13:08						
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L							
Thionazin	<0.4	0.4	ug/L							
Phorate	<0.4	0.4	ug/L							
Dimethoate	<0.4	0.4	ug/L							
Disulfoton	<0.4	0.4	ug/L							
Methyl Parathion	<0.4	0.4	ug/L							
Parathion	<0.4	0.4	ug/L							
Famphur	<0.4	0.4	ug/L							

Surrogate: 2-Nitro-m-xylene	7.10		ug/L	8.34		85.1	38-122			
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<b>LCS (1HC0742-BS1)</b>				Prepared: 03/13/24 13:21 Analyzed: 03/25/24 16:02						
O,O,O-Triethyl phosphorothioate	3.96	0.4	ug/L	4.02		98.5	42-115			
Thionazin	4.20	0.4	ug/L	4.03		104	28-118			
Phorate	4.20	0.4	ug/L	4.03		104	18-159			
Dimethoate	5.95	0.4	ug/L	4.03		148	43-155			
Disulfoton	4.40	0.4	ug/L	4.03		109	37-126			
Methyl Parathion	4.40	0.4	ug/L	4.04		109	28-145			
Parathion	4.06	0.4	ug/L	4.00		102	52-121			
Famphur	4.11	0.4	ug/L	4.02		102	44-144			



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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Organophosphorus Insecticides</b>										
<b>Batch 1HC0742 - 3510C NP/OC Sep Fnl - EPA 8141</b>										

**LCS (1HC0742-BS1)** Prepared: 03/13/24 13:21 Analyzed: 03/25/24 16:02

Surrogate: 2-Nitro-m-xylene 10.9 ug/L 8.34 131 38-122 C-17

**LCS Dup (1HC0742-BSD1)** Prepared: 03/13/24 13:21 Analyzed: 03/25/24 17:01

O,O,O-Triethyl phosphorothioate	4.23	0.4	ug/L	4.02		105	42-115	6.47	30	
Thionazin	4.19	0.4	ug/L	4.03		104	28-118	0.238	30	
Phorate	3.61	0.4	ug/L	4.03		89.5	18-159	15.0	30	
Dimethoate	4.89	0.4	ug/L	4.03		121	43-155	19.6	22	
Disulfoton	3.54	0.4	ug/L	4.03		87.8	37-126	21.8	30	
Methyl Parathion	4.28	0.4	ug/L	4.04		106	28-145	2.65	28	
Parathion	4.28	0.4	ug/L	4.00		107	52-121	5.16	26	
Famphur	4.08	0.4	ug/L	4.02		101	44-144	0.733	28	

Surrogate: 2-Nitro-m-xylene 7.74 ug/L 8.34 92.8 38-122

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1HC0643 - EPA 8151A - EPA 8151A**

**Blank (1HC0643-BLK1)** Prepared: 03/12/24 12:54 Analyzed: 03/18/24 13:38

2,4-D	<2.0	2.0	ug/L							
2,4,5-TP (Silvex)	<0.5	0.5	ug/L							
2,4,5-T	<0.5	0.5	ug/L							
Dinoseb	<0.5	0.5	ug/L							

Surrogate: 2,5-Dichlorobenzoic Acid 2.12 ug/L 2.02 105 31-116

**LCS (1HC0643-BS1)** Prepared: 03/12/24 12:54 Analyzed: 03/18/24 14:10

2,4-D	<100	100	ug/L	57.5		103	16-161			
2,4,5-TP (Silvex)	29.50	25.0	ug/L	28.8		103	35-141			
2,4,5-T	32.00	25.0	ug/L	28.8		111	54-149			
Dinoseb	38.25	25.0	ug/L	57.5		66.5	10-133			

Surrogate: 2,5-Dichlorobenzoic Acid 114 ug/L 101 113 31-116

**Matrix Spike (1HC0643-MS1)** Source: 1HC0199-01 Prepared: 03/12/24 12:54 Analyzed: 03/18/24 14:43

2,4-D	<100	100	ug/L	57.5	ND	138	50-131			QS-02
2,4,5-TP (Silvex)	32.00	25.0	ug/L	28.8	ND	111	50-129			
2,4,5-T	33.75	25.0	ug/L	28.8	ND	117	50-123			
Dinoseb	38.75	25.0	ug/L	57.5	ND	67.4	50-138			

Surrogate: 2,5-Dichlorobenzoic Acid 114 ug/L 101 113 31-116

**Matrix Spike Dup (1HC0643-MSD1)** Source: 1HC0199-01 Prepared: 03/12/24 12:54 Analyzed: 03/18/24 15:16

2,4-D	<100	100	ug/L	57.5	ND	145	50-131	4.61	30	QS-02
2,4,5-TP (Silvex)	34.00	25.0	ug/L	28.8	ND	118	50-129	6.06	30	



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Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0643 - EPA 8151A - EPA 8151A

Matrix Spike Dup (1HC0643-MSD1)	Source: 1HC0199-01	Prepared: 03/12/24 12:54 Analyzed: 03/18/24 15:16								
2,4,5-T	35.00	25.0	ug/L	28.8	ND	122	50-123	3.64	30	
Dinoseb	43.25	25.0	ug/L	57.5	ND	75.2	50-138	11.0	30	
Surrogate: 2,5-Dichlorobenzoic Acid	124		ug/L	101		122	31-116			S-07

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0740 - 3510C NP/OC Sep Fnl - EPA 8081

Blank (1HC0740-BLK1)	Prepared: 03/13/24 13:19 Analyzed: 03/25/24 13:35									
Alpha-BHC	<0.05	0.05	ug/L							
Gamma-BHC [Lindane]	<0.05	0.05	ug/L							
Beta-BHC	<0.05	0.05	ug/L							
Heptachlor	<0.05	0.05	ug/L							
Delta-BHC	<0.05	0.05	ug/L							
Aldrin	<0.05	0.05	ug/L							
Heptachlor Epoxide	<0.05	0.05	ug/L							
Endosulfan I	<0.05	0.05	ug/L							
4,4'-DDE	<0.05	0.05	ug/L							
Dieldrin	<0.05	0.05	ug/L							
Endrin	<0.05	0.05	ug/L							
4,4'-DDD	<0.05	0.05	ug/L							
Endosulfan II	<0.05	0.05	ug/L							
4,4'-DDT	<0.05	0.05	ug/L							
Endrin Aldehyde	<0.05	0.05	ug/L							
Endosulfan Sulfate	<0.05	0.05	ug/L							
Methoxychlor	<0.05	0.05	ug/L							
Chlordane	<0.10	0.10	ug/L							
Toxaphene	<0.20	0.20	ug/L							
Hexachlorobenzene	<0.05	0.05	ug/L							

Surrogate: Tetrachloro-m-xylene	0.532		ug/L	0.600		88.7	10-121			
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LCS (1HC0740-BS1)	Prepared: 03/13/24 13:19 Analyzed: 03/25/24 13:50									
Alpha-BHC	0.243	0.05	ug/L	0.250		97.0	33-123			
Gamma-BHC [Lindane]	0.213	0.05	ug/L	0.250		85.3	34-120			
Beta-BHC	0.233	0.05	ug/L	0.250		93.3	33-125			
Heptachlor	0.242	0.05	ug/L	0.250		96.6	32-117			
Delta-BHC	0.248	0.05	ug/L	0.250		99.4	24-140			
Aldrin	0.224	0.05	ug/L	0.250		89.4	29-122			
Heptachlor Epoxide	0.235	0.05	ug/L	0.250		94.1	37-137			
Endosulfan I	0.245	0.05	ug/L	0.250		97.8	27-141			
4,4'-DDE	0.248	0.05	ug/L	0.250		99.1	38-147			



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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0740 - 3510C NP/OC Sep Fnl - EPA 8081

LCS (1HC0740-BS1)										
Prepared: 03/13/24 13:19 Analyzed: 03/25/24 13:50										
Dieldrin	0.230	0.05	ug/L	0.250		91.8	32-137			
Endrin	0.265	0.05	ug/L	0.250		106	25-142			
4,4'-DDD	0.236	0.05	ug/L	0.250		94.4	43-146			
Endosulfan II	0.238	0.05	ug/L	0.250		95.2	36-140			
4,4'-DDT	0.262	0.05	ug/L	0.250		105	39-140			
Endrin Aldehyde	0.219	0.05	ug/L	0.250		87.5	17-150			
Endosulfan Sulfate	0.226	0.05	ug/L	0.250		90.6	41-135			
Methoxychlor	0.268	0.05	ug/L	0.250		107	40-148			
Surrogate: Tetrachloro-m-xylene	0.500		ug/L	0.600		83.3	10-121			

LCS Dup (1HC0740-BSD1)										
Prepared: 03/13/24 13:19 Analyzed: 03/25/24 14:04										
Alpha-BHC	0.266	0.05	ug/L	0.250		107	33-123	9.31	30	
Gamma-BHC [Lindane]	0.235	0.05	ug/L	0.250		94.1	34-120	9.82	30	
Beta-BHC	0.263	0.05	ug/L	0.250		105	33-125	12.1	30	
Heptachlor	0.269	0.05	ug/L	0.250		108	32-117	10.8	30	
Delta-BHC	0.279	0.05	ug/L	0.250		112	24-140	11.5	30	
Aldrin	0.249	0.05	ug/L	0.250		99.8	29-122	10.9	30	
Heptachlor Epoxide	0.270	0.05	ug/L	0.250		108	37-137	13.8	30	
Endosulfan I	0.280	0.05	ug/L	0.250		112	27-141	13.4	30	
4,4'-DDE	0.282	0.05	ug/L	0.250		113	38-147	13.0	30	
Dieldrin	0.267	0.05	ug/L	0.250		107	32-137	15.1	30	
Endrin	0.310	0.05	ug/L	0.250		124	25-142	15.7	30	
4,4'-DDD	0.272	0.05	ug/L	0.250		109	43-146	14.1	30	
Endosulfan II	0.272	0.05	ug/L	0.250		109	36-140	13.3	30	
4,4'-DDT	0.304	0.05	ug/L	0.250		122	39-140	14.8	30	
Endrin Aldehyde	0.177	0.05	ug/L	0.250		70.8	17-150	21.1	30	
Endosulfan Sulfate	0.259	0.05	ug/L	0.250		104	41-135	13.4	30	
Methoxychlor	0.320	0.05	ug/L	0.250		128	40-148	17.8	30	
Surrogate: Tetrachloro-m-xylene	0.551		ug/L	0.600		91.9	10-121			

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0741 - 3510C NP/OC Sep Fnl - EPA 8082

Blank (1HC0741-BLK1)										
Prepared: 03/13/24 13:20 Analyzed: 03/25/24 13:35										
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							



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CERTIFICATE OF ANALYSIS

1HC0539

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Determination of Polychlorinated Biphenyls (PCB)</b>										
<b>Batch 1HC0741 - 3510C NP/OC Sep Fnl - EPA 8082</b>										
<b>Blank (1HC0741-BLK1)</b> Prepared: 03/13/24 13:20 Analyzed: 03/25/24 13:35										
Arochlor 1254	<0.20	0.20	ug/L							
Arochlor 1260	<0.20	0.20	ug/L							
Surrogate: Tetrachloro-m-xylene	0.521		ug/L	0.600		86.8	38-121			
Surrogate: Decachlorobiphenyl	0.445		ug/L	0.600		74.2	25-119			
<b>LCS (1HC0741-BS1)</b> Prepared: 03/13/24 13:20 Analyzed: 03/25/24 14:19										
Arochlor 1016	2.233	0.20	ug/L	2.60		85.9	25-126			
Arochlor 1260	2.290	0.20	ug/L	2.60		88.1	29-142			
Surrogate: Tetrachloro-m-xylene	0.521		ug/L	0.600		86.9	38-121			
Surrogate: Decachlorobiphenyl	0.356		ug/L	0.600		59.3	25-119			
<b>LCS Dup (1HC0741-BSD1)</b> Prepared: 03/13/24 13:20 Analyzed: 03/25/24 14:34										
Arochlor 1016	2.350	0.20	ug/L	2.60		90.4	25-126	5.10	30	
Arochlor 1260	2.441	0.20	ug/L	2.60		93.9	29-142	6.37	30	
Surrogate: Tetrachloro-m-xylene	0.528		ug/L	0.600		88.1	38-121			
Surrogate: Decachlorobiphenyl	0.342		ug/L	0.600		56.9	25-119			
<b>Determination of Conventional Chemistry Parameters</b>										
<b>Batch 1HC0492 - Wet Chem Preparation - EPA 376.2</b>										
<b>Blank (1HC0492-BLK1)</b> Prepared: 03/08/24 15:34 Analyzed: 03/08/24 16:17										
Sulfide, total	<0.10	0.10	mg/L							
<b>LCS (1HC0492-BS1)</b> Prepared: 03/08/24 15:34 Analyzed: 03/08/24 16:17										
Sulfide, total	0.197	0.10	mg/L	0.31		62.7	59-110			
<b>Matrix Spike (1HC0492-MS1)</b> Source: 1HC0490-01 Prepared: 03/08/24 15:34 Analyzed: 03/08/24 16:17										
Sulfide, total	3.87	1.5	mg/L	4.7	2.33	32.6	50-150			
<b>Matrix Spike Dup (1HC0492-MSD1)</b> Source: 1HC0490-01 Prepared: 03/08/24 15:34 Analyzed: 03/08/24 16:17										
Sulfide, total	5.90	1.5	mg/L	4.7	2.33	75.6	50-150	41.6	30	QM-07
<b>Batch 1HC0553 - Wet Chem Preparation - 2320B</b>										
<b>Blank (1HC0553-BLK1)</b> Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40										
Alkalinity, as CaCO3	<10	10	mg/L							
<b>LCS (1HC0553-BS1)</b> Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40										
Alkalinity, as CaCO3	46.2	10	mg/L	50.0		92.3	88-114			
<b>Matrix Spike (1HC0553-MS1)</b> Source: 1HC0539-10 Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40										
Alkalinity, as CaCO3	890	50	mg/L	250	695	78.0	74-122			
<b>Matrix Spike Dup (1HC0553-MSD1)</b> Source: 1HC0539-10 Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40										



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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0553 - Wet Chem Preparation - 2320B

<b>Matrix Spike Dup (1HC0553-MSD1)</b>	<b>Source: 1HC0539-10</b>		Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40							
Alkalinity, as CaCO3	934	50	mg/L	250	695	95.8	74-122	4.88	10	

Batch 1HC0610 - Wet Chem Preparation - EPA 9010B

<b>Blank (1HC0610-BLK1)</b>	Prepared: 03/11/24 16:49 Analyzed: 03/12/24 15:27									
Cyanide, total	<0.005	0.005	mg/L							

<b>LCS (1HC0610-BS1)</b>	Prepared: 03/11/24 16:49 Analyzed: 03/12/24 15:27									
Cyanide, total	0.0253	0.005	mg/L	0.0300		84.4	66-136			

<b>Matrix Spike (1HC0610-MS1)</b>	<b>Source: 1HC0190-02</b>		Prepared: 03/11/24 16:49 Analyzed: 03/12/24 15:27							
Cyanide, total	0.0257	0.005	mg/L	0.0300	ND	85.5	59-153			

<b>Matrix Spike Dup (1HC0610-MSD1)</b>	<b>Source: 1HC0190-02</b>		Prepared: 03/11/24 16:49 Analyzed: 03/12/24 15:27							
Cyanide, total	0.0276	0.005	mg/L	0.0300	ND	91.9	59-153	7.18	30	

Batch 1HC0645 - Wet Chem Preparation - SM 4500 H+ B

<b>Duplicate (1HC0645-DUP1)</b>	<b>Source: 1HC0539-10</b>		Prepared: 03/12/24 13:41 Analyzed: 03/12/24 14:33							
pH	6.6	0.5	pH		6.6			0.0150	10	

<b>Reference (1HC0645-SRM1)</b>	Prepared: 03/12/24 13:41 Analyzed: 03/12/24 14:33									
pH	7.1	0.5	pH	7.00		101	90-110			

<b>Reference (1HC0645-SRM2)</b>	Prepared: 03/12/24 13:41 Analyzed: 03/12/24 14:33									
pH	7.0	0.5	pH	7.00		101	90-110			

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0520 - EPA 3005A Total Recoverable Metals - EPA 6020A

<b>Blank (1HC0520-BLK1)</b>	Prepared: 03/11/24 08:51 Analyzed: 03/12/24 04:54									
Arsenic, total	<0.0040	0.0040	mg/L							

<b>LCS (1HC0520-BS1)</b>	Prepared: 03/11/24 08:51 Analyzed: 03/12/24 05:00									
Arsenic, total	0.0990	0.0040	mg/L	0.100		99.0	80-120			

<b>Matrix Spike (1HC0520-MS1)</b>	<b>Source: 1HC0590-01</b>		Prepared: 03/11/24 08:51 Analyzed: 03/12/24 05:19							
Arsenic, total	0.105	0.0040	mg/L	0.100	0.0086	96.8	75-125			

<b>Matrix Spike Dup (1HC0520-MSD1)</b>	<b>Source: 1HC0590-01</b>		Prepared: 03/11/24 08:51 Analyzed: 03/12/24 05:37							
Arsenic, total	0.108	0.0040	mg/L	0.100	0.0086	99.3	75-125	2.28	20	

<b>Post Spike (1HC0520-PS1)</b>	<b>Source: 1HC0590-01</b>		Prepared: 03/11/24 08:51 Analyzed: 03/12/24 05:43							
Arsenic, total	0.0889		mg/L	0.0800	0.0084	101	80-120			

Batch 1HC0594 - EPA 7470A Hg Water - EPA 7470A

<b>Blank (1HC0594-BLK1)</b>	Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:33									
Mercury, total	<0.00050	0.00050	mg/L							



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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0594 - EPA 7470A Hg Water - EPA 7470A</b>										
<b>LCS (1HC0594-BS1)</b> Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:35										
Mercury, total	0.00252	0.00050	mg/L	0.00250		101	80-120			
<b>Matrix Spike (1HC0594-MS1)</b> Source: 1HC0539-12 Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:40										
Mercury, total	0.00249	0.00050	mg/L	0.00250	ND	99.6	75-125			
<b>Matrix Spike Dup (1HC0594-MSD1)</b> Source: 1HC0539-12 Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:42										
Mercury, total	0.00242	0.00050	mg/L	0.00250	ND	96.9	75-125	2.69	20	
<b>Batch 1HC0698 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Blank (1HC0698-BLK1)</b> Prepared: 03/13/24 08:55 Analyzed: 03/15/24 04:54										
Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0040	0.0040	mg/L							
Barium, total	<0.0040	0.0040	mg/L							
Beryllium, total	<0.0040	0.0040	mg/L							
Cadmium, total	<0.0008	0.0008	mg/L							
Chromium, total	<0.0080	0.0080	mg/L							
Cobalt, total	<0.0004	0.0004	mg/L							
Copper, total	<0.0040	0.0040	mg/L							
Lead, total	<0.0040	0.0040	mg/L							
Nickel, total	<0.0040	0.0040	mg/L							
Selenium, total	<0.0040	0.0040	mg/L							
Silver, total	<0.0040	0.0040	mg/L							
Thallium, total	<0.0020	0.0020	mg/L							
Tin, total	<0.0200	0.0200	mg/L							
Vanadium, total	<0.0200	0.0200	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							
<b>LCS (1HC0698-BS1)</b> Prepared: 03/13/24 08:55 Analyzed: 03/15/24 05:00										
Antimony, total	0.0957	0.0020	mg/L	0.100		95.7	80-120			
Arsenic, total	0.0923	0.0040	mg/L	0.100		92.3	80-120			
Barium, total	0.101	0.0040	mg/L	0.100		101	80-120			
Beryllium, total	0.0951	0.0040	mg/L	0.100		95.1	80-120			
Cadmium, total	0.0931	0.0008	mg/L	0.100		93.1	80-120			
Chromium, total	0.0930	0.0080	mg/L	0.100		93.0	80-120			
Cobalt, total	0.0889	0.0004	mg/L	0.100		88.9	80-120			
Copper, total	0.0873	0.0040	mg/L	0.100		87.3	80-120			
Lead, total	0.0938	0.0040	mg/L	0.100		93.8	80-120			
Nickel, total	0.0896	0.0040	mg/L	0.100		89.6	80-120			
Selenium, total	0.0958	0.0040	mg/L	0.100		95.8	80-120			
Silver, total	0.0961	0.0040	mg/L	0.100		96.1	80-120			
Thallium, total	0.0924	0.0020	mg/L	0.100		92.4	80-120			
Tin, total	0.0933	0.0200	mg/L	0.100		93.3	80-120			
Vanadium, total	0.0947	0.0200	mg/L	0.100		94.7	80-120			
Zinc, total	0.0947	0.0200	mg/L	0.100		94.7	80-120			
<b>Matrix Spike (1HC0698-MS1)</b> Source: 1HC0539-01 Prepared: 03/13/24 08:55 Analyzed: 03/15/24 05:12										



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CERTIFICATE OF ANALYSIS

1HC0539

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0698 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Matrix Spike (1HC0698-MS1)</b> Source: 1HC0539-01 Prepared: 03/13/24 08:55 Analyzed: 03/15/24 05:12										
Antimony, total	0.0972	0.0020	mg/L	0.100	ND	97.2	75-125			
Arsenic, total	0.0944	0.0040	mg/L	0.100	0.0012	93.2	75-125			
Barium, total	0.252	0.0040	mg/L	0.100	0.142	110	75-125			
Beryllium, total	0.0946	0.0040	mg/L	0.100	ND	94.6	75-125			
Cadmium, total	0.0925	0.0008	mg/L	0.100	ND	92.5	75-125			
Chromium, total	0.0922	0.0080	mg/L	0.100	0.0010	91.2	75-125			
Cobalt, total	0.0906	0.0004	mg/L	0.100	ND	90.6	75-125			
Copper, total	0.0841	0.0040	mg/L	0.100	ND	84.1	75-125			
Lead, total	0.0930	0.0040	mg/L	0.100	ND	93.0	75-125			
Nickel, total	0.0907	0.0040	mg/L	0.100	0.0017	89.0	75-125			
Selenium, total	0.0953	0.0040	mg/L	0.100	ND	95.3	75-125			
Silver, total	0.0959	0.0040	mg/L	0.100	ND	95.9	75-125			
Thallium, total	0.0932	0.0020	mg/L	0.100	0.0002	93.0	75-125			
Tin, total	0.0948	0.0200	mg/L	0.100	ND	94.8	75-125			
Vanadium, total	0.0981	0.0200	mg/L	0.100	ND	98.1	75-125			
Zinc, total	0.0925	0.0200	mg/L	0.100	ND	92.5	75-125			
<b>Matrix Spike Dup (1HC0698-MSD1)</b> Source: 1HC0539-01 Prepared: 03/13/24 08:55 Analyzed: 03/15/24 05:19										
Antimony, total	0.0987	0.0020	mg/L	0.100	ND	98.7	75-125	1.49	20	
Arsenic, total	0.0978	0.0040	mg/L	0.100	0.0012	96.6	75-125	3.49	20	
Barium, total	0.257	0.0040	mg/L	0.100	0.142	115	75-125	1.76	20	
Beryllium, total	0.0935	0.0040	mg/L	0.100	ND	93.5	75-125	1.14	20	
Cadmium, total	0.0921	0.0008	mg/L	0.100	ND	92.1	75-125	0.436	20	
Chromium, total	0.0923	0.0080	mg/L	0.100	0.0010	91.3	75-125	0.0945	20	
Cobalt, total	0.0922	0.0004	mg/L	0.100	ND	92.2	75-125	1.74	20	
Copper, total	0.0863	0.0040	mg/L	0.100	ND	86.3	75-125	2.65	20	
Lead, total	0.0927	0.0040	mg/L	0.100	ND	92.7	75-125	0.356	20	
Nickel, total	0.0918	0.0040	mg/L	0.100	0.0017	90.1	75-125	1.16	20	
Selenium, total	0.0988	0.0040	mg/L	0.100	ND	98.8	75-125	3.55	20	
Silver, total	0.0952	0.0040	mg/L	0.100	ND	95.2	75-125	0.738	20	
Thallium, total	0.0935	0.0020	mg/L	0.100	0.0002	93.3	75-125	0.376	20	
Tin, total	0.0959	0.0200	mg/L	0.100	ND	95.9	75-125	1.15	20	
Vanadium, total	0.0976	0.0200	mg/L	0.100	ND	97.6	75-125	0.546	20	
Zinc, total	0.0949	0.0200	mg/L	0.100	ND	94.9	75-125	2.48	20	
<b>Post Spike (1HC0698-PS1)</b> Source: 1HC0539-01 Prepared: 03/13/24 08:55 Analyzed: 03/15/24 05:37										
Antimony, total	0.0786		mg/L	0.0800	0.0001	98.0	80-120			
Arsenic, total	0.0783		mg/L	0.0800	0.0012	96.4	80-120			
Barium, total	0.228		mg/L	0.0800	0.139	111	80-120			
Beryllium, total	0.0750		mg/L	0.0800	0.00002	93.7	80-120			
Cadmium, total	0.0742		mg/L	0.0800	-0.00001	92.7	80-120			
Chromium, total	0.0760		mg/L	0.0800	0.0010	93.8	80-120			
Cobalt, total	0.0755		mg/L	0.0800	0.0002	94.2	80-120			
Copper, total	0.0706		mg/L	0.0800	0.0005	87.6	80-120			
Lead, total	0.0744		mg/L	0.0800	0.00002	93.0	80-120			

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0539

Table with columns: Determination of Total Metals, Result, RL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Notes. Includes data for Nickel, Selenium, Silver, Thallium, Tin, Vanadium, and Zinc.

Definitions

- C-17: The CCV recovery was outside established QC acceptance limits.
I-03: Analyte required to be analyzed within 15 minutes of sampling.
QM-07: The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD.
QR-02: The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable.
QS-02: The spike recovery for this QC sample exceeded established acceptance limits.
QS-03: The blank spike recovery was below established acceptance limits.
R-01: The Reporting Limit for this analyte has been raised to account for matrix interference.
RL: Reporting Limit
RPD: Relative Percent Difference
S-07: The surrogate recovery for this sample is outside of established control limits.

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.0°C

Cooler Inspection Checklist

Table with 4 columns: Item, Status, Description, Confirmation. Includes Custody Seals, COC/Labels Agree, and Received On Ice.

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.

Reviewed and Approved By:

Handwritten signature of Heather Murphy

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
05/02/24 11:15

CHAIN OF CUSTODY RECORD

**Keystone**  
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**SITE INFORMATION**

Sampler: TODD WHIPPLE

Project: SOILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 314  
Story City, IA 50246

**INVOICE TO**

Marcia Beeler  
South Central Iowa Landfill  
2520 State Hwy 02  
Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1HC0539

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-4 <u>BROKEN</u>	Water	GRAB	<u>3/6/24</u>	<u>—</u>	<u>0</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	—
-001	MW-18 <u>DRY</u>	Water	GRAB	<u>3/6/24</u>	<u>—</u>	<u>0</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	—
-001	GU-1 <u>DRY</u>	Water	GRAB	<u>3/6/24</u>	<u>—</u>	<u>0</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	—
-001	MW-1R <u>DRY</u>	Water	GRAB	<u>3/6/24</u>	<u>—</u>	<u>0</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	—
-001	MW-6A <u>DRY</u>	Water	GRAB	<u>3/6/24</u>	<u>—</u>	<u>0</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	—
-001	MW-21	Water	GRAB	<u>3/6/24</u>	<u>8:13</u>	<u>7</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>01</u>
-001	TILE-1	Water	GRAB	<u>3/6/24</u>	<u>13:13</u>	<u>7</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>02</u>

Relinquished By Todd Whipple Date/Time 3/7/24

Relinquished By [Signature] Date/Time 3-7-24 8:30

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

Remarks:



1 H C 0 5 3 9  
HLW Engineering  
PM: Heather Murphy

CHAIN OF CUSTODY RECORD

**Keystone**  
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**SITE INFORMATION**

Sampler: TODD WHIPPLE

Project: SOILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 214  
Story City, IA 50246

**INVOICE TO**

Marcia Beeler  
South Central Iowa Landfill  
2520 State Hwy 02  
Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1HLC0539

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	TILE 2	Water	GRAB	<u>3/6/24</u>	<u>13:03</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>03</u>
-001	MW-11C	Water	GRAB	<u>3/6/24</u>	<u>9:28</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>04</u>
-001	MW-39D	Water	GRAB	<u>3/6/24</u>	<u>11:47</u>	<u>1</u>	Indfil-app1-metals-6020	<u>05</u>
-001	MW-41D	Water	GRAB	<u>3/6/24</u>	<u>12:12</u>	<u>1</u>	Indfil-app1-metals-6020	<u>06</u>
-001	MW-42D	Water	GRAB	<u>3/6/24</u>	<u>10:02</u>	<u>1</u>	Indfil-app1-metals-6020	<u>07</u>
-001	MW-17R	Water	GRAB	<u>3/6/24</u>	<u>8:40</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>08</u>
-001	MW-28	Water	GRAB	<u>3/6/24</u>	<u>16:33</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>09</u>

Relinquished By Todd Whipple Date/Time 3/7/24

Relinquished By [Signature] Date/Time 3-7-24 8:30

Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

Remarks



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HLW Engineering  
PM: Heather Murphy

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

CHAIN OF CUSTODY RECORD

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**SITE INFORMATION**

Sampler: TODD WHIPPLE

Project: SOILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 214  
Story City, IA 50246

**INVOICE TO**

Marcia Beeler  
South Central Iowa Landfill  
2520 State Hwy 02  
Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1HC0539

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-8B	Water	GRAB	<u>3/6/24</u>	<u>14:40</u>	<u>11</u>	alk-caco3-2320 Indfill-app1-voc-group Indfill-app1-metals-6020 methane-rsk-175 ph-4500	<u>10</u>
-001	MW-9AR	Water	GRAB	<u>3/6/24</u>	<u>15:47</u>	<u>11</u>	alk-caco3-2320 Indfill-app1-voc-group Indfill-app1-metals-6020 methane-rsk-175 ph-4500	<u>11</u>
-001	MW-14D	Water	GRAB	<u>3/6/24</u>	<u>13:35</u>	<u>17</u>	Indfill-app2-inorg-6020 Indfill-app2-org	<u>12</u>
-001	MW-15R	Water	GRAB	<u>3/6/24</u>	<u>15:12</u>	<u>11</u>	alk-caco3-2320 Indfill-app1-voc-group Indfill-app1-metals-6020 methane-rsk-175 ph-4500	<u>13</u>
-001	SW-1 <u>DRY</u>	Water	GRAB	<u>3/6/24</u>	<u>—</u>	<u>0</u>	Indfill-app1-voc-group	<u>14</u>
-001	SW-2B	Water	GRAB	<u>3/6/24</u>	<u>17:01</u>	<u>6</u>	Indfill-app1-voc-group	<u>14 15</u>

Relinquished By Todd Whipple Date/Time 3/7/24

Relinquished By Todd Whipple Date/Time 3-7-24 8:30

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

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HLW Engineering  
PM: Heather Murphy

CHAIN OF CUSTODY RECORD

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**SITE INFORMATION**

Sampler: TODD WHIPPLE

Project: SOILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 314  
Story City, IA 50246

**INVOICE TO**

Marcia Beeler  
South Central Iowa Landfill  
2520 State Hwy 02  
Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1HC0539

Temperature \_\_\_\_\_

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	SW-102	Water	GRAB	3/16/24	16:55	6	Indfill-app1-voc-group	15 <sup>EE</sup> <del>15</del> <sub>SNT</sub>
-001	Duplicate	Water	GRAB	3/16/24	✓	1	<del>Indfill-app1-voc-group</del> Indfill-app1-metals-6020	16
-001	GU-2	Water	GRAB	3/16/24	10:58	7	Indfill-app1-voc-group Indfill-app1-metals-6020	17
-001	GU-A	Water	GRAB	3/16/24	11:14	7	Indfill-app1-voc-group Indfill-app1-metals-6020	18
-001	GU-B	Water	GRAB	3/16/24	10:48	7	Indfill-app1-voc-group Indfill-app1-metals-6020	19
-001	MW-44	Water	GRAB	3/16/24	14:11	17	Indfill-app2-inorg-6020 Indfill-app2-org	20
-001	MW-45A	Water	GRAB	3/16/24	10:21	7	Indfill-app1-voc-group Indfill-app1-metals-6020	21

Relinquished By Todd Whipple Date/Time 3/7/24

Relinquished By [Signature] Date/Time 3-7-24 8:30

Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

Remarks:



HLW Engineering  
PM: Heather Murphy

CHAIN OF CUSTODY RECORD

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**SITE INFORMATION**

Sampler: TODD WHIPPLE

Project: SCILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
HLW Engineering  
PO Box 314  
Story City, IA 50246

**INVOICE TO**

Marcia Beeler  
South Central Iowa Landfill  
2520 State Hwy 02  
Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1HC0539

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-38A <u>DRY</u>	Water	GRAB	<u>3/6/24</u>	<u>-</u>	<u>0</u>	Indfill-app1-voc-group Indfill-app1-metals-6020	<u>-</u>
-001	MW-45D	Water	GRAB	<u>3/6/24</u>	<u>10:35</u>	<u>7</u>	Indfill-app1-voc-group Indfill-app1-metals-6020	<u>22</u>
-001	MW-31 <u>DRY</u>	Water	GRAB	<u>3/6/24</u>	<u>-</u>	<u>0</u>	Indfill-app1-voc-group	<u>-</u>
-001	MW-32	Water	GRAB	<u>3/6/24</u>	<u>15:32</u>	<u>7</u>	as-t-6020 Indfill-app1-voc-group	<u>23</u>
-001	LW-26 <u>NO SAMPLE</u> <u>Hold for April</u>	Water	GRAB	<u>3/6/24</u>	<u>-</u>	<u>0</u>	alk-caco3-2320 bod-5210 cod-t-410.4 co-t-6020 Indfill-app1-voc-group methane-rsk-175 nh3-timberline-lf ph-4500 so4-9056-w tds-i-1750-85 tss-i-3765-85	<u>-</u>

Relinquished By Todd Whipple Date/Time 3/7/24

Relinquished By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received for Lab By Todd Whipple Date/Time 3-7-24 8:30

Remarks:



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HLW Engineering  
PM: Heather Murphy

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Project Description

6022

For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248

---

Heather Murphy

Customer Relationship Specialist

Thursday, April 18, 2024

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

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

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

**HLW Engineering**

Todd Whipple  
PO Box 314  
Story City, IA 50248

**Project Name: 6022**

Project / PO Number: SCILA - New Regs  
Received: 04/02/2024  
Reported: 04/18/2024

---

**Sample Summary Report**

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
LW-26	1HD0170-01	Water	GRAB		04/01/24 10:50	04/02/24 10:15



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Analytical Testing Parameters

<b>Client Sample ID:</b>	LW-26	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	04/01/2024 10:50
<b>Lab Sample ID:</b>	1HD0170-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Bromomethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Chloroethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Acetone	<10.0	10.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Chloroform	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Benzene	9.7	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Dibromomethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Toluene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Chlorobenzene	8.2	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Xylenes, total	<2.0	2.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Styrene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM

Microbac Laboratories, Inc., Newton

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | www.microbac.com



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

<b>Client Sample ID:</b> LW-26	<b>Collected By:</b> Whipple, Todd
<b>Sample Matrix:</b> Water	<b>Collection Date:</b> 04/01/2024 10:50
<b>Lab Sample ID:</b> 1HD0170-01	

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,4-Dichlorobenzene	3.7	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: Dibromofluoromethane	91.8	Limit: 80-126	% Rec	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: Dibromofluoromethane	91.8	Limit: 75-136	% Rec	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: 1,2-Dichloroethane-d4	95.1	Limit: 61-142	% Rec	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: 1,2-Dichloroethane-d4	95.1	Limit: 63-138	% Rec	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: Toluene-d8	98.5	Limit: 87-116	% Rec	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: Toluene-d8	98.5	Limit: 82-121	% Rec	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		04/04/24 0000	04/05/24 0034	CSM
Surrogate: 4-Bromofluorobenzene	101	Limit: 80-116	% Rec	1		04/04/24 0000	04/05/24 0034	CSM

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	1520	50	mg/L	1		04/03/24 0855	04/03/24 1616	BSS
<b>EPA 410.4</b>								
COD, total	833	540	mg/L	10		04/09/24 0817	04/09/24 1359	CHP
<b>SM 4500 H+ B</b>								
pH	7.0	0.5	pH	1	I-03	04/03/24 1630	04/03/24 1636	BSS
<b>SM 5210 B</b>								
BOD (5 day)	56	6	mg/L	3		04/03/24 0934	04/03/24 1015	MND
<b>TIMBERLINE</b>								
Nitrogen, Ammonia	252	100	mg/L	100		04/08/24 0930	04/09/24 0815	LJS
<b>USGS I-1750-85</b>								
Total Dissolved Solids (TDS)	2350	5	mg/L	1		04/03/24 1437	04/04/24 0735	MEAH
<b>USGS I-3765-85</b>								
Total Suspended Solids (TSS)	4680	1	mg/L	1		04/04/24 1422	04/05/24 0901	RDH

Determination of Inorganic Anions	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 9056</b>								
Sulfate	16.2	5.0	mg/L	5		04/15/24 0000	04/15/24 1418	MID

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Cobalt, total	0.0112	0.0004	mg/L	4		04/08/24 0845	04/08/24 2350	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
2320B	1HD0200	1HD0170-01	LW-26
		1HD0200-BS1	
		1HD0200-MS1	1HD0170-01
		1HD0200-MSD1	1HD0170-01
		1HD0200-BLK1	
Method	Batch	Laboratory ID	Client / Source ID
SM 5210 B	1HD0206	1HD0206-BLK1	
		1HD0206-SRM1	
		1HD0170-01	LW-26
		1HD0206-DUP1	1HD0107-01
Method	Batch	Laboratory ID	Client / Source ID
USGS I-1750-85	1HD0248	1HD0248-BS1	
		1HD0248-DUP1	1HD0103-01
		1HD0248-BLK1	
		1HD0170-01	LW-26
Method	Batch	Laboratory ID	Client / Source ID
SM 4500 H+ B	1HD0267	1HD0267-SRM2	
		1HD0267-SRM1	
		1HD0267-DUP1	1HD0170-01
		1HD0170-01	LW-26
Method	Batch	Laboratory ID	Client / Source ID
USGS I-3765-85	1HD0335	1HD0335-BLK1	
		1HD0335-DUP1	1HD0154-01
		1HD0170-01	LW-26
		1HD0335-BS1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HD0359	1HD0359-BS1	
		1HD0359-BSD1	
		1HD0359-BLK1	
		1HD0170-01	LW-26
		1HD0359-MS1	1HD0315-01
1HD0359-MSD1	1HD0315-01		
Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HD0422	1HD0422-BLK1	
		1HD0422-BS1	



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CERTIFICATE OF ANALYSIS

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EPA 6020A	1HD0422	1HD0170-01	LW-26
		1HD0422-MS1	1HD0545-01
		1HD0422-MSD1	1HD0545-01
		1HD0422-PS1	1HD0545-01

Method	Batch	Laboratory ID	Client / Source ID
TIMBERLINE	1HD0437	1HD0437-MSD1	1HD0241-04
		1HD0437-MS1	1HD0241-04
		1HD0170-01	LW-26
		1HD0437-BS1	
		1HD0437-BLK1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 410.4	1HD0506	1HD0506-BS1	
		1HD0506-MSD1	1HD0142-01
		1HD0506-MS1	1HD0142-01
		1HD0170-01	LW-26
		1HD0506-BLK1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 9056	1HD0992	1HD0992-BLK1	
		1HD0992-MRL1	
		1HD0992-BS1	
		1HD0992-BSD1	
		1HD0170-01	LW-26
		1HD0992-MS1	1HD0211-01
		1HD0992-MSD1	1HD0211-01

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
<b>Batch 1HD0359 - EPA 5030B - EPA 8260B</b>										

Blank (1HD0359-BLK1)				Prepared: 04/04/24 00:00 Analyzed: 04/04/24 10:53						
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							



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HD0359 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HD0359-BLK1)</b>										
Prepared: 04/04/24 00:00 Analyzed: 04/04/24 10:53										
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	46.0		ug/L	50.2		91.7	80-126			
Surrogate: Dibromofluoromethane	46.0		ug/L	50.2		91.7	75-136			
Surrogate: 1,2-Dichloroethane-d4	47.6		ug/L	50.1		95.1	63-138			
Surrogate: 1,2-Dichloroethane-d4	47.6		ug/L	50.1		95.1	61-142			
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	87-116			
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	82-121			
Surrogate: 4-Bromofluorobenzene	49.6		ug/L	50.1		98.9	85-111			

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HD0359 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HD0359-BLK1)</b>										
Prepared: 04/04/24 00:00 Analyzed: 04/04/24 10:53										
Surrogate: 4-Bromofluorobenzene	49.6		ug/L	50.1		98.9	80-116			
<b>LCS (1HD0359-BS1)</b>										
Prepared: 04/04/24 00:00 Analyzed: 04/04/24 09:44										
Chloromethane	35.67	1.0	ug/L	30.6		116	63-155			
Vinyl Chloride	29.82	1.0	ug/L	30.2		98.7	70-154			
Bromomethane	33.01	1.0	ug/L	28.8		115	52-176			
Chloroethane	33.39	1.0	ug/L	31.6		106	72-148			
Trichlorofluoromethane	28.72	1.0	ug/L	32.6		88.1	70-152			
1,1-Dichloroethylene	52.21	1.0	ug/L	50.0		104	70-148			
Acetone	109.8	10.0	ug/L	102		108	43-172			
Methyl Iodide	101.1	1.0	ug/L	99.7		101	69-170			
Carbon Disulfide	91.47	1.0	ug/L	101		90.6	72-162			
Methylene Chloride	48.21	5.0	ug/L	50.0		96.4	68-142			
Acrylonitrile	98.75	5.0	ug/L	100		98.4	67-144			
trans-1,2-Dichloroethylene	49.52	1.0	ug/L	50.0		99.0	66-148			
1,1-Dichloroethane	48.06	1.0	ug/L	50.0		96.1	66-143			
Vinyl Acetate	90.07	5.0	ug/L	102		88.4	43-153			
cis-1,2-Dichloroethylene	59.15	1.0	ug/L	49.5		120	71-149			
2-Butanone (MEK)	95.08	10.0	ug/L	103		92.0	52-159			
Bromochloromethane	50.92	1.0	ug/L	50.0		102	69-143			
Chloroform	48.54	1.0	ug/L	50.0		97.1	69-144			
1,1,1-Trichloroethane	40.31	1.0	ug/L	50.0		80.7	62-129			
Carbon Tetrachloride	43.42	1.0	ug/L	50.0		86.8	63-141			
Benzene	50.55	1.0	ug/L	50.0		101	71-134			
1,2-Dichloroethane	48.02	1.0	ug/L	50.0		96.0	72-132			
Trichloroethylene	47.89	1.0	ug/L	50.0		95.8	71-135			
1,2-Dichloropropane	51.01	1.0	ug/L	50.0		102	69-136			
Dibromomethane	52.05	1.0	ug/L	50.0		104	73-147			
Bromodichloromethane	45.61	1.0	ug/L	50.0		91.2	68-129			
cis-1,3-Dichloropropene	47.66	1.0	ug/L	50.3		94.7	65-134			
4-Methyl-2-pentanone (MIBK)	101.4	5.0	ug/L	101		100	58-147			
Toluene	49.28	1.0	ug/L	50.0		98.6	72-133			
trans-1,3-Dichloropropene	45.84	1.0	ug/L	50.4		90.9	67-130			
1,1,2-Trichloroethane	49.33	1.0	ug/L	50.0		98.7	69-135			
Tetrachloroethylene	47.04	1.0	ug/L	50.0		94.1	69-130			
2-Hexanone (MBK)	104.3	5.0	ug/L	103		101	55-144			
Dibromochloromethane	48.39	1.0	ug/L	49.5		97.8	73-127			
1,2-Dibromoethane	49.34	1.0	ug/L	50.0		98.7	67-132			
Chlorobenzene	50.31	1.0	ug/L	50.0		101	72-123			
1,1,1,2-Tetrachloroethane	48.97	1.0	ug/L	50.0		97.9	73-127			
Ethylbenzene	47.97	1.0	ug/L	50.0		95.9	71-127			
Xylenes, total	142.5	2.0	ug/L	150		95.0	74-127			
Styrene	48.08	1.0	ug/L	50.0		96.2	66-126			



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD0359 - EPA 5030B - EPA 8260B

LCS (1HD0359-BS1)

Prepared: 04/04/24 00:00 Analyzed: 04/04/24 09:44

Bromoform	47.92	1.0	ug/L	50.0		95.8	68-130			
1,2,3-Trichloropropane	50.98	1.0	ug/L	50.0		102	63-136			
trans-1,4-Dichloro-2-butene	86.87	5.0	ug/L	104		83.6	54-134			
1,1,2,2-Tetrachloroethane	50.12	1.0	ug/L	49.8		101	61-131			
1,4-Dichlorobenzene	48.61	1.0	ug/L	50.0		97.2	70-129			
1,2-Dichlorobenzene	47.75	1.0	ug/L	50.0		95.5	69-126			
1,2-Dibromo-3-chloropropane	47.70	5.0	ug/L	50.0		95.4	50-143			

Surrogate: Dibromofluoromethane	46.9		ug/L	50.2		93.6	80-126			
Surrogate: Dibromofluoromethane	46.9		ug/L	50.2		93.6	75-136			
Surrogate: 1,2-Dichloroethane-d4	46.9		ug/L	50.1		93.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	46.9		ug/L	50.1		93.7	61-142			
Surrogate: Toluene-d8	50.2		ug/L	50.4		99.6	87-116			
Surrogate: Toluene-d8	50.2		ug/L	50.4		99.6	82-121			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.1		101	85-111			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.1		101	80-116			

LCS Dup (1HD0359-BS1)

Prepared: 04/04/24 00:00 Analyzed: 04/04/24 10:07

Chloromethane	33.07	1.0	ug/L	30.6		108	63-155	7.56	24	
Vinyl Chloride	27.42	1.0	ug/L	30.2		90.7	70-154	8.39	25	
Bromomethane	31.06	1.0	ug/L	28.8		108	52-176	6.09	27	
Chloroethane	30.94	1.0	ug/L	31.6		97.8	72-148	7.62	25	
Trichlorofluoromethane	26.62	1.0	ug/L	32.6		81.6	70-152	7.59	26	
1,1-Dichloroethylene	48.08	1.0	ug/L	50.0		96.2	70-148	8.24	24	
Acetone	109.0	10.0	ug/L	102		107	43-172	0.686	30	
Methyl Iodide	94.58	1.0	ug/L	99.7		94.9	69-170	6.62	30	
Carbon Disulfide	83.87	1.0	ug/L	101		83.0	72-162	8.67	24	
Methylene Chloride	46.67	5.0	ug/L	50.0		93.3	68-142	3.25	21	
Acrylonitrile	97.82	5.0	ug/L	100		97.5	67-144	0.946	24	
trans-1,2-Dichloroethylene	46.29	1.0	ug/L	50.0		92.6	66-148	6.74	27	
1,1-Dichloroethane	45.43	1.0	ug/L	50.0		90.9	66-143	5.63	24	
Vinyl Acetate	98.41	5.0	ug/L	102		96.6	43-153	8.85	30	
cis-1,2-Dichloroethylene	56.07	1.0	ug/L	49.5		113	71-149	5.35	26	
2-Butanone (MEK)	92.85	10.0	ug/L	103		89.9	52-159	2.37	27	
Bromochloromethane	50.17	1.0	ug/L	50.0		100	69-143	1.48	23	
Chloroform	46.11	1.0	ug/L	50.0		92.2	69-144	5.13	23	
1,1,1-Trichloroethane	36.96	1.0	ug/L	50.0		74.0	62-129	8.67	24	
Carbon Tetrachloride	40.16	1.0	ug/L	50.0		80.3	63-141	7.80	25	
Benzene	47.70	1.0	ug/L	50.0		95.4	71-134	5.80	24	
1,2-Dichloroethane	47.74	1.0	ug/L	50.0		95.5	72-132	0.585	24	
Trichloroethylene	44.44	1.0	ug/L	50.0		88.9	71-135	7.47	24	
1,2-Dichloropropane	49.30	1.0	ug/L	50.0		98.6	69-136	3.41	24	
Dibromomethane	52.07	1.0	ug/L	50.0		104	73-147	0.0384	25	
Bromodichloromethane	43.86	1.0	ug/L	50.0		87.7	68-129	3.91	22	
cis-1,3-Dichloropropene	46.81	1.0	ug/L	50.3		93.0	65-134	1.80	23	





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD0359 - EPA 5030B - EPA 8260B

LCS Dup (1HD0359-BSD1)

Prepared: 04/04/24 00:00 Analyzed: 04/04/24 10:07

4-Methyl-2-pentanone (MIBK)	100.3	5.0	ug/L	101		98.9	58-147	1.10	27	
Toluene	46.45	1.0	ug/L	50.0		92.9	72-133	5.91	24	
trans-1,3-Dichloropropene	45.55	1.0	ug/L	50.4		90.3	67-130	0.635	24	
1,1,2-Trichloroethane	49.57	1.0	ug/L	50.0		99.1	69-135	0.485	23	
Tetrachloroethylene	43.69	1.0	ug/L	50.0		87.4	69-130	7.38	25	
2-Hexanone (MBK)	103.4	5.0	ug/L	103		100	55-144	0.780	25	
Dibromochloromethane	48.16	1.0	ug/L	49.5		97.3	73-127	0.476	22	
1,2-Dibromoethane	49.51	1.0	ug/L	50.0		99.0	67-132	0.344	24	
Chlorobenzene	48.00	1.0	ug/L	50.0		96.0	72-123	4.70	23	
1,1,1,2-Tetrachloroethane	47.36	1.0	ug/L	50.0		94.7	73-127	3.34	24	
Ethylbenzene	44.92	1.0	ug/L	50.0		89.8	71-127	6.57	26	
Xylenes, total	134.7	2.0	ug/L	150		89.8	74-127	5.64	25	
Styrene	46.05	1.0	ug/L	50.0		92.1	66-126	4.31	23	
Bromoform	47.16	1.0	ug/L	50.0		94.3	68-130	1.60	23	
1,2,3-Trichloropropane	50.84	1.0	ug/L	50.0		102	63-136	0.275	24	
trans-1,4-Dichloro-2-butene	86.19	5.0	ug/L	104		83.0	54-134	0.786	27	
1,1,2,2-Tetrachloroethane	49.74	1.0	ug/L	49.8		99.8	61-131	0.761	29	
1,4-Dichlorobenzene	47.20	1.0	ug/L	50.0		94.4	70-129	2.94	24	
1,2-Dichlorobenzene	47.09	1.0	ug/L	50.0		94.2	69-126	1.39	26	
1,2-Dibromo-3-chloropropane	47.63	5.0	ug/L	50.0		95.3	50-143	0.147	30	

Surrogate: Dibromofluoromethane	46.9		ug/L	50.2		93.5	80-126			
Surrogate: Dibromofluoromethane	46.9		ug/L	50.2		93.5	75-136			
Surrogate: 1,2-Dichloroethane-d4	46.6		ug/L	50.1		93.2	63-138			
Surrogate: 1,2-Dichloroethane-d4	46.6		ug/L	50.1		93.2	61-142			
Surrogate: Toluene-d8	50.1		ug/L	50.4		99.4	87-116			
Surrogate: Toluene-d8	50.1		ug/L	50.4		99.4	82-121			
Surrogate: 4-Bromofluorobenzene	50.2		ug/L	50.1		100	85-111			
Surrogate: 4-Bromofluorobenzene	50.2		ug/L	50.1		100	80-116			

Matrix Spike (1HD0359-MS1)

Source: 1HD0315-01

Prepared: 04/04/24 00:00 Analyzed: 04/05/24 00:57

Chloromethane	355.1	10.0	ug/L	306	ND	116	61-152			
Vinyl Chloride	301.0	10.0	ug/L	302	ND	99.6	66-149			
Bromomethane	313.8	10.0	ug/L	288	ND	109	43-171			
Chloroethane	331.8	10.0	ug/L	316	ND	105	69-148			
Trichlorofluoromethane	288.7	10.0	ug/L	326	ND	88.5	62-163			
1,1-Dichloroethylene	523.1	10.0	ug/L	500	ND	105	70-148			
Acetone	999.9	100	ug/L	1020	ND	98.0	45-173			
Methyl Iodide	1008	10.0	ug/L	997	ND	101	62-167			
Carbon Disulfide	883.6	10.0	ug/L	1010	ND	87.5	71-163			
Methylene Chloride	478.8	50.0	ug/L	500	ND	95.8	69-140			
Acrylonitrile	957.2	50.0	ug/L	1000	ND	95.4	58-151			
trans-1,2-Dichloroethylene	490.2	10.0	ug/L	500	ND	98.0	69-144			
1,1-Dichloroethane	478.3	10.0	ug/L	500	ND	95.7	70-138			
Vinyl Acetate	941.6	50.0	ug/L	1020	ND	92.4	58-142			

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CERTIFICATE OF ANALYSIS

1HD0170

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD0359 - EPA 5030B - EPA 8260B

Matrix Spike (1HD0359-MS1) Source: 1HD0315-01 Prepared: 04/04/24 00:00 Analyzed: 04/05/24 00:57

cis-1,2-Dichloroethylene	564.9	10.0	ug/L	495	ND	114	68-151			
2-Butanone (MEK)	916.2	100	ug/L	1030	ND	88.7	50-160			
Bromochloromethane	514.0	10.0	ug/L	500	ND	103	65-143			
Chloroform	478.2	10.0	ug/L	500	ND	95.6	71-143			
1,1,1-Trichloroethane	397.2	10.0	ug/L	500	ND	79.5	63-133			
Carbon Tetrachloride	424.5	10.0	ug/L	500	ND	84.9	63-142			
Benzene	503.2	10.0	ug/L	500	ND	101	69-133			
1,2-Dichloroethane	476.1	10.0	ug/L	500	ND	95.2	63-138			
Trichloroethylene	481.4	10.0	ug/L	500	ND	96.3	71-133			
1,2-Dichloropropane	503.7	10.0	ug/L	500	ND	101	69-132			
Dibromomethane	519.1	10.0	ug/L	500	ND	104	70-147			
Bromodichloromethane	440.6	10.0	ug/L	500	ND	88.1	67-130			
cis-1,3-Dichloropropene	442.0	10.0	ug/L	503	ND	87.8	61-126			
4-Methyl-2-pentanone (MIBK)	980.9	50.0	ug/L	1010	ND	96.7	55-147			
Toluene	488.4	10.0	ug/L	500	ND	97.7	71-133			
trans-1,3-Dichloropropene	420.1	10.0	ug/L	504	ND	83.3	63-124			
1,1,2-Trichloroethane	493.5	10.0	ug/L	500	ND	98.7	69-133			
Tetrachloroethylene	462.9	10.0	ug/L	500	ND	92.6	70-124			
2-Hexanone (MBK)	979.5	50.0	ug/L	1030	ND	94.8	53-141			
Dibromochloromethane	460.7	10.0	ug/L	495	ND	93.1	74-122			
1,2-Dibromoethane	485.9	10.0	ug/L	500	ND	97.2	66-127			
Chlorobenzene	490.4	10.0	ug/L	500	ND	98.1	76-116			
1,1,1,2-Tetrachloroethane	473.8	10.0	ug/L	500	ND	94.8	77-121			
Ethylbenzene	470.3	10.0	ug/L	500	ND	94.1	73-124			
Xylenes, total	1399	20.0	ug/L	1500	ND	93.3	75-123			
Styrene	464.8	10.0	ug/L	500	ND	93.0	70-120			
Bromoform	445.4	10.0	ug/L	500	ND	89.1	70-124			
1,2,3-Trichloropropane	501.1	10.0	ug/L	500	ND	100	62-135			
trans-1,4-Dichloro-2-butene	759.7	50.0	ug/L	1040	ND	73.1	50-120			
1,1,2,2-Tetrachloroethane	467.0	10.0	ug/L	498	ND	93.7	63-126			
1,4-Dichlorobenzene	464.7	10.0	ug/L	500	ND	92.9	72-119			
1,2-Dichlorobenzene	456.4	10.0	ug/L	500	ND	91.3	71-117			
1,2-Dibromo-3-chloropropane	425.7	50.0	ug/L	500	ND	85.1	49-134			

Surrogate: Dibromofluoromethane	470		ug/L	502		93.7	80-126			
Surrogate: Dibromofluoromethane	470		ug/L	502		93.7	75-136			
Surrogate: 1,2-Dichloroethane-d4	466		ug/L	501		93.0	63-138			
Surrogate: 1,2-Dichloroethane-d4	466		ug/L	501		93.0	61-142			
Surrogate: Toluene-d8	503		ug/L	504		99.9	87-116			
Surrogate: Toluene-d8	503		ug/L	504		99.9	82-121			
Surrogate: 4-Bromofluorobenzene	506		ug/L	501		101	85-111			
Surrogate: 4-Bromofluorobenzene	506		ug/L	501		101	80-116			

Matrix Spike Dup (1HD0359-MSD1) Source: 1HD0315-01 Prepared: 04/04/24 00:00 Analyzed: 04/05/24 01:20

Chloromethane	330.1	10.0	ug/L	306	ND	108	61-152	7.30	26	
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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD0170

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HD0359 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike Dup (1HD0359-MSD1)</b>	<b>Source: 1HD0315-01</b>			Prepared: 04/04/24 00:00 Analyzed: 04/05/24 01:20						
Vinyl Chloride	283.4	10.0	ug/L	302	ND	93.8	66-149	6.02	23	
Bromomethane	303.9	10.0	ug/L	288	ND	106	43-171	3.21	29	
Chloroethane	312.9	10.0	ug/L	316	ND	98.9	69-148	5.86	25	
Trichlorofluoromethane	273.3	10.0	ug/L	326	ND	83.8	62-163	5.48	25	
1,1-Dichloroethylene	488.8	10.0	ug/L	500	ND	97.8	70-148	6.78	22	
Acetone	964.8	100	ug/L	1020	ND	94.6	45-173	3.57	30	
Methyl Iodide	952.1	10.0	ug/L	997	ND	95.5	62-167	5.70	24	
Carbon Disulfide	844.8	10.0	ug/L	1010	ND	83.6	71-163	4.49	22	
Methylene Chloride	459.5	50.0	ug/L	500	ND	91.9	69-140	4.11	19	
Acrylonitrile	937.6	50.0	ug/L	1000	ND	93.4	58-151	2.07	15	
trans-1,2-Dichloroethylene	461.6	10.0	ug/L	500	ND	92.3	69-144	6.01	22	
1,1-Dichloroethane	452.6	10.0	ug/L	500	ND	90.5	70-138	5.52	20	
Vinyl Acetate	938.9	50.0	ug/L	1020	ND	92.1	58-142	0.287	24	
cis-1,2-Dichloroethylene	542.2	10.0	ug/L	495	ND	110	68-151	4.10	22	
2-Butanone (MEK)	885.1	100	ug/L	1030	ND	85.7	50-160	3.45	23	
Bromochloromethane	491.5	10.0	ug/L	500	ND	98.3	65-143	4.48	22	
Chloroform	455.6	10.0	ug/L	500	ND	91.1	71-143	4.84	21	
1,1,1-Trichloroethane	372.5	10.0	ug/L	500	ND	74.5	63-133	6.42	23	
Carbon Tetrachloride	403.1	10.0	ug/L	500	ND	80.6	63-142	5.17	22	
Benzene	479.9	10.0	ug/L	500	ND	96.0	69-133	4.74	18	
1,2-Dichloroethane	466.0	10.0	ug/L	500	ND	93.2	63-138	2.14	20	
Trichloroethylene	458.5	10.0	ug/L	500	ND	91.7	71-133	4.87	23	
1,2-Dichloropropane	491.5	10.0	ug/L	500	ND	98.3	69-132	2.45	20	
Dibromomethane	506.8	10.0	ug/L	500	ND	101	70-147	2.40	22	
Bromodichloromethane	427.4	10.0	ug/L	500	ND	85.5	67-130	3.04	21	
cis-1,3-Dichloropropene	435.0	10.0	ug/L	503	ND	86.4	61-126	1.60	21	
4-Methyl-2-pentanone (MIBK)	959.4	50.0	ug/L	1010	ND	94.6	55-147	2.22	23	
Toluene	465.2	10.0	ug/L	500	ND	93.0	71-133	4.87	19	
trans-1,3-Dichloropropene	417.1	10.0	ug/L	504	ND	82.7	63-124	0.717	21	
1,1,2-Trichloroethane	484.4	10.0	ug/L	500	ND	96.9	69-133	1.86	19	
Tetrachloroethylene	441.2	10.0	ug/L	500	ND	88.2	70-124	4.80	24	
2-Hexanone (MBK)	968.5	50.0	ug/L	1030	ND	93.8	53-141	1.13	24	
Dibromochloromethane	462.2	10.0	ug/L	495	ND	93.4	74-122	0.325	21	
1,2-Dibromoethane	478.6	10.0	ug/L	500	ND	95.7	66-127	1.51	23	
Chlorobenzene	476.5	10.0	ug/L	500	ND	95.3	76-116	2.88	21	
1,1,1,2-Tetrachloroethane	468.4	10.0	ug/L	500	ND	93.7	77-121	1.15	25	
Ethylbenzene	450.4	10.0	ug/L	500	ND	90.1	73-124	4.32	20	
Xylenes, total	1347	20.0	ug/L	1500	ND	89.8	75-123	3.82	20	
Styrene	454.5	10.0	ug/L	500	ND	90.9	70-120	2.24	23	
Bromoform	443.3	10.0	ug/L	500	ND	88.7	70-124	0.473	22	
1,2,3-Trichloropropane	493.5	10.0	ug/L	500	ND	98.7	62-135	1.53	28	
trans-1,4-Dichloro-2-butene	760.5	50.0	ug/L	1040	ND	73.2	50-120	0.105	26	
1,1,2,2-Tetrachloroethane	467.4	10.0	ug/L	498	ND	93.8	63-126	0.0856	24	

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CERTIFICATE OF ANALYSIS

1HD0170

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HD0359 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike Dup (1HD0359-MSD1)</b>	<b>Source: 1HD0315-01</b>			Prepared: 04/04/24 00:00 Analyzed: 04/05/24 01:20						
1,4-Dichlorobenzene	456.5	10.0	ug/L	500	ND	91.3	72-119	1.78	24	
1,2-Dichlorobenzene	451.4	10.0	ug/L	500	ND	90.3	71-117	1.10	24	
1,2-Dibromo-3-chloropropane	435.4	50.0	ug/L	500	ND	87.1	49-134	2.25	28	
Surrogate: Dibromofluoromethane	468		ug/L	502		93.2	80-126			
Surrogate: Dibromofluoromethane	468		ug/L	502		93.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	465		ug/L	501		92.8	63-138			
Surrogate: 1,2-Dichloroethane-d4	465		ug/L	501		92.8	61-142			
Surrogate: Toluene-d8	504		ug/L	504		100	87-116			
Surrogate: Toluene-d8	504		ug/L	504		100	82-121			
Surrogate: 4-Bromofluorobenzene	509		ug/L	501		101	85-111			
Surrogate: 4-Bromofluorobenzene	509		ug/L	501		101	80-116			

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HD0200 - Wet Chem Preparation - 2320B</b>										
<b>Blank (1HD0200-BLK1)</b>				Prepared: 04/03/24 08:55 Analyzed: 04/03/24 16:16						
Alkalinity, as CaCO3	<10	10	mg/L							
<b>LCS (1HD0200-BS1)</b>				Prepared: 04/03/24 08:55 Analyzed: 04/03/24 16:16						
Alkalinity, as CaCO3	46.1	10	mg/L	50.0		92.2	88-114			
<b>Matrix Spike (1HD0200-MS1)</b>	<b>Source: 1HD0170-01</b>			Prepared: 04/03/24 08:55 Analyzed: 04/03/24 16:16						
Alkalinity, as CaCO3	1750	50	mg/L	250	1520	91.6	74-122			
<b>Matrix Spike Dup (1HD0200-MSD1)</b>	<b>Source: 1HD0170-01</b>			Prepared: 04/03/24 08:55 Analyzed: 04/03/24 16:16						
Alkalinity, as CaCO3	1780	50	mg/L	250	1520	104	74-122	1.78	10	

<b>Batch 1HD0206 - General Prep Micro - SM 5210 B</b>										
<b>Blank (1HD0206-BLK1)</b>				Prepared: 04/03/24 09:34 Analyzed: 04/03/24 10:06						
BOD (5 day)	<2	2	mg/L							B-06
<b>Duplicate (1HD0206-DUP1)</b>	<b>Source: 1HD0107-01</b>			Prepared: 04/03/24 09:34 Analyzed: 04/03/24 11:23						
BOD (5 day)	269	60	mg/L		231			15.2	29	
<b>Reference (1HD0206-SRM1)</b>				Prepared: 04/03/24 09:34 Analyzed: 04/03/24 10:12						
BOD (5 day)	186	100	mg/L	198		93.7	84.6-115.4			

<b>Batch 1HD0248 - Wet Chem Preparation - USGS I-1750-85</b>										
<b>Blank (1HD0248-BLK1)</b>				Prepared: 04/03/24 14:37 Analyzed: 04/04/24 07:35						
Total Dissolved Solids (TDS)	<5	5	mg/L							
<b>LCS (1HD0248-BS1)</b>				Prepared: 04/03/24 14:37 Analyzed: 04/04/24 07:35						
Total Dissolved Solids (TDS)	91	5	mg/L	100		90.7	71-114			
<b>Duplicate (1HD0248-DUP1)</b>	<b>Source: 1HD0103-01</b>			Prepared: 04/03/24 14:37 Analyzed: 04/04/24 07:35						



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CERTIFICATE OF ANALYSIS

1HD0170

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HD0248 - Wet Chem Preparation - USGS I-1750-85</b>										
<b>Duplicate (1HD0248-DUP1)</b> Source: 1HD0103-01 Prepared: 04/03/24 14:37 Analyzed: 04/04/24 07:35										
Total Dissolved Solids (TDS)	941	5	mg/L		868			8.11	30	
<b>Batch 1HD0267 - Wet Chem Preparation - SM 4500 H+ B</b>										
<b>Duplicate (1HD0267-DUP1)</b> Source: 1HD0170-01 Prepared: 04/03/24 16:30 Analyzed: 04/03/24 16:36										
pH	7.0	0.5	pH		7.0			0.0575	10	
<b>Reference (1HD0267-SRM1)</b> Prepared: 04/03/24 16:30 Analyzed: 04/03/24 16:36										
pH	7.0	0.5	pH	7.00		101	90-110			
<b>Reference (1HD0267-SRM2)</b> Prepared: 04/03/24 16:30 Analyzed: 04/03/24 16:36										
pH	7.0	0.5	pH	7.00		100	90-110			
<b>Batch 1HD0335 - Wet Chem Preparation - USGS I-3765-85</b>										
<b>Blank (1HD0335-BLK1)</b> Prepared: 04/04/24 14:22 Analyzed: 04/05/24 09:01										
Total Suspended Solids (TSS)	<1	1	mg/L							
<b>LCS (1HD0335-BS1)</b> Prepared: 04/04/24 14:22 Analyzed: 04/05/24 09:01										
Total Suspended Solids (TSS)	12.7	1	mg/L	15.0		84.7	74-114			
<b>Duplicate (1HD0335-DUP1)</b> Source: 1HD0154-01 Prepared: 04/04/24 14:22 Analyzed: 04/05/24 09:01										
Total Suspended Solids (TSS)	1210	1	mg/L		828			37.5	30	QR-04
<b>Batch 1HD0437 - General Prep HPLC/IC - TIMBERLINE</b>										
<b>Blank (1HD0437-BLK1)</b> Prepared: 04/08/24 09:30 Analyzed: 04/09/24 08:15										
Nitrogen, Ammonia	<1.00	1.00	mg/L							
<b>LCS (1HD0437-BS1)</b> Prepared: 04/08/24 09:30 Analyzed: 04/09/24 08:15										
Nitrogen, Ammonia	5.16	1.00	mg/L	5.00		103	90-114			
<b>Matrix Spike (1HD0437-MS1)</b> Source: 1HD0241-04 Prepared: 04/08/24 09:30 Analyzed: 04/09/24 08:15										
Nitrogen, Ammonia	5.07	1.00	mg/L	5.00	0.0726	99.9	84-115			
<b>Matrix Spike Dup (1HD0437-MSD1)</b> Source: 1HD0241-04 Prepared: 04/08/24 09:30 Analyzed: 04/09/24 08:15										
Nitrogen, Ammonia	5.14	1.00	mg/L	5.00	0.0726	101	84-115	1.49	20	
<b>Batch 1HD0506 - Wet Chem Preparation - EPA 410.4</b>										
<b>Blank (1HD0506-BLK1)</b> Prepared: 04/09/24 08:17 Analyzed: 04/09/24 13:59										
COD, total	<54	54	mg/L							
<b>LCS (1HD0506-BS1)</b> Prepared: 04/09/24 08:17 Analyzed: 04/09/24 13:59										
COD, total	162	54	mg/L	150		108	90-110			
<b>Matrix Spike (1HD0506-MS1)</b> Source: 1HD0142-01 Prepared: 04/09/24 08:17 Analyzed: 04/09/24 13:59										
COD, total	383	108	mg/L	300	105	92.6	90-110			
<b>Matrix Spike Dup (1HD0506-MSD1)</b> Source: 1HD0142-01 Prepared: 04/09/24 08:17 Analyzed: 04/09/24 13:59										
COD, total	399	108	mg/L	300	105	98.0	90-110	4.15	10	



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CERTIFICATE OF ANALYSIS

1HD0170

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD0992 - General Prep HPLC/IC - EPA 9056

<b>Blank (1HD0992-BLK1)</b>				Prepared: 04/15/24 00:00 Analyzed: 04/15/24 11:34						
Sulfate	<1.0	1.0	mg/L							
<b>LCS (1HD0992-BS1)</b>				Prepared: 04/15/24 00:00 Analyzed: 04/15/24 12:11						
Sulfate	32.21	1.0	mg/L	33.8		95.2	80-120			
<b>LCS Dup (1HD0992-BSD1)</b>				Prepared: 04/15/24 00:00 Analyzed: 04/15/24 12:29						
Sulfate	32.82	1.0	mg/L	33.8		97.0	80-120	1.88	10	
<b>Matrix Spike (1HD0992-MS1)</b>				Source: 1HD0211-01 Prepared: 04/15/24 00:00 Analyzed: 04/15/24 14:54						
Sulfate	476.6	10.0	mg/L	338	121.0	105	87-113			
<b>Matrix Spike Dup (1HD0992-MSD1)</b>				Source: 1HD0211-01 Prepared: 04/15/24 00:00 Analyzed: 04/15/24 15:12						
Sulfate	479.4	10.0	mg/L	338	121.0	106	87-113	0.582	10	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD0422 - EPA 3005A Total Recoverable Metals - EPA 6020A

<b>Blank (1HD0422-BLK1)</b>				Prepared: 04/08/24 08:45 Analyzed: 04/08/24 23:31						
Cobalt, total	<0.0004	0.0004	mg/L							
<b>LCS (1HD0422-BS1)</b>				Prepared: 04/08/24 08:45 Analyzed: 04/08/24 23:38						
Cobalt, total	0.0986	0.0004	mg/L	0.100		98.6	80-120			
<b>Matrix Spike (1HD0422-MS1)</b>				Source: 1HD0545-01 Prepared: 04/08/24 08:45 Analyzed: 04/09/24 00:33						
Cobalt, total	0.0993	0.0004	mg/L	0.100	0.0003	99.0	75-125			
<b>Matrix Spike Dup (1HD0422-MSD1)</b>				Source: 1HD0545-01 Prepared: 04/08/24 08:45 Analyzed: 04/09/24 00:39						
Cobalt, total	0.0989	0.0004	mg/L	0.100	0.0003	98.6	75-125	0.377	20	
<b>Post Spike (1HD0422-PS1)</b>				Source: 1HD0545-01 Prepared: 04/08/24 08:45 Analyzed: 04/09/24 00:45						
Cobalt, total	0.0767		mg/L	0.0800	0.0003	95.5	80-120			

Definitions

- B-06:** Unseeded Blank equals .78mg/L
- I-03:** Analyte required to be analyzed within 15 minutes of sampling. Analysis performed upon receipt of sample at laboratory.
- QR-04:** The Duplicate RPD for this analyte exceeded acceptance limits.
- RL:** Reporting Limit
- RPD:** Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.3°C



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CERTIFICATE OF ANALYSIS

1HD0170

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  
04/18/24 11:34

# Keystone

LABORATORIES, INC.

CHAIN OF

600 E. 17th St. S.  
Newton, IA 50208  
Phone: 641-792-8451  
Fax: 641-792-7989



HLW Engineering  
PM: Heather Murphy

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

PAGE 1 OF 1

PRINT OR TYPE INFORMATION BELOW

SAMPLER: TODD WHIPPLE  
SITE NAME: SCILA  
ADDRESS: \_\_\_\_\_  
CITY/ST/ZIP: Winterset, IA  
PHONE: \_\_\_\_\_

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

BILL TO:  
NAME: MARCIA Beeler, MGE  
COMPANY NAME: SCILA  
ADDRESS: 2520 Hwy 92  
CITY/ST/ZIP: Winterset IA 50273  
PHONE: \_\_\_\_\_

Keystone Quote No: \_\_\_\_\_  
(If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED										LAB USE ONLY		
																	LABORATORY WORK ORDER NO.	LABORATORY SAMPLE NUMBER	
																		<u>1HDO170</u>	
<u>LW-26</u>	<u>4/1/24</u>	<u>10:50</u>	<u>LW-26</u>	<u>15</u>	<u>W</u>	<u>G</u>												<u>0.3</u> °C	<u>01</u>

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>4/2/24</u>	Received by: (Signature)	Date	Turn-Around: <input type="checkbox"/> Standard <input type="checkbox"/> Rush
Relinquished by: (Signature)	Date	Received for Lab by: (Signature) <u>[Signature]</u>	Date <u>4/2/24</u>	Remarks:
	Time		Time <u>10:15</u>	





Midwest Laboratories  
13611 B Street  
Omaha, NE 68144  
P 402-334-7770  
F 402-334-9121  
www.midwestlabs.com

12 April 2024

Work Order: 1607197

KEYSTONE LABORATORIES INC - 7367  
600 E 17TH ST S #B  
NEWTON, IA 50208-  
RE: Dissolved Gases in Water

Enclosed are the results of analyses for samples received by the laboratory on 2024-04-05 12:33. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Heather Ramig". The signature is written in a cursive, flowing style.

Heather Ramig  
Project Manager  
hramig@midwestlabs.com



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 Omaha, NE 68144  
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 www.midwestlabs.com

KEYSTONE LABORATORIES INC - 7367  
 600 E 17TH ST S #B  
 NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
 2024-04-12 15:30

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1HD0170-01H	1607197-01	Aqueous	2024-04-01 10:50	2024-04-05 12:33

**Containers used for the following analyses:**

1607197-01 A: RSK 175

**Analysis Results Reviewed by:**

RSK 175 reviewed by nmh9.



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KEYSTONE LABORATORIES INC - 7367 600 E 17TH ST S #B NEWTON, IA 50208-	Project: Dissolved Gases in Water  Project Manager: KEYSTONE LABORATORIES INC - 7367	<b>Reported:</b> 2024-04-12 15:30
---	--	--------------------------------------

**Sample ID: 1HD0170-01H**  
**Laboratory ID: 1607197-01**  
**Sampled Date/Time: 2024-04-01 10:50**

Analyte	Result	Reporting Limit	Units	Method	Prepared	Analyzed	Analyst	(Container) / Notes
---------	--------	-----------------	-------	--------	----------	----------	---------	---------------------

**Headspace Analysis**

Methane	1260	4.41	ppb	RSK 175	2024-04-10	2024-04-10	alt8	(A)
Ethylene	<	7.73	ppb	RSK 175	2024-04-10	2024-04-10	alt8	(A)
Ethane	<	8.28	ppb	RSK 175	2024-04-10	2024-04-10	alt8	(A)



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KEYSTONE LABORATORIES INC - 7367  
 600 E 17TH ST S #B  
 NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
 2024-04-12 15:30

**Headspace Analysis - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B942288</b>										
<b>Blank (B942288-BLK1)</b>										
Prepared & Analyzed: 2024-04-10										
Methane	<	4.41	ppb							
Ethylene	<	7.73	ppb							
Ethane	<	8.28	ppb							
<b>LCS (B942288-BS1)</b>										
Prepared & Analyzed: 2024-04-10										
Methane	20.6	4.41	ppb	22.0		94	85-115			
Ethylene	34.8	7.73	ppb	38.7		90	85-115			
Ethane	36.7	8.28	ppb	41.3		89	85-115			
<b>Duplicate (B942288-DUP1)</b>										
<b>Source: 1607197-01</b>										
Prepared & Analyzed: 2024-04-10										
Methane	1160	4.41	ppb		1260			8	20	
Ethylene	<	7.73	ppb		<				20	
Ethane	<	8.28	ppb		<				20	



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KEYSTONE LABORATORIES INC - 7367  
 600 E 17TH ST S #B  
 NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
 2024-04-12 15:30

**Non-Certified Analyses included in this Report**

Method	Analyte
<i>RSK 175 in Aqueous</i>	Methane
	Ethylene
	Ethane

Code	Description	Number	Expires
FL	Florida Department of Health	E87918	06/30/2024
IA	Iowa Department of Natural Resources	064	05/01/2025
KS	Kansas Department of Health and Environment	E-10402	04/30/2024
NE	State of Nebraska Dept of Health & Human Services	NE-04-05	06/30/2024
OK	Oklahoma Department of Environmental Quality	2022-068	08/31/2023
TX	Texas Commission on Environmental Quality	T104704416-23-17	07/31/2024
UT	State of Utah Department of Health	NE000012023-13	07/31/2024
WA	State of Washington Department of Ecology	C912	06/07/2024



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KEYSTONE LABORATORIES INC - 7367  
600 E 17TH ST S #B  
NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
2024-04-12 15:30

### Notes and Definitions

- < Less than reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

EPA 524.2, EPA 624, EPA 8260, OA-1, TCLP VOC, GRO, and all microbiological analyses are conducted in the facility located at 13606 B Street, Omaha, NE 68144. All other analyses are conducted in the main facility located at 13611 B Street, Omaha, NE 68144.



SUBCONTRACTED CHAIN OF CUSTODY

1HD0170

NO# 1607197

SENDING LABORATORY:

Microbac Laboratories, Inc., Newton  
600 East 17th Street South  
Newton, IA 50208  
Phone: 641-792-8451  
Lab Manager: Heather Murphy  
Email: heather.murphy@microbac.com

RECEIVING LABORATORY:

Midwest Laboratories, Inc  
13611 B St  
Omaha, NE 68144-3693  
Phone: (402) 334-7770

**Project Info:**

Project Type: Landfills Report TAT: 10  
Project Location: IA Due: 04/16/24 17:00

Sample ID: 1HD0170-01

Sampled: 04/01/24 10:50

Sampler: Whipple, Todd

Matrix: Water

Description: LW-26

Analysis	Method	Analysis Due	Expires
methane-rsk-175	RSK-175	04/16/24 17:00	04/29/24 10:50
Ethane	0.01 mg/L Ethylene		0.01 mg/L
Methane	0.007 mg/L		

Containers Supplied:

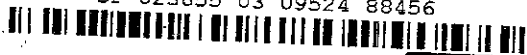
H: VH-40 ml Vial Hydrochloric  
J: VH-40 ml Vial Hydrochloric

I: VH-40 ml Vial Hydrochloric

Midwest Laboratories

SP 023655 03 09524 88456

04/04/2024



BOOKORDER:

1607197

COC

Sticker #: 1



Declare Val	\$0.00
C.O.D. Amt	\$0.00
Base Charge	\$6.63
DAS Fee	\$0.00
Pkg Handling	\$0.00
Pkg Total	\$6.63
Shipment H/C	\$0.00
Shipment Tot	\$6.63

WEIGHT: 3

Zip/Zone 68144/2 Oversize (N)  
PU Tag (N) DAS (N) UNB (N)  
Hazmat (N) AOD (N)

*0.0 AN*

*Amy Heister 4/4/24*

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_



Midwest Laboratories  
13611 B Street  
Omaha, NE 68144  
P 402-334-7770  
F 402-334-9121  
www.midwestlabs.com

12 April 2024

Work Order: 1607197

KEYSTONE LABORATORIES INC - 7367

600 E 17TH ST S #B

NEWTON, IA 50208-

RE: Dissolved Gases in Water

Enclosed are the results of analyses for samples received by the laboratory on 2024-04-05 12:33. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Heather Ramig". The signature is written in a cursive, flowing style.

Heather Ramig  
Project Manager  
hramig@midwestlabs.com





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KEYSTONE LABORATORIES INC - 7367  
 600 E 17TH ST S #B  
 NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
 2024-04-12 15:30

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1HD0170-01H	1607197-01	Aqueous	2024-04-01 10:50	2024-04-05 12:33

**Containers used for the following analyses:**

1607197-01 A: RSK 175

**Analysis Results Reviewed by:**

RSK 175 reviewed by nmh9.



Midwest Laboratories  
 13611 B Street  
 Omaha, NE 68144  
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 F 402-334-9121  
 www.midwestlabs.com

KEYSTONE LABORATORIES INC - 7367 600 E 17TH ST S #B NEWTON, IA 50208-	Project: Dissolved Gases in Water  Project Manager: KEYSTONE LABORATORIES INC - 7367	<b>Reported:</b> 2024-04-12 15:30
---	--	--------------------------------------

**Sample ID: 1HD0170-01H**  
**Laboratory ID: 1607197-01**  
**Sampled Date/Time: 2024-04-01 10:50**

Analyte	Result	Reporting Limit	Units	Method	Prepared	Analyzed	Analyst	(Container) / Notes
---------	--------	-----------------	-------	--------	----------	----------	---------	---------------------

**Headspace Analysis**

Methane	1260	4.41	ppb	RSK 175	2024-04-10	2024-04-10	alt8	(A)
Ethylene	<	7.73	ppb	RSK 175	2024-04-10	2024-04-10	alt8	(A)
Ethane	<	8.28	ppb	RSK 175	2024-04-10	2024-04-10	alt8	(A)



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KEYSTONE LABORATORIES INC - 7367  
 600 E 17TH ST S #B  
 NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
 2024-04-12 15:30

**Headspace Analysis - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch B942288**

**Blank (B942288-BLK1)**

Prepared & Analyzed: 2024-04-10

Methane	<	4.41	ppb							
Ethylene	<	7.73	ppb							
Ethane	<	8.28	ppb							

**LCS (B942288-BS1)**

Prepared & Analyzed: 2024-04-10

Methane	20.6	4.41	ppb	22.0		94	85-115			
Ethylene	34.8	7.73	ppb	38.7		90	85-115			
Ethane	36.7	8.28	ppb	41.3		89	85-115			

**Duplicate (B942288-DUP1)**

Source: 1607197-01

Prepared & Analyzed: 2024-04-10

Methane	1160	4.41	ppb		1260			8	20	
Ethylene	<	7.73	ppb		<				20	
Ethane	<	8.28	ppb		<				20	



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KEYSTONE LABORATORIES INC - 7367  
 600 E 17TH ST S #B  
 NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
 2024-04-12 15:30

**Non-Certified Analyses included in this Report**

Method	Analyte
<i>RSK 175 in Aqueous</i>	Methane
	Ethylene
	Ethane

Code	Description	Number	Expires
FL	Florida Department of Health	E87918	06/30/2024
IA	Iowa Department of Natural Resources	064	05/01/2025
KS	Kansas Department of Health and Environment	E-10402	04/30/2024
NE	State of Nebraska Dept of Health & Human Services	NE-04-05	06/30/2024
OK	Oklahoma Department of Environmental Quality	2022-068	08/31/2023
TX	Texas Commission on Environmental Quality	T104704416-23-17	07/31/2024
UT	State of Utah Department of Health	NE000012023-13	07/31/2024
WA	State of Washington Department of Ecology	C912	06/07/2024



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Omaha, NE 68144  
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F 402-334-9121  
www.midwestlabs.com

KEYSTONE LABORATORIES INC - 7367  
600 E 17TH ST S #B  
NEWTON, IA 50208-

Project: Dissolved Gases in Water

Project Manager: KEYSTONE LABORATORIES INC - 7367

**Reported:**  
2024-04-12 15:30

### Notes and Definitions

- < Less than reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

EPA 524.2, EPA 624, EPA 8260, OA-1, TCLP VOC, GRO, and all microbiological analyses are conducted in the facility located at 13606 B Street, Omaha, NE 68144. All other analyses are conducted in the main facility located at 13611 B Street, Omaha, NE 68144.



SUBCONTRACTED CHAIN OF CUSTODY

1HD0170

NO# 1607197

SENDING LABORATORY:

Microbac Laboratories, Inc., Newton  
600 East 17th Street South  
Newton, IA 50208  
Phone: 641-792-8451  
Lab Manager: Heather Murphy  
Email: heather.murphy@microbac.com

RECEIVING LABORATORY:

Midwest Laboratories, Inc  
13611 B St  
Omaha, NE 68144-3693  
Phone: (402) 334-7770

**Project Info:**

Project Type: Landfills Report TAT: 10  
Project Location: IA Due: 04/16/24 17:00

Sample ID: 1HD0170-01

Sampled: 04/01/24 10:50

Sampler: Whipple, Todd

Matrix: Water

Description: LW-26

Analysis	Method	Analysis Due	Expires
methane-rsk-175	RSK-175	04/16/24 17:00	04/29/24 10:50
Ethane	0.01 mg/L Ethylene		0.01 mg/L
Methane	0.007 mg/L		

Containers Supplied:

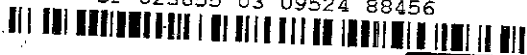
H: VH-40 ml Vial Hydrochloric  
J: VH-40 ml Vial Hydrochloric

I: VH-40 ml Vial Hydrochloric

Midwest Laboratories

SP 023655 03 09524 88456

04/04/2024



BOOKORDER:

1607197

COC

Sticker #: 1



Declare Val	\$0.00
C.O.D. Amt	\$0.00
Base Charge	\$6.63
DAS Fee	\$0.00
Pkg Handling	\$0.00
Pkg Total	\$6.63
Shipment H/C	\$0.00
Shipment Tot	\$6.63

WEIGHT: 3

Zip/Zone 68144/2 Oversize (N)  
PU Tag (N) DAS (N) UNB (N)  
Hazmat (N) AOD (N)

0.0 AV

*Amy Heister 4/4/24*

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF0864

Project Description

6022

For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248

---

Heather Murphy

Customer Relationship Specialist

Tuesday, June 18, 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 Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | [www.microbac.com](http://www.microbac.com)





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF0864

**HLW Engineering**

Todd Whipple  
PO Box 314  
Story City, IA 50248

**Project Name: 6022**

Project / PO Number: N/A  
Received: 06/13/2024  
Reported: 06/18/2024

---

**Sample Summary Report**

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-45A	1HF0864-01	Aqueous	GRAB		06/03/24 10:28	06/13/24 11:02
MW-45D	1HF0864-02	Aqueous	GRAB		06/03/24 10:36	06/13/24 11:02
GU-2	1HF0864-03	Aqueous	GRAB		06/03/24 10:41	06/13/24 11:02
GU-A	1HF0864-04	Aqueous	GRAB		06/03/24 10:18	06/13/24 11:02
GU-B	1HF0864-05	Aqueous	GRAB		06/03/24 10:23	06/13/24 11:02



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF0864

Analytical Testing Parameters

Client Sample ID:	MW-45A	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	06/03/2024 10:28
Lab Sample ID:	1HF0864-01		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Barium, total	<b>0.0948</b>	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Copper, total	<b>0.0050</b>	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Lead, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Nickel, total	<b>0.0046</b>	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Silver, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		06/13/24 1609	06/15/24 0250	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		06/13/24 1609	06/15/24 0250	RVV

Client Sample ID:	MW-45D	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	06/03/2024 10:36
Lab Sample ID:	1HF0864-02		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Arsenic, total	<b>0.0079</b>	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Barium, total	<b>0.0323</b>	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Cobalt, total	<b>0.0008</b>	0.0004	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Copper, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Lead, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Silver, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		06/13/24 1609	06/15/24 0256	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		06/13/24 1609	06/15/24 0256	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF0864

<b>Client Sample ID:</b>	GU-2	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	06/03/2024 10:41
<b>Lab Sample ID:</b>	1HF0864-03		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0026	0.0020	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Barium, total	0.174	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Cobalt, total	0.0010	0.0004	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Copper, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Lead, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Nickel, total	0.0222	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Selenium, total	0.320	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Silver, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		06/13/24 1609	06/15/24 0302	RVV
Zinc, total	0.238	0.0200	mg/L	4		06/13/24 1609	06/15/24 0302	RVV

<b>Client Sample ID:</b>	GU-A	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	06/03/2024 10:18
<b>Lab Sample ID:</b>	1HF0864-04		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0032	0.0020	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Barium, total	0.224	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Cadmium, total	0.0015	0.0008	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Cobalt, total	0.0016	0.0004	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Copper, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Lead, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Nickel, total	0.0275	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Selenium, total	0.0232	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Silver, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		06/13/24 1609	06/15/24 0308	RVV
Zinc, total	0.160	0.0200	mg/L	4		06/13/24 1609	06/15/24 0308	RVV



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CERTIFICATE OF ANALYSIS

1HF0864

<b>Client Sample ID:</b>	GU-B	<b>Collected By:</b>	Whipple, Todd
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	06/03/2024 10:23
<b>Lab Sample ID:</b>	1HF0864-05		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0038	0.0020	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Barium, total	0.0364	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Copper, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Lead, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Nickel, total	0.0559	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Selenium, total	0.0153	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Silver, total	<0.0040	0.0040	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		06/13/24 1609	06/15/24 0315	RVV
Zinc, total	0.783	0.0200	mg/L	4		06/13/24 1609	06/15/24 0315	RVV



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CERTIFICATE OF ANALYSIS

1HF0864

Batch Log Summary

Table with 4 columns: Method, Batch, Laboratory ID, Client / Source ID. Lists various EPA 6020A methods and their corresponding batch and source information.

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

Table with 11 columns: Determination of Total Metals, Result, RL, Units, Spike Level, Source Result, %REC Limits, RPD, RPD Limit, Notes. Header for Batch 1HF0720 - EPA 3005A Total Recoverable Metals - EPA 6020A.

Blank (1HF0720-BLK1)

Prepared: 06/13/24 16:09 Analyzed: 06/15/24 01:55

Table listing results for various metals (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc) with columns for Result, RL, and Units.

LCS (1HF0720-BS1)

Prepared: 06/13/24 16:09 Analyzed: 06/15/24 02:01

Table listing results for various metals (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel) with columns for Result, RL, Units, Spike Level, Source Result, %REC Limits, RPD, RPD Limit, Notes.



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF0864

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HF0720 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>LCS (1HF0720-BS1)</b> Prepared: 06/13/24 16:09 Analyzed: 06/15/24 02:01										
Selenium, total	0.1003	0.0040	mg/L	0.100		100	80-120			
Silver, total	0.0989	0.0040	mg/L	0.100		98.9	80-120			
Thallium, total	0.0978	0.0020	mg/L	0.100		97.8	80-120			
Vanadium, total	0.0982	0.0200	mg/L	0.100		98.2	80-120			
Zinc, total	0.0995	0.0200	mg/L	0.100		99.5	80-120			
<b>Matrix Spike (1HF0720-MS1)</b> Source: 1HF0855-01 Prepared: 06/13/24 16:09 Analyzed: 06/15/24 02:19										
Antimony, total	0.0962	0.0020	mg/L	0.100	0.0005	96.2	75-125			
Arsenic, total	0.104	0.0040	mg/L	0.100	0.0052	98.8	75-125			
Barium, total	0.121	0.0040	mg/L	0.100	0.0175	104	75-125			
Beryllium, total	0.0915	0.0040	mg/L	0.100	ND	91.5	75-125			
Cadmium, total	0.0915	0.0008	mg/L	0.100	0.0003	91.3	75-125			
Chromium, total	0.0912	0.0080	mg/L	0.100	ND	91.2	75-125			
Cobalt, total	0.0995	0.0004	mg/L	0.100	0.0013	98.2	75-125			
Copper, total	0.0900	0.0040	mg/L	0.100	0.0022	87.8	75-125			
Lead, total	0.0928	0.0040	mg/L	0.100	ND	92.8	75-125			
Nickel, total	0.0986	0.0040	mg/L	0.100	0.0043	94.3	75-125			
Selenium, total	0.0984	0.0040	mg/L	0.100	ND	98.4	75-125			
Silver, total	0.0946	0.0040	mg/L	0.100	ND	94.6	75-125			
Thallium, total	0.0939	0.0020	mg/L	0.100	0.0002	93.7	75-125			
Vanadium, total	0.101	0.0200	mg/L	0.100	ND	101	75-125			
Zinc, total	0.0991	0.0200	mg/L	0.100	ND	99.1	75-125			
<b>Matrix Spike Dup (1HF0720-MSD1)</b> Source: 1HF0855-01 Prepared: 06/13/24 16:09 Analyzed: 06/15/24 02:26										
Antimony, total	0.0987	0.0020	mg/L	0.100	0.0005	98.7	75-125	2.57	20	
Arsenic, total	0.106	0.0040	mg/L	0.100	0.0052	101	75-125	2.07	20	
Barium, total	0.122	0.0040	mg/L	0.100	0.0175	105	75-125	0.787	20	
Beryllium, total	0.0926	0.0040	mg/L	0.100	ND	92.6	75-125	1.18	20	
Cadmium, total	0.0924	0.0008	mg/L	0.100	0.0003	92.2	75-125	0.960	20	
Chromium, total	0.0928	0.0080	mg/L	0.100	ND	92.8	75-125	1.76	20	
Cobalt, total	0.100	0.0004	mg/L	0.100	0.0013	99.1	75-125	0.938	20	
Copper, total	0.0902	0.0040	mg/L	0.100	0.0022	88.0	75-125	0.266	20	
Lead, total	0.0951	0.0040	mg/L	0.100	ND	95.1	75-125	2.50	20	
Nickel, total	0.0993	0.0040	mg/L	0.100	0.0043	95.0	75-125	0.629	20	
Selenium, total	0.0991	0.0040	mg/L	0.100	ND	99.1	75-125	0.784	20	
Silver, total	0.0965	0.0040	mg/L	0.100	ND	96.5	75-125	1.95	20	
Thallium, total	0.0960	0.0020	mg/L	0.100	0.0002	95.9	75-125	2.25	20	
Vanadium, total	0.104	0.0200	mg/L	0.100	ND	104	75-125	2.78	20	
Zinc, total	0.0991	0.0200	mg/L	0.100	ND	99.1	75-125	0.0174	20	
<b>Post Spike (1HF0720-PS1)</b> Source: 1HF0855-01 Prepared: 06/13/24 16:09 Analyzed: 06/15/24 02:32										
Antimony, total	0.0787		mg/L	0.0800	0.0004	97.9	80-120			
Arsenic, total	0.0847		mg/L	0.0800	0.0051	99.5	80-120			
Barium, total	0.0967		mg/L	0.0800	0.0171	99.5	80-120			
Beryllium, total	0.0731		mg/L	0.0800	0.00007	91.4	80-120			
Cadmium, total	0.0731		mg/L	0.0800	0.0003	91.1	80-120			



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HF0864

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HF0720 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Post Spike (1HF0720-PS1)</b>										
		<b>Source: 1HF0855-01</b>		Prepared: 06/13/24 16:09 Analyzed: 06/15/24 02:32						
Chromium, total	0.0733		mg/L	0.0800	0.0004	91.1	80-120			
Cobalt, total	0.0810		mg/L	0.0800	0.0013	99.7	80-120			
Copper, total	0.0747		mg/L	0.0800	0.0022	90.7	80-120			
Lead, total	0.0751		mg/L	0.0800	0.00008	93.7	80-120			
Nickel, total	0.0803		mg/L	0.0800	0.0042	95.1	80-120			
Selenium, total	0.0767		mg/L	0.0800	0.0007	94.9	80-120			
Silver, total	0.0766		mg/L	0.0800	0.0003	95.4	80-120			
Thallium, total	0.0762		mg/L	0.0800	0.0002	95.1	80-120			
Vanadium, total	0.0839		mg/L	0.0800	0.0056	97.9	80-120			
Zinc, total	0.0796		mg/L	0.0800	0.0105	86.3	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

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Heather Murphy  
 Customer Relationship Specialist  
 heather.murphy@microbac.com  
 06/18/24 14:56



HLW Engineering  
 PM: Heather Murphy

PRINT OR TYPE INFORMATION BELOW

SAMPLER: TODD WHIPPLE  
 SITE NAME: SCILA  
 ADDRESS: \_\_\_\_\_  
 CITY/ST/ZIP: Winterset Iowa  
 PHONE: \_\_\_\_\_

REPORT TO:  
 NAME: TODD WHIPPLE  
 COMPANY NAME: HLW Group  
 ADDRESS: P.O Box 314  
 CITY/ST/ZIP: SPRY City, IA 50248  
 PHONE: (515) 733 4144  
 FAX: 4146

BILL TO:  
 NAME: Marcia Beeler, Mgr  
 COMPANY NAME: SCILA  
 ADDRESS: 2520 State Hwy 92  
 CITY/ST/ZIP: Winterset, Ia 50273  
 PHONE: \_\_\_\_\_  
 Keystone Quote No: \_\_\_\_\_  
 (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED										LAB USE ONLY			
																	LABORATORY WORK ORDER NO.	LABORATORY SAMPLE NUMBER		
MW 45A	6/3/24	10:28	MW 45A	1	W	G	Appendix I metals												1HF0864	01
MW 45D	↑	10:36	MW 45D	1	W	G	Appendix I metals													02
GU-2	↑	10:41	GU-2	1	W	G	Appendix I metals													03
GU-A	↓	10:18	GU-A	1	W	G	Appendix I metals													04
GU-B	6/3/24	10:23	GU-B	1	W	G	Appendix I metals													05

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>6/5/24</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>6-5-24</u>	Turn-Around: <input type="checkbox"/> Standard <input type="checkbox"/> Rush
Relinquished by: (Signature)	Date	Received for Lab by: (Signature) <u>[Signature]</u>	Date <u>6-5-24</u>	Remarks:
	Time		Time <u>9:42</u>	







Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Project Description

6022

For:

Todd Whipple

**HLW Engineering**

204 West Broad St

Story City, IA 50248

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Heather Murphy

Customer Relationship Specialist

Thursday, October 3, 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 Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | [www.microbac.com](http://www.microbac.com)



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

HLW Engineering

Project Name: 6022

Todd Whipple  
204 West Broad St  
Story City, IA 50248

Project / PO Number: N/A  
Received: 09/19/2024  
Reported: 10/03/2024

Sample Summary Report

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-18	1HI1410-01	Aqueous	GRAB		09/18/24 11:55	09/19/24 10:30
MW-6A	1HI1410-02	Aqueous	GRAB		09/18/24 17:06	09/19/24 10:30
MW-21	1HI1410-03	Aqueous	GRAB		09/18/24 15:53	09/19/24 10:30
TILE-1	1HI1410-04	Aqueous	GRAB		09/18/24 13:34	09/19/24 10:30
TILE 2	1HI1410-05	Aqueous	GRAB		09/18/24 12:37	09/19/24 10:30
MW-11C	1HI1410-06	Aqueous	GRAB		09/18/24 10:04	09/19/24 10:30
MW-39D	1HI1410-07	Aqueous	GRAB		09/18/24 08:05	09/19/24 10:30
MW-41D	1HI1410-08	Aqueous	GRAB		09/18/24 08:25	09/19/24 10:30
MW-42D	1HI1410-09	Aqueous	GRAB		09/18/24 08:45	09/19/24 10:30
MW-17R	1HI1410-10	Aqueous	GRAB		09/18/24 16:41	09/19/24 10:30
MW-28	1HI1410-11	Aqueous	GRAB		09/18/24 14:48	09/19/24 10:30
MW-8B	1HI1410-12	Aqueous	GRAB		09/18/24 16:14	09/19/24 10:30
MW-9AR	1HI1410-13	Aqueous	GRAB		09/18/24 13:49	09/19/24 10:30
MW-14D	1HI1410-14	Aqueous	GRAB		09/18/24 12:47	09/19/24 10:30
MW-15R	1HI1410-15	Aqueous	GRAB		09/18/24 14:26	09/19/24 10:30
SW-2B	1HI1410-16	Aqueous	GRAB		09/19/24 00:00	09/19/24 10:30
SW-102	1HI1410-17	Aqueous	GRAB		09/18/24 15:12	09/19/24 10:30
Duplicate	1HI1410-18	Aqueous	GRAB		09/18/24 15:00	09/19/24 10:30
GU-2	1HI1410-19	Aqueous	GRAB		09/18/24 00:00	09/19/24 10:30
GU-A	1HI1410-20	Aqueous	GRAB		09/18/24 09:48	09/19/24 10:30
GU-B	1HI1410-21	Aqueous	GRAB		09/18/24 09:25	09/19/24 10:30
MW-44	1HI1410-22	Aqueous	GRAB		09/18/24 14:10	09/19/24 10:30
MW-45A	1HI1410-23	Aqueous	GRAB		09/18/24 09:03	09/19/24 10:30
MW-45D	1HI1410-24	Aqueous	GRAB		09/18/24 09:13	09/19/24 10:30
MW-31	1HI1410-25	Aqueous	GRAB		09/18/24 13:17	09/19/24 10:30



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Analytical Testing Parameters

Client Sample ID:	MW-18	Collected By:	WHIPPLE, TODD
Sample Matrix:	Aqueous	Collection Date:	09/18/2024 11:55
Lab Sample ID:	1HI1410-01		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	0.0024	0.0020	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Arsenic, total	0.0048	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Barium, total	0.477	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Cadmium, total	0.0025	0.0008	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Cobalt, total	0.0023	0.0004	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Copper, total	0.0047	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Nickel, total	0.0336	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Selenium, total	0.0089	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1822	RVV
Zinc, total	0.0735	0.0200	mg/L	4		09/20/24 1123	09/24/24 1822	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b> MW-6A	<b>Collected By:</b> WHIPPLE, TODD
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 09/18/2024 17:06
<b>Lab Sample ID:</b> 1HI1410-02	

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1648	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Benzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Chlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-6A	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 17:06
<b>Lab Sample ID:</b>	1HI1410-02		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0253	CSM
Surrogate: Dibromofluoromethane	108	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0253	CSM
Surrogate: Dibromofluoromethane	80.0	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1648	BDF
Surrogate: 1,2-Dichloroethane-d4	111	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0253	CSM
Surrogate: 1,2-Dichloroethane-d4	86.2	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1648	BDF
Surrogate: Toluene-d8	99.4	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0253	CSM
Surrogate: Toluene-d8	88.4	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1648	BDF
Surrogate: 4-Bromofluorobenzene	96.7	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0253	CSM
Surrogate: 4-Bromofluorobenzene	99.1	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1648	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Barium, total	<b>0.0802</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Cobalt, total	<b>0.0049</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Nickel, total	<b>0.0226</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1846	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1846	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b> MW-21	<b>Collected By:</b> WHIPPLE, TODD
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 09/18/2024 15:53
<b>Lab Sample ID:</b> 1HI1410-03	

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1531	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Benzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Chlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-21	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 15:53
<b>Lab Sample ID:</b>	1HI1410-03		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0316	CSM
Surrogate: Dibromofluoromethane	86.8	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1531	BDF
Surrogate: Dibromofluoromethane	107	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0316	CSM
Surrogate: 1,2-Dichloroethane-d4	81.2	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1531	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0316	CSM
Surrogate: Toluene-d8	102	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1531	BDF
Surrogate: Toluene-d8	99.2	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0316	CSM
Surrogate: 4-Bromofluorobenzene	96.5	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0316	CSM
Surrogate: 4-Bromofluorobenzene	81.7	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1531	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Barium, total	<b>0.146</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1852	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1852	RVV

Microbac Laboratories, Inc., Newton

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | www.microbac.com





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b> TILE-1	<b>Collected By:</b> WHIPPLE, TODD
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 09/18/2024 13:34
<b>Lab Sample ID:</b> 1HI1410-04	

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1553	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Benzene	1.8	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Chlorobenzene	4.3	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	TILE-1	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 13:34
<b>Lab Sample ID:</b>	1HI1410-04		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,4-Dichlorobenzene	<b>3.3</b>	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0338	CSM
Surrogate: Dibromofluoromethane	89.6	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1553	BDF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0338	CSM
Surrogate: 1,2-Dichloroethane-d4	90.9	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1553	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0338	CSM
Surrogate: Toluene-d8	101	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1553	BDF
Surrogate: Toluene-d8	98.9	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0338	CSM
Surrogate: 4-Bromofluorobenzene	86.8	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1553	BDF
Surrogate: 4-Bromofluorobenzene	97.7	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0338	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Arsenic, total	<b>0.0088</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Barium, total	<b>2.34</b>	0.100	mg/L	100		09/20/24 1123	09/25/24 1105	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Cobalt, total	<b>0.0032</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Nickel, total	<b>0.0435</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1858	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1858	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b> TILE 2		<b>Collected By:</b> WHIPPLE, TODD
<b>Sample Matrix:</b> Aqueous		<b>Collection Date:</b> 09/18/2024 12:37
<b>Lab Sample ID:</b> 1HI1410-05		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Vinyl Chloride	2.7	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1616	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
cis-1,2-Dichloroethylene	2.1	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Benzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Chlorobenzene	1.1	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	TILE 2	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 12:37
<b>Lab Sample ID:</b>	1HI1410-05		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0401	CSM
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0401	CSM
Surrogate: Dibromofluoromethane	89.0	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1616	BDF
Surrogate: 1,2-Dichloroethane-d4	84.4	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1616	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0401	CSM
Surrogate: Toluene-d8	99.1	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0401	CSM
Surrogate: Toluene-d8	104	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1616	BDF
Surrogate: 4-Bromofluorobenzene	79.1	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1616	BDF
Surrogate: 4-Bromofluorobenzene	96.4	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0401	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Barium, total	<b>0.638</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Cobalt, total	<b>0.0018</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Nickel, total	<b>0.0082</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1905	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1905	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-11C	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 10:04
<b>Lab Sample ID:</b>	1HI1410-06		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1638	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Benzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Chlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-11C	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 10:04
<b>Lab Sample ID:</b>	1HI1410-06		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0424	CSM
Surrogate: Dibromofluoromethane	87.9	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1638	BDF
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0424	CSM
Surrogate: 1,2-Dichloroethane-d4	84.5	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1638	BDF
Surrogate: 1,2-Dichloroethane-d4	111	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0424	CSM
Surrogate: Toluene-d8	106	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1638	BDF
Surrogate: Toluene-d8	99.7	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0424	CSM
Surrogate: 4-Bromofluorobenzene	79.7	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1638	BDF
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0424	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Barium, total	<b>0.0884</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1911	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1911	RVV

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1HI1410

<b>Client Sample ID:</b>	MW-39D	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 8:05
<b>Lab Sample ID:</b>	1HI1410-07		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Barium, total	<b>0.0261</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1917	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1917	RVV

<b>Client Sample ID:</b>	MW-41D	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 8:25
<b>Lab Sample ID:</b>	1HI1410-08		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Barium, total	<b>0.0337</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Cobalt, total	<b>0.0010</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Nickel, total	<b>0.0052</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1935	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1935	RVV



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1HI1410

<b>Client Sample ID:</b>	MW-42D	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 8:45
<b>Lab Sample ID:</b>	1HI1410-09		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Barium, total	<b>0.0306</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1941	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1941	RVV





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CERTIFICATE OF ANALYSIS

1HI1410

Client Sample ID: MW-17R
Sample Matrix: Aqueous
Lab Sample ID: 1HI1410-10

Collected By: WHIPPLE, TODD
Collection Date: 09/18/2024 16:41

Analyses Performed by: Microbac Laboratories, Inc., Newton

Table with columns: Determination of Volatile Organic Compounds, Result, RL, Units, DF, Note, Prepared, Analyzed, Analyst. Rows include EPA 5030B/EPA 8260B and various chemical compounds like Chloromethane, Vinyl Chloride, etc.



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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-17R	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 16:41
<b>Lab Sample ID:</b>	1HI1410-10		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0446	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0446	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0446	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0446	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0446	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0446	CSM
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0446	CSM
Surrogate: Dibromofluoromethane	87.7	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1701	BDF
Surrogate: 1,2-Dichloroethane-d4	81.1	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1701	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0446	CSM
Surrogate: Toluene-d8	98.6	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0446	CSM
Surrogate: Toluene-d8	109	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1701	BDF
Surrogate: 4-Bromofluorobenzene	97.0	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0446	CSM
Surrogate: 4-Bromofluorobenzene	83.6	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1701	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Barium, total	<b>0.435</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Cobalt, total	<b>0.0041</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Nickel, total	<b>0.0242</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1947	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1947	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

Client Sample ID: MW-28
Sample Matrix: Aqueous
Lab Sample ID: 1HI1410-11

Collected By: WHIPPLE, TODD
Collection Date: 09/18/2024 14:48

Analyses Performed by: Microbac Laboratories, Inc., Newton

Table with columns: Determination of Volatile Organic Compounds, Result, RL, Units, DF, Note, Prepared, Analyzed, Analyst. Rows include EPA 5030B/EPA 8260B compounds like Chloromethane, Vinyl Chloride, Bromomethane, etc.



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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-28	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 14:48
<b>Lab Sample ID:</b>	1HI1410-11		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0509	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0509	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0509	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0509	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0509	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0509	CSM
Surrogate: Dibromofluoromethane	83.5	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1723	BDF
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0509	CSM
Surrogate: 1,2-Dichloroethane-d4	79.3	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1723	BDF
Surrogate: 1,2-Dichloroethane-d4	109	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0509	CSM
Surrogate: Toluene-d8	98.5	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0509	CSM
Surrogate: Toluene-d8	110	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1723	BDF
Surrogate: 4-Bromofluorobenzene	81.1	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1723	BDF
Surrogate: 4-Bromofluorobenzene	95.9	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0509	CSM

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Arsenic, total	<b>0.0040</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Barium, total	<b>0.652</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Cobalt, total	<b>0.0234</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Nickel, total	<b>0.0152</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1954	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 1954	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b> MW-8B	<b>Collected By:</b> WHIPPLE, TODD
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 09/18/2024 16:14
<b>Lab Sample ID:</b> 1HI1410-12	

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

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA RSK-175</b>								
								<b>Method Notes: A8</b>
Methane	70.8	5.00	ug/L	1		09/26/24 1039	09/26/24 1306	KJB
Ethene	<5.00	5.00	ug/L	1		09/26/24 1039	09/26/24 1306	KJB
Ethane	<5.00	5.00	ug/L	1		09/26/24 1039	09/26/24 1306	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1746	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Benzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-8B	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 16:14
<b>Lab Sample ID:</b>	1HI1410-12		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Chlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0532	CSM
Surrogate: Dibromofluoromethane	82.9	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1746	BDF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0532	CSM
Surrogate: 1,2-Dichloroethane-d4	77.4	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1746	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0532	CSM
Surrogate: Toluene-d8	108	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1746	BDF
Surrogate: Toluene-d8	98.1	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0532	CSM
Surrogate: 4-Bromofluorobenzene	80.2	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1746	BDF
Surrogate: 4-Bromofluorobenzene	96.4	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0532	CSM

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	728	50	mg/L	1			09/23/24 1040	BSS
<b>SM 4500 H+ B</b>								
pH	6.6	0.5	pH	1	H4		09/24/24 1139	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Arsenic, total	0.0175	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Barium, total	1.08	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Cobalt, total	0.0118	0.0004	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Nickel, total	0.0080	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-8B	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 16:14
<b>Lab Sample ID:</b>	1HI1410-12		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2000	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2000	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-9AR	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 13:49
<b>Lab Sample ID:</b>	1HI1410-13		

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

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA RSK-175</b>								
								<b>Method Notes: A8</b>
Methane	659	5.00	ug/L	1		09/26/24 1039	09/26/24 1320	KJB
Ethene	<5.00	5.00	ug/L	1		09/26/24 1039	09/26/24 1320	KJB
Ethane	<5.00	5.00	ug/L	1		09/26/24 1039	09/26/24 1320	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Vinyl Chloride	28.2	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1808	BDF
trans-1,2-Dichloroethylene	4.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
cis-1,2-Dichloroethylene	43.6	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Benzene	1.5	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Trichloroethylene	2.1	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-9AR	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 13:49
<b>Lab Sample ID:</b>	1HI1410-13		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Chlorobenzene	<b>4.3</b>	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0554	CSM
Surrogate: Dibromofluoromethane	81.4	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1808	BDF
Surrogate: Dibromofluoromethane	104	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0554	CSM
Surrogate: 1,2-Dichloroethane-d4	76.5	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1808	BDF
Surrogate: 1,2-Dichloroethane-d4	107	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0554	CSM
Surrogate: Toluene-d8	105	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1808	BDF
Surrogate: Toluene-d8	99.1	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0554	CSM
Surrogate: 4-Bromofluorobenzene	80.1	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1808	BDF
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0554	CSM

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	<b>778</b>	50	mg/L	1			09/23/24 1040	BSS
<b>SM 4500 H+ B</b>								
pH	<b>6.7</b>	0.5	pH	1	<b>H4</b>		09/24/24 1139	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Barium, total	<b>0.444</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Cadmium, total	<b>0.0027</b>	0.0008	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Cobalt, total	<b>0.0034</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Nickel, total	<b>0.0167</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-9AR	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 13:49
<b>Lab Sample ID:</b>	1HI1410-13		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2006	RVV
Zinc, total	<b>0.0352</b>	0.0200	mg/L	4		09/20/24 1123	09/24/24 2006	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Client Sample ID: MW-14D
Sample Matrix: Aqueous
Lab Sample ID: 1HI1410-14

Collected By: WHIPPLE, TODD
Collection Date: 09/18/2024 12:47

Analyses Performed by: Microbac Laboratories, Inc., Newton

Table with columns: Determination of Volatile Organic Compounds, Result, RL, Units, DF, Note, Prepared, Analyzed, Analyst. Rows include EPA 5030B/EPA 8260B and various chemical compounds like Chloromethane, Vinyl Chloride, etc.



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-14D	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 12:47
<b>Lab Sample ID:</b>	1HI1410-14		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0617	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0617	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0617	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0617	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0617	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0617	CSM
Surrogate: Dibromofluoromethane	83.3	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1830	BDF
Surrogate: Dibromofluoromethane	107	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0617	CSM
Surrogate: 1,2-Dichloroethane-d4	81.2	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1830	BDF
Surrogate: 1,2-Dichloroethane-d4	109	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0617	CSM
Surrogate: Toluene-d8	105	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1830	BDF
Surrogate: Toluene-d8	99.4	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0617	CSM
Surrogate: 4-Bromofluorobenzene	80.1	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1830	BDF
Surrogate: 4-Bromofluorobenzene	97.2	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0617	CSM

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 8270C</b>								
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L	1		09/25/24 0941	09/30/24 1918	EPP
Surrogate: Nitrobenzene-d5	60.1	Limit: 20-149	% Rec	1		09/25/24 0941	09/30/24 1918	EPP
Surrogate: 2-Fluorobiphenyl	66.2	Limit: 11-146	% Rec	1		09/25/24 0941	09/30/24 1918	EPP
Surrogate: Terphenyl-dl4	45.7	Limit: 27-155	% Rec	1		09/25/24 0941	09/30/24 1918	EPP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Barium, total	<b>0.0226</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Cobalt, total	<b>0.0015</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2012	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2012	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-15R	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 14:26
<b>Lab Sample ID:</b>	1HI1410-15		

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

Volatile Organic Compounds by GCMS	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA RSK-175</b>								
Methane	14000	250	ug/L	50	D3	09/30/24 1040	09/30/24 1420	KJB
Ethene	<5.00	5.00	ug/L	1		09/26/24 1039	09/26/24 1333	KJB
Ethane	<5.00	5.00	ug/L	1		09/26/24 1039	09/26/24 1333	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Bromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Chloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Acetone	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Methyl Iodide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Carbon Disulfide	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1853	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Vinyl Acetate	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Bromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Chloroform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Benzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Dibromomethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Toluene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-15R	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 14:26
<b>Lab Sample ID:</b>	1HI1410-15		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Chlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Xylenes, total	<2.0	2.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Styrene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Bromoform	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0640	CSM
Surrogate: Dibromofluoromethane	76.7	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1853	BDF
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0640	CSM
Surrogate: 1,2-Dichloroethane-d4	74.1	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1853	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0640	CSM
Surrogate: Toluene-d8	110	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1853	BDF
Surrogate: Toluene-d8	98.8	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0640	CSM
Surrogate: 4-Bromofluorobenzene	82.8	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1853	BDF
Surrogate: 4-Bromofluorobenzene	96.3	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0640	CSM

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	696	50	mg/L	1			09/23/24 1040	BSS
<b>SM 4500 H+ B</b>								
pH	6.7	0.5	pH	1	H4		09/24/24 1139	BSS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Arsenic, total	0.0704	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Barium, total	0.686	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Cobalt, total	0.0009	0.0004	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-15R	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 14:26
<b>Lab Sample ID:</b>	1HI1410-15		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2018	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2018	RVV



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Client Sample ID: SW-2B
Sample Matrix: Aqueous
Lab Sample ID: 1HI1410-16

Collected By:
Collection Date: 09/19/2024

Analyses Performed by: Microbac Laboratories, Inc., Newton

Table with columns: Determination of Volatile Organic Compounds, Result, RL, Units, DF, Note, Prepared, Analyzed, Analyst. Rows include EPA 5030B/EPA 8260B and various chemical compounds like Chloromethane, Vinyl Chloride, etc.





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	SW-2B	<b>Collected By:</b>	_____
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/19/2024
<b>Lab Sample ID:</b>	1HI1410-16		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0702	CSM
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0702	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0702	CSM
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0702	CSM
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/26/24 0000	09/27/24 0702	CSM
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/26/24 0000	09/27/24 0702	CSM
Surrogate: Dibromofluoromethane	76.0	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1915	BDF
Surrogate: Dibromofluoromethane	107	Limit: 75-136	% Rec	1		09/26/24 0000	09/27/24 0702	CSM
Surrogate: 1,2-Dichloroethane-d4	73.8	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1915	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/26/24 0000	09/27/24 0702	CSM
Surrogate: Toluene-d8	108	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1915	BDF
Surrogate: Toluene-d8	98.9	Limit: 82-121	% Rec	1		09/26/24 0000	09/27/24 0702	CSM
Surrogate: 4-Bromofluorobenzene	81.6	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1915	BDF
Surrogate: 4-Bromofluorobenzene	96.7	Limit: 80-116	% Rec	1		09/26/24 0000	09/27/24 0702	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Client Sample ID: SW-102
Sample Matrix: Aqueous
Lab Sample ID: 1HI1410-17

Collected By:
Collection Date: 09/18/2024 15:12

Analyses Performed by: Microbac Laboratories, Inc., Newton

Table with columns: Determination of Volatile Organic Compounds, Result, RL, Units, DF, Note, Prepared, Analyzed, Analyst. Rows include EPA 5030B/EPA 8260B and various chemical compounds like Chloromethane, Vinyl Chloride, etc.



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	SW-102	<b>Collected By:</b>	
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 15:12
<b>Lab Sample ID:</b>	1HI1410-17		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2046	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2046	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2046	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2046	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2046	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2046	BDF
Surrogate: Dibromofluoromethane	103	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2046	BDF
Surrogate: Dibromofluoromethane	71.2	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1937	BDF
Surrogate: 1,2-Dichloroethane-d4	71.1	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1937	BDF
Surrogate: 1,2-Dichloroethane-d4	109	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2046	BDF
Surrogate: Toluene-d8	99.8	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2046	BDF
Surrogate: Toluene-d8	108	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1937	BDF
Surrogate: 4-Bromofluorobenzene	103	Limit: 80-116	% Rec	1		09/30/24 0000	09/30/24 2046	BDF
Surrogate: 4-Bromofluorobenzene	79.4	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1937	BDF

<b>Client Sample ID:</b>	Duplicate	<b>Collected By:</b>	
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 15:00
<b>Lab Sample ID:</b>	1HI1410-18		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Barium, total	<b>0.0333</b>	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Cobalt, total	<b>0.0009</b>	0.0004	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Nickel, total	<b>0.0050</b>	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1130	09/24/24 2119	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1130	09/24/24 2119	RVV

Microbac Laboratories, Inc., Newton

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | www.microbac.com



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	GU-2	<b>Collected By:</b>	
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024
<b>Lab Sample ID:</b>	1HI1410-19		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Bromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Chloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Acetone	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Methylene Chloride	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 2000	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Chloroform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Benzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Dibromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Toluene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Xylenes, total	<2.0	2.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Styrene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Bromoform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	GU-2	<b>Collected By:</b>	
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024
<b>Lab Sample ID:</b>	1HI1410-19		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2109	BDF
Surrogate: Dibromofluoromethane	103	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2109	BDF
Surrogate: Dibromofluoromethane	74.9	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 2000	BDF
Surrogate: 1,2-Dichloroethane-d4	72.1	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 2000	BDF
Surrogate: 1,2-Dichloroethane-d4	108	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2109	BDF
Surrogate: Toluene-d8	113	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2109	BDF
Surrogate: Toluene-d8	102	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 2000	BDF
Surrogate: 4-Bromofluorobenzene	85.1	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 2000	BDF
Surrogate: 4-Bromofluorobenzene	109	Limit: 80-116	% Rec	1		09/30/24 0000	09/30/24 2109	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Barium, total	<b>0.230</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Copper, total	<b>0.0040</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Nickel, total	<b>0.0206</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2024	RVV
Zinc, total	<b>0.320</b>	0.0200	mg/L	4		09/20/24 1123	09/24/24 2024	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	GU-A	<b>Collected By:</b>	
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:48
<b>Lab Sample ID:</b>	1HI1410-20		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Bromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Chloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Acetone	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Methylene Chloride	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 2022	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Chloroform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Benzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Dibromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Toluene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Xylenes, total	<2.0	2.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Styrene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Bromoform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	GU-A	<b>Collected By:</b>	
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:48
<b>Lab Sample ID:</b>	1HI1410-20		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2131	BDF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2131	BDF
Surrogate: Dibromofluoromethane	71.7	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 2022	BDF
Surrogate: 1,2-Dichloroethane-d4	69.6	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 2022	BDF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2131	BDF
Surrogate: Toluene-d8	112	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 2022	BDF
Surrogate: Toluene-d8	99.6	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2131	BDF
Surrogate: 4-Bromofluorobenzene	92.6	Limit: 80-116	% Rec	1		09/30/24 0000	09/30/24 2131	BDF
Surrogate: 4-Bromofluorobenzene	82.9	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 2022	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<b>0.0027</b>	0.0020	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Barium, total	<b>0.0448</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Cobalt, total	<b>0.0035</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Nickel, total	<b>0.0775</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2030	RVV
Zinc, total	<b>0.739</b>	0.0200	mg/L	4		09/20/24 1123	09/24/24 2030	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	GU-B	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:25
<b>Lab Sample ID:</b>	1HI1410-21		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Bromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Chloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Acetone	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Methylene Chloride	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 2045	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Chloroform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Benzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Dibromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Toluene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Xylenes, total	<2.0	2.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Styrene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Bromoform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	GU-B	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:25
<b>Lab Sample ID:</b>	1HI1410-21		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1	<b>M1</b>	09/30/24 0000	09/30/24 2154	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2154	BDF
Surrogate: Dibromofluoromethane	71.6	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 2045	BDF
Surrogate: Dibromofluoromethane	104	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2154	BDF
Surrogate: 1,2-Dichloroethane-d4	71.5	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 2045	BDF
Surrogate: 1,2-Dichloroethane-d4	109	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2154	BDF
Surrogate: Toluene-d8	107	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 2045	BDF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2154	BDF
Surrogate: 4-Bromofluorobenzene	81.6	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 2045	BDF
Surrogate: 4-Bromofluorobenzene	103	Limit: 80-116	% Rec	1		09/30/24 0000	09/30/24 2154	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Barium, total	<b>0.277</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Cadmium, total	<b>0.0012</b>	0.0008	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Cobalt, total	<b>0.0102</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Nickel, total	<b>0.0333</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Selenium, total	<b>0.0083</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2049	RVV
Zinc, total	<b>0.0652</b>	0.0200	mg/L	4		09/20/24 1123	09/24/24 2049	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

Client Sample ID: MW-44
Sample Matrix: Aqueous
Lab Sample ID: 1HI1410-22

Collected By: WHIPPLE, TODD
Collection Date: 09/18/2024 14:10

Analyses Performed by: Microbac Laboratories, Inc., Newton

Table with columns: Determination of Volatile Organic Compounds, Result, RL, Units, DF, Note, Prepared, Analyzed, Analyst. Rows include EPA 5030B/EPA 8260B and various chemical compounds like Chloromethane, Vinyl Chloride, etc.



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-44	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 14:10
<b>Lab Sample ID:</b>	1HI1410-22		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2216	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2216	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2216	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2216	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2216	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2216	BDF
Surrogate: Dibromofluoromethane	79.4	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1710	BDF
Surrogate: Dibromofluoromethane	103	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2216	BDF
Surrogate: 1,2-Dichloroethane-d4	85.7	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1710	BDF
Surrogate: 1,2-Dichloroethane-d4	108	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2216	BDF
Surrogate: Toluene-d8	88.8	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1710	BDF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2216	BDF
Surrogate: 4-Bromofluorobenzene	98.7	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1710	BDF
Surrogate: 4-Bromofluorobenzene	122	Limit: 80-116	% Rec	1	S1	09/30/24 0000	09/30/24 2216	BDF

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 8270C</b>								
Bis(2-Ethylhexyl) Phthalate	10	6	ug/L	1		09/25/24 0941	09/30/24 1943	EPP
Surrogate: Nitrobenzene-d5	59.2	Limit: 20-149	% Rec	1		09/25/24 0941	09/30/24 1943	EPP
Surrogate: 2-Fluorobiphenyl	77.5	Limit: 11-146	% Rec	1		09/25/24 0941	09/30/24 1943	EPP
Surrogate: Terphenyl-dl4	79.7	Limit: 27-155	% Rec	1		09/25/24 0941	09/30/24 1943	EPP

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Barium, total	0.662	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Cobalt, total	0.0005	0.0004	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2055	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2055	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-45A	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:03
<b>Lab Sample ID:</b>	1HI1410-23		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Bromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Chloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Acetone	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Methylene Chloride	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1733	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Chloroform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Benzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Dibromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Toluene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Xylenes, total	<2.0	2.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Styrene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Bromoform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF



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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-45A	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:03
<b>Lab Sample ID:</b>	1HI1410-23		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2239	BDF
Surrogate: Dibromofluoromethane	114	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2239	BDF
Surrogate: Dibromofluoromethane	79.5	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1733	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2239	BDF
Surrogate: 1,2-Dichloroethane-d4	85.5	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1733	BDF
Surrogate: Toluene-d8	99.9	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2239	BDF
Surrogate: Toluene-d8	89.8	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1733	BDF
Surrogate: 4-Bromofluorobenzene	103	Limit: 80-116	% Rec	1		09/30/24 0000	09/30/24 2239	BDF
Surrogate: 4-Bromofluorobenzene	98.5	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1733	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Barium, total	<b>0.0989</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Cobalt, total	<b>0.0070</b>	0.0004	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Nickel, total	<b>0.0045</b>	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2101	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1123	09/24/24 2101	RVV



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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-45D	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:13
<b>Lab Sample ID:</b>	1HI1410-24		

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Bromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Chloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Acetone	<b>38.2</b>	10.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Methylene Chloride	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1756	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Chloroform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Benzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Dibromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Toluene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Xylenes, total	<2.0	2.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Styrene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Bromoform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-45D	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 9:13
<b>Lab Sample ID:</b>	1HI1410-24		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2301	BDF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2301	BDF
Surrogate: Dibromofluoromethane	79.6	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1756	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2301	BDF
Surrogate: 1,2-Dichloroethane-d4	86.2	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1756	BDF
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2301	BDF
Surrogate: Toluene-d8	89.9	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1756	BDF
Surrogate: 4-Bromofluorobenzene	102	Limit: 80-116	% Rec	1		09/30/24 0000	09/30/24 2301	BDF
Surrogate: 4-Bromofluorobenzene	99.3	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1756	BDF

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3005A/EPA 6020A</b>								
Antimony, total	<0.0020	0.0020	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Arsenic, total	<b>0.0097</b>	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Barium, total	<b>0.0831</b>	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Cobalt, total	<b>0.0008</b>	0.0004	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Copper, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Lead, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Silver, total	<0.0040	0.0040	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		09/20/24 1130	09/24/24 2125	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		09/20/24 1130	09/24/24 2125	RVV

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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b> MW-31	<b>Collected By:</b> WHIPPLE, TODD
<b>Sample Matrix:</b> Aqueous	<b>Collection Date:</b> 09/18/2024 13:17
<b>Lab Sample ID:</b> 1HI1410-25	

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260B</b>								
Chloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Vinyl Chloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Bromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Chloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Trichlorofluoromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Acetone	<b>40.5</b>	10.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Methyl Iodide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Carbon Disulfide	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Methylene Chloride	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Acrylonitrile	<5.0	5.0	ug/L	1		09/24/24 0000	09/24/24 1818	BDF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,1-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Vinyl Acetate	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
2-Butanone (MEK)	<10.0	10.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Bromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Chloroform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Carbon Tetrachloride	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Benzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,2-Dichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Trichloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,2-Dichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Dibromomethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Bromodichloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Toluene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Tetrachloroethylene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Dibromochloromethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,2-Dibromoethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Chlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Ethylbenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Xylenes, total	<2.0	2.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Styrene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Bromoform	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF





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CERTIFICATE OF ANALYSIS

1HI1410

<b>Client Sample ID:</b>	MW-31	<b>Collected By:</b>	WHIPPLE, TODD
<b>Sample Matrix:</b>	Aqueous	<b>Collection Date:</b>	09/18/2024 13:17
<b>Lab Sample ID:</b>	1HI1410-25		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,4-Dichlorobenzene	1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		09/30/24 0000	09/30/24 2324	BDF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec	1		09/30/24 0000	09/30/24 2324	BDF
Surrogate: Dibromofluoromethane	79.8	Limit: 57-134	% Rec	1		09/24/24 0000	09/24/24 1818	BDF
Surrogate: 1,2-Dichloroethane-d4	110	Limit: 61-142	% Rec	1		09/30/24 0000	09/30/24 2324	BDF
Surrogate: 1,2-Dichloroethane-d4	86.4	Limit: 53-140	% Rec	1		09/24/24 0000	09/24/24 1818	BDF
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		09/30/24 0000	09/30/24 2324	BDF
Surrogate: Toluene-d8	89.6	Limit: 86-114	% Rec	1		09/24/24 0000	09/24/24 1818	BDF
Surrogate: 4-Bromofluorobenzene	103	Limit: 80-116	% Rec	1		09/30/24 0000	09/30/24 2324	BDF
Surrogate: 4-Bromofluorobenzene	99.2	Limit: 78-121	% Rec	1		09/24/24 0000	09/24/24 1818	BDF



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CERTIFICATE OF ANALYSIS

1HI1410

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HI1117	1HI1117-BLK1	
		1HI1117-BS1	
		1HI1410-01	MW-18
		1HI1117-MS1	1HI1410-01
		1HI1117-MSD1	1HI1410-01
		1HI1117-PS1	1HI1410-01
		1HI1410-02	MW-6A
		1HI1410-03	MW-21
		1HI1410-04	TILE-1
		1HI1410-05	TILE 2
		1HI1410-06	MW-11C
		1HI1410-07	MW-39D
		1HI1410-08	MW-41D
		1HI1410-09	MW-42D
		1HI1410-10	MW-17R
		1HI1410-11	MW-28
		1HI1410-12	MW-8B
		1HI1410-13	MW-9AR
		1HI1410-14	MW-14D
		1HI1410-15	MW-15R
		1HI1410-19	GU-2
		1HI1410-20	GU-A
		1HI1410-21	GU-B
1HI1410-22	MW-44		
1HI1410-23	MW-45A		
1HI1410-04RE1	TILE-1		

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HI1119	1HI1119-BLK1	
		1HI1119-BS1	
		1HI1410-18	Duplicate
		1HI1410-24	MW-45D
		1HI1119-MS1	1HI1410-24
		1HI1119-MSD1	1HI1410-24
		1HI1119-PS1	1HI1410-24

Method	Batch	Laboratory ID	Client / Source ID
2320B	1HI1182	1HI1182-BLK1	
		1HI1410-12	MW-8B
		1HI1410-13	MW-9AR



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CERTIFICATE OF ANALYSIS

1HI1410

2320B	1HI1182	1HI1410-15	MW-15R
		1HI1182-MSD1	1HI1245-04
		1HI1182-BS1	
		1HI1182-MS1	1HI1245-04

Method	Batch	Laboratory ID	Client / Source ID
SM 4500 H+ B	1HI1265	1HI1410-12	MW-8B
		1HI1265-DUP1	1HI1284-01
		1HI1410-15	MW-15R
		1HI1265-SRM1	
		1HI1265-SRM2	
		1HI1410-13	MW-9AR

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HI1321	1HI1321-BS1	
		1HI1321-MS1	1HI1410-02
		1HI1321-MSD1	1HI1410-02
		1HI1321-BLK1	
		1HI1410-02	MW-6A
		1HI1410-22	MW-44
		1HI1410-23	MW-45A
		1HI1410-24	MW-45D
		1HI1410-25	MW-31

Method	Batch	Laboratory ID	Client / Source ID	
EPA 8260B	1HI1323	1HI1323-BS1		
		1HI1323-BLK1		
		1HI1410-03	MW-21	
		1HI1410-04	TILE-1	
		1HI1410-05	TILE 2	
		1HI1410-06	MW-11C	
		1HI1410-10	MW-17R	
		1HI1410-11	MW-28	
		1HI1410-12	MW-8B	
		1HI1410-13	MW-9AR	
		1HI1410-14	MW-14D	
		1HI1410-15	MW-15R	
		1HI1410-16	SW-2B	
		1HI1410-17	SW-102	
		1HI1410-19	GU-2	
		1HI1410-20	GU-A	
		1HI1410-21	GU-B	
			1HI1323-MS1	1HI0931-03
			1HI1323-MSD1	1HI0931-03



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CERTIFICATE OF ANALYSIS

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Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1HI1341	1HI1341-BLK1	
		1HI1341-BS1	
		1HI1341-BSD1	
		1HI1410-14	MW-14D
		1HI1410-22	MW-44

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HI1535	1HI1535-BS1	
		1HI1535-BSD1	
		1HI1535-BLK1	
		1HI1410-02	MW-6A
		1HI1410-03	MW-21
		1HI1410-04	TILE-1
		1HI1410-05	TILE 2
		1HI1410-06	MW-11C
		1HI1410-10	MW-17R
		1HI1410-11	MW-28
		1HI1410-12	MW-8B
		1HI1410-13	MW-9AR
		1HI1410-14	MW-14D
		1HI1410-15	MW-15R
		1HI1410-16	SW-2B
	1HI1535-MS1	1HI1410-02	
	1HI1535-MSD1	1HI1410-02	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HJ0018	1HJ0018-BS1	
		1HJ0018-BSD1	
		1HJ0018-BLK1	
		1HI1410-17	SW-102
		1HI1410-19	GU-2
		1HI1410-20	GU-A
		1HI1410-21	GU-B
		1HI1410-22	MW-44
		1HI1410-23	MW-45A
		1HI1410-24	MW-45D
		1HI1410-25	MW-31
			1HJ0018-MS1
	1HJ0018-MSD1	1HI1410-21	

Method	Batch	Laboratory ID	Client / Source ID
EPA RSK-175	B4I1267	B4I1267-BLK1	



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CERTIFICATE OF ANALYSIS

1HI1410

EPA RSK-175	B4I1267	B4I1267-BS1	
		1HI1410-12	MW-8B
		1HI1410-13	MW-9AR
		1HI1410-15	MW-15R

Method	Batch	Laboratory ID	Client / Source ID
EPA RSK-175	B4I1394	B4I1394-BLK1	
		B4I1394-BS1	
		B4I1394-BSD1	
		1HI1410-15RE1	MW-15R

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
<b>Batch 1HI1321 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HI1321-BLK1)</b>										
				Prepared: 09/24/24 00:00 Analyzed: 09/24/24 16:25						
Acrylonitrile	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	40.0		ug/L	50.2		79.6	57-134			
Surrogate: 1,2-Dichloroethane-d4	43.3		ug/L	50.4		86.0	53-140			
Surrogate: Toluene-d8	45.1		ug/L	50.5		89.3	86-114			
Surrogate: 4-Bromofluorobenzene	49.4		ug/L	50.2		98.6	78-121			
<b>LCS (1HI1321-BS1)</b>										
				Prepared: 09/24/24 00:00 Analyzed: 09/24/24 10:02						
Acrylonitrile	56.79	5.0	ug/L	50.2		113	56-135			
Surrogate: Dibromofluoromethane	35.2		ug/L	50.2		70.1	57-134			
Surrogate: 1,2-Dichloroethane-d4	39.8		ug/L	50.4		79.0	53-140			
Surrogate: Toluene-d8	46.4		ug/L	50.5		92.0	86-114			
Surrogate: 4-Bromofluorobenzene	47.2		ug/L	50.2		94.1	78-121			
<b>Matrix Spike (1HI1321-MS1)</b>										
				Prepared: 09/24/24 00:00 Analyzed: 09/24/24 15:18						
Acrylonitrile	155.3	20.0	ug/L	201	ND	77.3	38-147			
Surrogate: Dibromofluoromethane	162		ug/L	201		80.7	57-134			
Surrogate: 1,2-Dichloroethane-d4	181		ug/L	201		90.0	53-140			
Surrogate: Toluene-d8	187		ug/L	202		92.4	86-114			
Surrogate: 4-Bromofluorobenzene	193		ug/L	201		96.1	78-121			
<b>Matrix Spike Dup (1HI1321-MSD1)</b>										
				Prepared: 09/24/24 00:00 Analyzed: 09/24/24 15:40						
Acrylonitrile	156.4	20.0	ug/L	201	ND	77.9	38-147	0.693	30	
Surrogate: Dibromofluoromethane	163		ug/L	201		81.4	57-134			
Surrogate: 1,2-Dichloroethane-d4	183		ug/L	201		91.0	53-140			
Surrogate: Toluene-d8	215		ug/L	202		107	86-114			
Surrogate: 4-Bromofluorobenzene	191		ug/L	201		95.0	78-121			

Batch 1HI1323 - EPA 5030B - EPA 8260B

<b>Blank (1HI1323-BLK1)</b>										
				Prepared: 09/24/24 00:00 Analyzed: 09/24/24 13:09						
Acrylonitrile	<5.0	5.0	ug/L							



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1323 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HI1323-BLK1)</b>										
Prepared: 09/24/24 00:00 Analyzed: 09/24/24 13:09										
Surrogate: Dibromofluoromethane	39.8		ug/L	50.2		79.4	57-134			
Surrogate: 1,2-Dichloroethane-d4	40.0		ug/L	50.4		79.3	53-140			
Surrogate: Toluene-d8	53.3		ug/L	50.5		106	86-114			
Surrogate: 4-Bromofluorobenzene	45.4		ug/L	50.2		90.5	78-121			
<b>LCS (1HI1323-BS1)</b>										
Prepared: 09/24/24 00:00 Analyzed: 09/24/24 10:54										
Acrylonitrile	44.70	5.0	ug/L	50.2		89.0	56-135			
Surrogate: Dibromofluoromethane	53.8		ug/L	50.2		107	57-134			
Surrogate: 1,2-Dichloroethane-d4	57.0		ug/L	50.4		113	53-140			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	86-114			
Surrogate: 4-Bromofluorobenzene	47.0		ug/L	50.2		93.7	78-121			
<b>Matrix Spike (1HI1323-MS1)</b>										
Source: 1HI0931-03 Prepared: 09/24/24 00:00 Analyzed: 09/24/24 21:07										
Acrylonitrile	406.2	50.0	ug/L	502	ND	80.9	38-147			
Surrogate: Dibromofluoromethane	459		ug/L	502		91.4	57-134			
Surrogate: 1,2-Dichloroethane-d4	481		ug/L	504		95.4	53-140			
Surrogate: Toluene-d8	526		ug/L	505		104	86-114			
Surrogate: 4-Bromofluorobenzene	512		ug/L	502		102	78-121			
<b>Matrix Spike Dup (1HI1323-MSD1)</b>										
Source: 1HI0931-03 Prepared: 09/24/24 00:00 Analyzed: 09/24/24 21:30										
Acrylonitrile	430.5	50.0	ug/L	502	ND	85.8	38-147	5.81	30	
Surrogate: Dibromofluoromethane	483		ug/L	502		96.2	57-134			
Surrogate: 1,2-Dichloroethane-d4	494		ug/L	504		98.2	53-140			
Surrogate: Toluene-d8	508		ug/L	505		101	86-114			
Surrogate: 4-Bromofluorobenzene	499		ug/L	502		99.5	78-121			
<b>Batch 1HI1535 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HI1535-BLK1)</b>										
Prepared: 09/26/24 00:00 Analyzed: 09/26/24 23:29										
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							
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							



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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HI1535 - EPA 5030B - EPA 8260B

Blank (1HI1535-BLK1)

Prepared: 09/26/24 00:00 Analyzed: 09/26/24 23:29

Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							

Surrogate: Dibromofluoromethane	53.1		ug/L	50.2		106	75-136
Surrogate: 1,2-Dichloroethane-d4	54.6		ug/L	50.4		109	61-142
Surrogate: Toluene-d8	50.1		ug/L	50.5		99.3	82-121
Surrogate: 4-Bromofluorobenzene	48.7		ug/L	50.2		97.1	80-116

LCS (1HI1535-BS1)

Prepared: 09/26/24 00:00 Analyzed: 09/26/24 22:21

Chloromethane	39.85	1.0	ug/L	30.0		133	63-155
Vinyl Chloride	38.07	1.0	ug/L	30.0		127	70-154
Bromomethane	36.07	1.0	ug/L	30.0		120	52-176
Chloroethane	37.51	1.0	ug/L	30.0		125	72-148
Trichlorofluoromethane	36.34	1.0	ug/L	30.0		121	70-152
1,1-Dichloroethylene	62.65	1.0	ug/L	50.1		125	70-148
Acetone	111.1	10.0	ug/L	100		111	43-172



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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1535 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1HI1535-BS1)</b>										
Prepared: 09/26/24 00:00 Analyzed: 09/26/24 22:21										
Methyl Iodide	115.0	1.0	ug/L	100		115	69-170			
Carbon Disulfide	121.0	1.0	ug/L	100		121	72-162			
Methylene Chloride	58.88	5.0	ug/L	50.2		117	68-142			
trans-1,2-Dichloroethylene	59.31	1.0	ug/L	50.3		118	66-148			
1,1-Dichloroethane	59.77	1.0	ug/L	50.3		119	66-143			
Vinyl Acetate	152.9	5.0	ug/L	156		98.2	43-153			
cis-1,2-Dichloroethylene	56.34	1.0	ug/L	50.5		112	71-149			
2-Butanone (MEK)	105.9	10.0	ug/L	100		106	52-159			
Bromochloromethane	62.32	1.0	ug/L	50.4		124	69-143			
Chloroform	61.31	1.0	ug/L	50.2		122	69-144			
1,1,1-Trichloroethane	59.73	1.0	ug/L	50.3		119	62-129			
Carbon Tetrachloride	51.26	1.0	ug/L	50.2		102	63-141			
Benzene	53.97	1.0	ug/L	50.4		107	71-134			
1,2-Dichloroethane	59.49	1.0	ug/L	50.2		119	72-132			
Trichloroethylene	54.61	1.0	ug/L	50.3		108	71-135			
1,2-Dichloropropane	55.48	1.0	ug/L	50.2		110	69-136			
Dibromomethane	62.19	1.0	ug/L	50.5		123	73-147			
Bromodichloromethane	55.42	1.0	ug/L	50.3		110	68-129			
cis-1,3-Dichloropropene	52.13	1.0	ug/L	50.2		104	65-134			
4-Methyl-2-pentanone (MIBK)	100.7	5.0	ug/L	100		100	58-147			
Toluene	58.84	1.0	ug/L	50.5		117	72-133			
trans-1,3-Dichloropropene	53.08	1.0	ug/L	50.3		106	67-130			
1,1,2-Trichloroethane	52.53	1.0	ug/L	50.2		105	69-135			
Tetrachloroethylene	53.53	1.0	ug/L	50.2		107	69-130			
2-Hexanone (MBK)	100.1	5.0	ug/L	100		100	55-144			
Dibromochloromethane	53.05	1.0	ug/L	50.3		105	73-127			
1,2-Dibromoethane	51.66	1.0	ug/L	50.4		102	67-132			
Chlorobenzene	56.17	1.0	ug/L	50.2		112	72-123			
1,1,1,2-Tetrachloroethane	52.73	1.0	ug/L	50.4		105	73-127			
Ethylbenzene	54.71	1.0	ug/L	50.5		108	71-127			
Xylenes, total	165.3	2.0	ug/L	151		109	74-127			
Styrene	55.69	1.0	ug/L	50.4		110	66-126			
Bromoform	52.50	1.0	ug/L	50.2		105	68-130			
1,2,3-Trichloropropane	52.22	1.0	ug/L	50.4		104	63-136			
trans-1,4-Dichloro-2-butene	99.41	5.0	ug/L	100		99.2	54-134			
1,1,2,2-Tetrachloroethane	51.78	1.0	ug/L	50.2		103	61-131			
1,4-Dichlorobenzene	55.48	1.0	ug/L	50.2		111	70-129			
1,2-Dichlorobenzene	51.47	1.0	ug/L	50.2		103	69-126			
1,2-Dibromo-3-chloropropane	49.18	5.0	ug/L	50.5		97.4	50-143			
Surrogate: Dibromofluoromethane	52.6		ug/L	50.2		105	75-136			
Surrogate: 1,2-Dichloroethane-d4	53.5		ug/L	50.4		106	61-142			
Surrogate: Toluene-d8	50.8		ug/L	50.5		101	82-121			
Surrogate: 4-Bromofluorobenzene	51.3		ug/L	50.2		102	80-116			

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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1535 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1HI1535-BSD1)</b>										
Prepared: 09/26/24 00:00 Analyzed: 09/26/24 22:44										
Chloromethane	40.12	1.0	ug/L	30.0		134	63-155	0.675	24	
Vinyl Chloride	38.46	1.0	ug/L	30.0		128	70-154	1.02	25	
Bromomethane	36.63	1.0	ug/L	30.0		122	52-176	1.54	27	
Chloroethane	38.08	1.0	ug/L	30.0		127	72-148	1.51	25	
Trichlorofluoromethane	36.73	1.0	ug/L	30.0		122	70-152	1.07	26	
1,1-Dichloroethylene	63.63	1.0	ug/L	50.1		127	70-148	1.55	24	
Acetone	116.4	10.0	ug/L	100		116	43-172	4.70	30	
Methyl Iodide	117.6	1.0	ug/L	100		117	69-170	2.16	30	
Carbon Disulfide	122.6	1.0	ug/L	100		122	72-162	1.36	24	
Methylene Chloride	59.13	5.0	ug/L	50.2		118	68-142	0.424	21	
trans-1,2-Dichloroethylene	60.19	1.0	ug/L	50.3		120	66-148	1.47	27	
1,1-Dichloroethane	60.43	1.0	ug/L	50.3		120	66-143	1.10	24	
Vinyl Acetate	162.2	5.0	ug/L	156		104	43-153	5.87	30	
cis-1,2-Dichloroethylene	56.96	1.0	ug/L	50.5		113	71-149	1.09	26	
2-Butanone (MEK)	113.9	10.0	ug/L	100		114	52-159	7.24	27	
Bromochloromethane	61.99	1.0	ug/L	50.4		123	69-143	0.531	23	
Chloroform	61.70	1.0	ug/L	50.2		123	69-144	0.634	23	
1,1,1-Trichloroethane	60.51	1.0	ug/L	50.3		120	62-129	1.30	24	
Carbon Tetrachloride	53.00	1.0	ug/L	50.2		106	63-141	3.34	25	
Benzene	54.19	1.0	ug/L	50.4		107	71-134	0.407	24	
1,2-Dichloroethane	58.43	1.0	ug/L	50.2		116	72-132	1.80	24	
Trichloroethylene	55.12	1.0	ug/L	50.3		109	71-135	0.930	24	
1,2-Dichloropropane	55.43	1.0	ug/L	50.2		110	69-136	0.0902	24	
Dibromomethane	61.22	1.0	ug/L	50.5		121	73-147	1.57	25	
Bromodichloromethane	55.25	1.0	ug/L	50.3		110	68-129	0.307	22	
cis-1,3-Dichloropropene	52.04	1.0	ug/L	50.2		104	65-134	0.173	23	
4-Methyl-2-pentanone (MIBK)	102.4	5.0	ug/L	100		102	58-147	1.69	27	
Toluene	58.65	1.0	ug/L	50.5		116	72-133	0.323	24	
trans-1,3-Dichloropropene	53.12	1.0	ug/L	50.3		106	67-130	0.0753	24	
1,1,2-Trichloroethane	52.28	1.0	ug/L	50.2		104	69-135	0.477	23	
Tetrachloroethylene	53.21	1.0	ug/L	50.2		106	69-130	0.600	25	
2-Hexanone (MBK)	100.7	5.0	ug/L	100		101	55-144	0.608	25	
Dibromochloromethane	53.01	1.0	ug/L	50.3		105	73-127	0.0754	22	
1,2-Dibromoethane	51.20	1.0	ug/L	50.4		102	67-132	0.894	24	
Chlorobenzene	56.02	1.0	ug/L	50.2		112	72-123	0.267	23	
1,1,1,2-Tetrachloroethane	52.80	1.0	ug/L	50.4		105	73-127	0.133	24	
Ethylbenzene	54.34	1.0	ug/L	50.5		108	71-127	0.679	26	
Xylenes, total	164.4	2.0	ug/L	151		109	74-127	0.528	25	
Styrene	55.16	1.0	ug/L	50.4		109	66-126	0.956	23	
Bromoform	52.22	1.0	ug/L	50.2		104	68-130	0.535	23	
1,2,3-Trichloropropane	51.30	1.0	ug/L	50.4		102	63-136	1.78	24	
trans-1,4-Dichloro-2-butene	100.2	5.0	ug/L	100		99.9	54-134	0.752	27	
1,1,2,2-Tetrachloroethane	51.50	1.0	ug/L	50.2		103	61-131	0.542	29	

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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1535 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1HI1535-BSD1)</b>										
				Prepared: 09/26/24 00:00 Analyzed: 09/26/24 22:44						
1,4-Dichlorobenzene	54.38	1.0	ug/L	50.2		108	70-129	2.00	24	
1,2-Dichlorobenzene	50.92	1.0	ug/L	50.2		101	69-126	1.07	26	
1,2-Dibromo-3-chloropropane	50.40	5.0	ug/L	50.5		99.8	50-143	2.45	30	
<i>Surrogate: Dibromofluoromethane</i>	53.4		ug/L	50.2		106	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	54.0		ug/L	50.4		107	61-142			
<i>Surrogate: Toluene-d8</i>	50.6		ug/L	50.5		100	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.6		ug/L	50.2		101	80-116			
<b>Matrix Spike (1HI1535-MS1)</b>										
				Source: 1HI1410-02 Prepared: 09/26/24 00:00 Analyzed: 09/27/24 07:25						
Chloromethane	34.95	1.0	ug/L	30.0	ND	116	61-152			
Vinyl Chloride	33.63	1.0	ug/L	30.0	ND	112	66-149			
Bromomethane	29.78	1.0	ug/L	30.0	ND	99.3	43-171			
Chloroethane	33.81	1.0	ug/L	30.0	ND	113	69-148			
Trichlorofluoromethane	32.05	1.0	ug/L	30.0	ND	107	62-163			
1,1-Dichloroethylene	56.38	1.0	ug/L	50.1	ND	112	70-148			
Acetone	108.2	10.0	ug/L	100	ND	108	45-173			
Methyl Iodide	104.9	1.0	ug/L	100	ND	105	62-167			
Carbon Disulfide	108.5	1.0	ug/L	100	ND	108	71-163			
Methylene Chloride	55.94	5.0	ug/L	50.2	ND	111	69-140			
trans-1,2-Dichloroethylene	54.28	1.0	ug/L	50.3	ND	108	69-144			
1,1-Dichloroethane	55.81	1.0	ug/L	50.3	ND	111	70-138			
Vinyl Acetate	153.0	5.0	ug/L	156	ND	98.2	58-142			
cis-1,2-Dichloroethylene	51.66	1.0	ug/L	50.5	ND	102	68-151			
2-Butanone (MEK)	110.1	10.0	ug/L	100	ND	110	50-160			
Bromochloromethane	58.88	1.0	ug/L	50.4	ND	117	65-143			
Chloroform	57.48	1.0	ug/L	50.2	ND	115	71-143			
1,1,1-Trichloroethane	54.08	1.0	ug/L	50.3	ND	107	63-133			
Carbon Tetrachloride	44.75	1.0	ug/L	50.2	ND	89.1	63-142			
Benzene	51.10	1.0	ug/L	50.4	ND	101	69-133			
1,2-Dichloroethane	57.06	1.0	ug/L	50.2	ND	114	63-138			
Trichloroethylene	50.92	1.0	ug/L	50.3	ND	101	71-133			
1,2-Dichloropropane	53.24	1.0	ug/L	50.2	ND	106	69-132			
Dibromomethane	60.35	1.0	ug/L	50.5	ND	120	70-147			
Bromodichloromethane	52.45	1.0	ug/L	50.3	ND	104	67-130			
cis-1,3-Dichloropropene	45.44	1.0	ug/L	50.2	ND	90.5	61-126			
4-Methyl-2-pentanone (MIBK)	100.4	5.0	ug/L	100	ND	100	55-147			
Toluene	55.28	1.0	ug/L	50.5	ND	110	71-133			
trans-1,3-Dichloropropene	47.82	1.0	ug/L	50.3	ND	95.1	63-124			
1,1,2-Trichloroethane	50.65	1.0	ug/L	50.2	ND	101	69-133			
Tetrachloroethylene	49.21	1.0	ug/L	50.2	ND	98.0	70-124			
2-Hexanone (MBK)	100.1	5.0	ug/L	100	ND	100	53-141			
Dibromochloromethane	51.17	1.0	ug/L	50.3	ND	102	74-122			
1,2-Dibromoethane	49.72	1.0	ug/L	50.4	ND	98.6	66-127			

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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1535 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike (1HI1535-MS1)</b>	<b>Source: 1HI1410-02</b>			Prepared: 09/26/24 00:00 Analyzed: 09/27/24 07:25						
Chlorobenzene	53.82	1.0	ug/L	50.2	ND	107	76-116			
1,1,1,2-Tetrachloroethane	50.31	1.0	ug/L	50.4	ND	99.8	77-121			
Ethylbenzene	51.53	1.0	ug/L	50.5	ND	102	73-124			
Xylenes, total	156.6	2.0	ug/L	151	ND	103	75-123			
Styrene	53.31	1.0	ug/L	50.4	ND	106	70-120			
Bromoform	50.50	1.0	ug/L	50.2	ND	101	70-124			
1,2,3-Trichloropropane	50.49	1.0	ug/L	50.4	ND	100	62-135			
trans-1,4-Dichloro-2-butene	90.28	5.0	ug/L	100	ND	90.1	50-120			
1,1,2,2-Tetrachloroethane	49.42	1.0	ug/L	50.2	ND	98.4	63-126			
1,4-Dichlorobenzene	52.12	1.0	ug/L	50.2	ND	104	72-119			
1,2-Dichlorobenzene	48.39	1.0	ug/L	50.2	ND	96.4	71-117			
1,2-Dibromo-3-chloropropane	47.65	5.0	ug/L	50.5	ND	94.4	49-134			
<i>Surrogate: Dibromofluoromethane</i>	52.1		ug/L	50.2		104	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	53.3		ug/L	50.4		106	61-142			
<i>Surrogate: Toluene-d8</i>	50.5		ug/L	50.5		100	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.9		ug/L	50.2		101	80-116			
<b>Matrix Spike Dup (1HI1535-MSD1)</b>	<b>Source: 1HI1410-02</b>			Prepared: 09/26/24 00:00 Analyzed: 09/27/24 07:48						
Chloromethane	35.44	1.0	ug/L	30.0	ND	118	61-152	1.39	26	
Vinyl Chloride	34.19	1.0	ug/L	30.0	ND	114	66-149	1.65	23	
Bromomethane	32.07	1.0	ug/L	30.0	ND	107	43-171	7.41	29	
Chloroethane	34.58	1.0	ug/L	30.0	ND	115	69-148	2.25	25	
Trichlorofluoromethane	32.86	1.0	ug/L	30.0	ND	110	62-163	2.50	25	
1,1-Dichloroethylene	57.37	1.0	ug/L	50.1	ND	114	70-148	1.74	22	
Acetone	103.5	10.0	ug/L	100	ND	103	45-173	4.41	30	
Methyl Iodide	111.2	1.0	ug/L	100	ND	111	62-167	5.84	24	
Carbon Disulfide	110.3	1.0	ug/L	100	ND	110	71-163	1.64	22	
Methylene Chloride	54.70	5.0	ug/L	50.2	ND	109	69-140	2.24	19	
trans-1,2-Dichloroethylene	54.27	1.0	ug/L	50.3	ND	108	69-144	0.0184	22	
1,1-Dichloroethane	55.61	1.0	ug/L	50.3	ND	111	70-138	0.359	20	
Vinyl Acetate	151.1	5.0	ug/L	156	ND	97.0	58-142	1.20	24	
cis-1,2-Dichloroethylene	51.42	1.0	ug/L	50.5	ND	102	68-151	0.466	22	
2-Butanone (MEK)	108.3	10.0	ug/L	100	ND	108	50-160	1.71	23	
Bromochloromethane	57.83	1.0	ug/L	50.4	ND	115	65-143	1.80	22	
Chloroform	56.98	1.0	ug/L	50.2	ND	114	71-143	0.874	21	
1,1,1-Trichloroethane	54.84	1.0	ug/L	50.3	ND	109	63-133	1.40	23	
Carbon Tetrachloride	46.76	1.0	ug/L	50.2	ND	93.1	63-142	4.39	22	
Benzene	51.20	1.0	ug/L	50.4	ND	101	69-133	0.196	18	
1,2-Dichloroethane	55.68	1.0	ug/L	50.2	ND	111	63-138	2.45	20	
Trichloroethylene	51.12	1.0	ug/L	50.3	ND	102	71-133	0.392	23	
1,2-Dichloropropane	52.50	1.0	ug/L	50.2	ND	105	69-132	1.40	20	
Dibromomethane	58.46	1.0	ug/L	50.5	ND	116	70-147	3.18	22	
Bromodichloromethane	52.24	1.0	ug/L	50.3	ND	104	67-130	0.401	21	

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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1535 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike Dup (1HI1535-MSD1)</b>	<b>Source: 1HI1410-02</b>			Prepared: 09/26/24 00:00 Analyzed: 09/27/24 07:48						
cis-1,3-Dichloropropene	45.35	1.0	ug/L	50.2	ND	90.3	61-126	0.198	21	
4-Methyl-2-pentanone (MIBK)	96.21	5.0	ug/L	100	ND	96.0	55-147	4.22	23	
Toluene	55.29	1.0	ug/L	50.5	ND	110	71-133	0.0181	19	
trans-1,3-Dichloropropene	47.26	1.0	ug/L	50.3	ND	94.0	63-124	1.18	21	
1,1,2-Trichloroethane	49.52	1.0	ug/L	50.2	ND	98.6	69-133	2.26	19	
Tetrachloroethylene	49.14	1.0	ug/L	50.2	ND	97.8	70-124	0.142	24	
2-Hexanone (MBK)	96.40	5.0	ug/L	100	ND	96.3	53-141	3.76	24	
Dibromochloromethane	50.57	1.0	ug/L	50.3	ND	100	74-122	1.18	21	
1,2-Dibromoethane	48.61	1.0	ug/L	50.4	ND	96.4	66-127	2.26	23	
Chlorobenzene	53.46	1.0	ug/L	50.2	ND	106	76-116	0.671	21	
1,1,1,2-Tetrachloroethane	49.96	1.0	ug/L	50.4	ND	99.1	77-121	0.698	25	
Ethylbenzene	51.29	1.0	ug/L	50.5	ND	102	73-124	0.467	20	
Xylenes, total	155.4	2.0	ug/L	151	ND	103	75-123	0.756	20	
Styrene	52.58	1.0	ug/L	50.4	ND	104	70-120	1.38	23	
Bromoform	49.59	1.0	ug/L	50.2	ND	98.7	70-124	1.82	22	
1,2,3-Trichloropropane	48.65	1.0	ug/L	50.4	ND	96.5	62-135	3.71	28	
trans-1,4-Dichloro-2-butene	88.02	5.0	ug/L	100	ND	87.8	50-120	2.54	26	
1,1,2,2-Tetrachloroethane	48.95	1.0	ug/L	50.2	ND	97.5	63-126	0.956	24	
1,4-Dichlorobenzene	51.59	1.0	ug/L	50.2	ND	103	72-119	1.02	24	
1,2-Dichlorobenzene	48.07	1.0	ug/L	50.2	ND	95.8	71-117	0.663	24	
1,2-Dibromo-3-chloropropane	47.57	5.0	ug/L	50.5	ND	94.2	49-134	0.168	28	
Surrogate: Dibromofluoromethane	51.8		ug/L	50.2		103	75-136			
Surrogate: 1,2-Dichloroethane-d4	52.7		ug/L	50.4		105	61-142			
Surrogate: Toluene-d8	50.6		ug/L	50.5		100	82-121			
Surrogate: 4-Bromofluorobenzene	50.8		ug/L	50.2		101	80-116			

**Batch 1HJ0018 - EPA 5030B - EPA 8260B**

Blank (1HJ0018-BLK1)	Prepared: 09/30/24 00:00 Analyzed: 09/30/24 17:45									
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							



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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HJ0018 - EPA 5030B - EPA 8260B</b>										
<b>Blank (1HJ0018-BLK1)</b>										
Prepared: 09/30/24 00:00 Analyzed: 09/30/24 17:45										
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							
<i>Surrogate: Dibromofluoromethane</i>	51.6		ug/L	50.2		103	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	54.0		ug/L	50.4		107	61-142			
<i>Surrogate: Toluene-d8</i>	50.8		ug/L	50.5		101	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	52.4		ug/L	50.2		104	80-116			
<b>LCS (1HJ0018-BS1)</b>										
Prepared: 09/30/24 00:00 Analyzed: 09/30/24 16:38										
Chloromethane	31.14	1.0	ug/L	30.0		104	63-155			
Vinyl Chloride	30.30	1.0	ug/L	30.0		101	70-154			
Bromomethane	29.07	1.0	ug/L	30.0		96.9	52-176			
Chloroethane	32.68	1.0	ug/L	30.0		109	72-148			
Trichlorofluoromethane	33.34	1.0	ug/L	30.0		111	70-152			

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HJ0018 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1HJ0018-BS1)</b>										
				Prepared: 09/30/24 00:00 Analyzed: 09/30/24 16:38						
1,1-Dichloroethylene	100.7	1.0	ug/L	100		101	70-148			
Acetone	104.8	10.0	ug/L	101		104	43-172			
Methyl Iodide	104.7	1.0	ug/L	102		103	69-170			
Carbon Disulfide	99.47	1.0	ug/L	103		96.9	72-162			
Methylene Chloride	95.82	5.0	ug/L	100		95.8	68-142			
trans-1,2-Dichloroethylene	97.33	1.0	ug/L	100		97.3	66-148			
1,1-Dichloroethane	97.00	1.0	ug/L	100		97.0	66-143			
Vinyl Acetate	93.11	5.0	ug/L	100		93.1	43-153			
cis-1,2-Dichloroethylene	88.97	1.0	ug/L	100		89.0	71-149			
2-Butanone (MEK)	87.82	10.0	ug/L	102		86.3	52-159			
Bromochloromethane	94.56	1.0	ug/L	100		94.6	69-143			
Chloroform	98.08	1.0	ug/L	100		98.1	69-144			
1,1,1-Trichloroethane	94.56	1.0	ug/L	100		94.6	62-129			
Carbon Tetrachloride	97.05	1.0	ug/L	100		97.0	63-141			
Benzene	120.8	1.0	ug/L	100		121	71-134			
1,2-Dichloroethane	113.4	1.0	ug/L	100		113	72-132			
Trichloroethylene	98.86	1.0	ug/L	100		98.9	71-135			
1,2-Dichloropropane	92.86	1.0	ug/L	100		92.9	69-136			
Dibromomethane	97.00	1.0	ug/L	100		97.0	73-147			
Bromodichloromethane	97.17	1.0	ug/L	100		97.2	68-129			
cis-1,3-Dichloropropene	97.76	1.0	ug/L	100		97.8	65-134			
4-Methyl-2-pentanone (MIBK)	99.12	5.0	ug/L	100		99.0	58-147			
Toluene	98.44	1.0	ug/L	100		98.4	72-133			
trans-1,3-Dichloropropene	98.15	1.0	ug/L	100		98.2	67-130			
1,1,2-Trichloroethane	95.28	1.0	ug/L	100		95.3	69-135			
Tetrachloroethylene	97.22	1.0	ug/L	100		97.2	69-130			
2-Hexanone (MBK)	87.46	5.0	ug/L	99.3		88.1	55-144			
Dibromochloromethane	88.09	1.0	ug/L	100		88.1	73-127			
1,2-Dibromoethane	84.48	1.0	ug/L	100		84.5	67-132			
Chlorobenzene	97.88	1.0	ug/L	100		97.9	72-123			
1,1,1,2-Tetrachloroethane	93.32	1.0	ug/L	100		93.3	73-127			
Ethylbenzene	94.83	1.0	ug/L	100		94.8	71-127			
Xylenes, total	270.3	2.0	ug/L	300		90.1	74-127			
Styrene	89.04	1.0	ug/L	100		89.0	66-126			
Bromoform	82.68	1.0	ug/L	100		82.7	68-130			
1,2,3-Trichloropropane	84.95	1.0	ug/L	100		85.0	63-136			
trans-1,4-Dichloro-2-butene	78.91	5.0	ug/L	103		76.8	54-134			
1,1,2,2-Tetrachloroethane	97.46	1.0	ug/L	100		97.5	61-131			
1,4-Dichlorobenzene	98.22	1.0	ug/L	100		98.2	70-129			
1,2-Dichlorobenzene	95.87	1.0	ug/L	100		95.9	69-126			
1,2-Dibromo-3-chloropropane	84.51	5.0	ug/L	100		84.5	50-143			
Surrogate: Dibromofluoromethane	51.5		ug/L	50.2		103	75-136			

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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HJ0018 - EPA 5030B - EPA 8260B</b>										
<b>LCS (1HJ0018-BS1)</b>										
				Prepared: 09/30/24 00:00 Analyzed: 09/30/24 16:38						
Surrogate: 1,2-Dichloroethane-d4	50.1		ug/L	50.4		99.5	61-142			
Surrogate: Toluene-d8	52.2		ug/L	50.5		103	82-121			
Surrogate: 4-Bromofluorobenzene	44.8		ug/L	50.2		89.3	80-116			
<b>LCS Dup (1HJ0018-BSD1)</b>										
				Prepared: 09/30/24 00:00 Analyzed: 09/30/24 17:00						
Chloromethane	31.31	1.0	ug/L	30.0		104	63-155	0.544	24	
Vinyl Chloride	31.10	1.0	ug/L	30.0		104	70-154	2.61	25	
Bromomethane	30.40	1.0	ug/L	30.0		101	52-176	4.47	27	
Chloroethane	40.15	1.0	ug/L	30.0		134	72-148	20.5	25	
Trichlorofluoromethane	37.15	1.0	ug/L	30.0		124	70-152	10.8	26	
1,1-Dichloroethylene	120.2	1.0	ug/L	100		120	70-148	17.7	24	
Acetone	128.6	10.0	ug/L	101		127	43-172	20.3	30	
Methyl Iodide	112.8	1.0	ug/L	102		111	69-170	7.41	30	
Carbon Disulfide	103.8	1.0	ug/L	103		101	72-162	4.28	24	
Methylene Chloride	103.5	5.0	ug/L	100		103	68-142	7.70	21	
trans-1,2-Dichloroethylene	105.0	1.0	ug/L	100		105	66-148	7.58	27	
1,1-Dichloroethane	105.0	1.0	ug/L	100		105	66-143	7.92	24	
Vinyl Acetate	109.3	5.0	ug/L	100		109	43-153	16.0	30	
cis-1,2-Dichloroethylene	99.91	1.0	ug/L	100		99.9	71-149	11.6	26	
2-Butanone (MEK)	113.5	10.0	ug/L	102		112	52-159	25.5	27	
Bromochloromethane	104.8	1.0	ug/L	100		105	69-143	10.3	23	
Chloroform	101.3	1.0	ug/L	100		101	69-144	3.21	23	
1,1,1-Trichloroethane	96.43	1.0	ug/L	100		96.4	62-129	1.96	24	
Carbon Tetrachloride	102.6	1.0	ug/L	100		103	63-141	5.57	25	
Benzene	104.4	1.0	ug/L	100		104	71-134	14.5	24	
1,2-Dichloroethane	108.5	1.0	ug/L	100		108	72-132	4.41	24	
Trichloroethylene	100.6	1.0	ug/L	100		101	71-135	1.73	24	
1,2-Dichloropropane	96.26	1.0	ug/L	100		96.3	69-136	3.60	24	
Dibromomethane	103.2	1.0	ug/L	100		103	73-147	6.23	25	
Bromodichloromethane	99.84	1.0	ug/L	100		99.8	68-129	2.71	22	
cis-1,3-Dichloropropene	100.5	1.0	ug/L	100		100	65-134	2.74	23	
4-Methyl-2-pentanone (MIBK)	130.8	5.0	ug/L	100		131	58-147	27.5	27	R1
Toluene	110.9	1.0	ug/L	100		111	72-133	11.9	24	
trans-1,3-Dichloropropene	103.2	1.0	ug/L	100		103	67-130	5.05	24	
1,1,2-Trichloroethane	101.6	1.0	ug/L	100		102	69-135	6.41	23	
Tetrachloroethylene	104.3	1.0	ug/L	100		104	69-130	7.03	25	
2-Hexanone (MBK)	116.6	5.0	ug/L	99.3		117	55-144	28.5	25	R1
Dibromochloromethane	101.6	1.0	ug/L	100		102	73-127	14.2	22	
1,2-Dibromoethane	99.26	1.0	ug/L	100		99.3	67-132	16.1	24	
Chlorobenzene	100.4	1.0	ug/L	100		100	72-123	2.53	23	
1,1,1,2-Tetrachloroethane	99.92	1.0	ug/L	100		99.9	73-127	6.83	24	
Ethylbenzene	98.36	1.0	ug/L	100		98.4	71-127	3.65	26	
Xylenes, total	306.3	2.0	ug/L	300		102	74-127	12.5	25	

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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HJ0018 - EPA 5030B - EPA 8260B</b>										
<b>LCS Dup (1HJ0018-BSD1)</b>										
				Prepared: 09/30/24 00:00 Analyzed: 09/30/24 17:00						
Styrene	100.8	1.0	ug/L	100		101	66-126	12.4	23	
Bromoform	100.6	1.0	ug/L	100		101	68-130	19.6	23	
1,2,3-Trichloropropane	115.0	1.0	ug/L	100		115	63-136	30.0	24	R1
trans-1,4-Dichloro-2-butene	107.0	5.0	ug/L	103		104	54-134	30.2	27	R1
1,1,2,2-Tetrachloroethane	131.2	1.0	ug/L	100		131	61-131	29.5	29	R1
1,4-Dichlorobenzene	100.3	1.0	ug/L	100		100	70-129	2.14	24	
1,2-Dichlorobenzene	100.2	1.0	ug/L	100		100	69-126	4.46	26	
1,2-Dibromo-3-chloropropane	101.2	5.0	ug/L	100		101	50-143	18.0	30	
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Surrogate: Dibromofluoromethane	51.2		ug/L	50.2		102	75-136			
Surrogate: 1,2-Dichloroethane-d4	52.6		ug/L	50.4		104	61-142			
Surrogate: Toluene-d8	58.3		ug/L	50.5		116	82-121			
Surrogate: 4-Bromofluorobenzene	49.5		ug/L	50.2		98.7	80-116			
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<b>Matrix Spike (1HJ0018-MS1)</b>										
				Source: 1HI1410-21 Prepared: 09/30/24 00:00 Analyzed: 10/01/24 02:24						
Chloromethane	318.8	10.0	ug/L	300	ND	106	61-152			
Vinyl Chloride	313.8	10.0	ug/L	300	ND	105	66-149			
Bromomethane	198.7	10.0	ug/L	300	ND	66.2	43-171			
Chloroethane	331.9	10.0	ug/L	300	ND	111	69-148			
Trichlorofluoromethane	326.2	10.0	ug/L	300	ND	109	62-163			
1,1-Dichloroethylene	1029	10.0	ug/L	1000	ND	103	70-148			
Acetone	1163	100	ug/L	1010	ND	115	45-173			
Methyl Iodide	851.3	10.0	ug/L	1020	ND	83.6	62-167			
Carbon Disulfide	1019	10.0	ug/L	1030	ND	99.2	71-163			
Methylene Chloride	986.3	50.0	ug/L	1000	ND	98.6	69-140			
trans-1,2-Dichloroethylene	1015	10.0	ug/L	1000	ND	101	69-144			
1,1-Dichloroethane	1010	10.0	ug/L	1000	ND	101	70-138			
Vinyl Acetate	1010	50.0	ug/L	1000	ND	101	58-142			
cis-1,2-Dichloroethylene	915.9	10.0	ug/L	1000	ND	91.6	68-151			
2-Butanone (MEK)	1056	100	ug/L	1020	ND	104	50-160			
Bromochloromethane	1126	10.0	ug/L	1000	ND	113	65-143			
Chloroform	1041	10.0	ug/L	1000	ND	104	71-143			
1,1,1-Trichloroethane	977.6	10.0	ug/L	1000	ND	97.8	63-133			
Carbon Tetrachloride	1022	10.0	ug/L	1000	ND	102	63-142			
Benzene	1221	10.0	ug/L	1000	ND	122	69-133			
1,2-Dichloroethane	1191	10.0	ug/L	1000	ND	119	63-138			
Trichloroethylene	1024	10.0	ug/L	1000	ND	102	71-133			
1,2-Dichloropropane	982.3	10.0	ug/L	1000	ND	98.2	69-132			
Dibromomethane	1044	10.0	ug/L	1000	ND	104	70-147			
Bromodichloromethane	1007	10.0	ug/L	1000	ND	101	67-130			
cis-1,3-Dichloropropene	990.2	10.0	ug/L	1000	ND	99.0	61-126			
4-Methyl-2-pentanone (MIBK)	1185	50.0	ug/L	1000	ND	118	55-147			
Toluene	1041	10.0	ug/L	1000	ND	104	71-133			
trans-1,3-Dichloropropene	1008	10.0	ug/L	1000	ND	101	63-124			

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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HJ0018 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike (1HJ0018-MS1)</b>	<b>Source: 1HI1410-21</b>			Prepared: 09/30/24 00:00 Analyzed: 10/01/24 02:24						
1,1,2-Trichloroethane	1158	10.0	ug/L	1000	ND	116	69-133			
Tetrachloroethylene	1139	10.0	ug/L	1000	ND	114	70-124			
2-Hexanone (MBK)	1259	50.0	ug/L	993	ND	127	53-141			
Dibromochloromethane	1094	10.0	ug/L	1000	ND	109	74-122			
1,2-Dibromoethane	1088	10.0	ug/L	1000	ND	109	66-127			
Chlorobenzene	1006	10.0	ug/L	1000	ND	101	76-116			
1,1,1,2-Tetrachloroethane	984.3	10.0	ug/L	1000	ND	98.4	77-121			
Ethylbenzene	995.7	10.0	ug/L	1000	ND	99.6	73-124			
Xylenes, total	3082	20.0	ug/L	3000	ND	103	75-123			
Styrene	1007	10.0	ug/L	1000	ND	101	70-120			
Bromoform	971.3	10.0	ug/L	1000	ND	97.1	70-124			
1,2,3-Trichloropropane	1078	10.0	ug/L	1000	ND	108	62-135			
trans-1,4-Dichloro-2-butene	921.3	50.0	ug/L	1030	ND	89.6	50-120			
1,1,2,2-Tetrachloroethane	1269	10.0	ug/L	1000	ND	127	63-126			M1
1,4-Dichlorobenzene	987.9	10.0	ug/L	1000	ND	98.8	72-119			
1,2-Dichlorobenzene	992.1	10.0	ug/L	1000	ND	99.2	71-117			
1,2-Dibromo-3-chloropropane	1009	50.0	ug/L	1000	ND	101	49-134			
<i>Surrogate: Dibromofluoromethane</i>	519		ug/L	502		103	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	520		ug/L	504		103	61-142			
<i>Surrogate: Toluene-d8</i>	534		ug/L	505		106	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	500		ug/L	502		99.7	80-116			
<b>Matrix Spike Dup (1HJ0018-MSD1)</b>	<b>Source: 1HI1410-21</b>			Prepared: 09/30/24 00:00 Analyzed: 10/01/24 02:46						
Chloromethane	309.0	10.0	ug/L	300	ND	103	61-152	3.12	26	
Vinyl Chloride	301.7	10.0	ug/L	300	ND	101	66-149	3.93	23	
Bromomethane	223.3	10.0	ug/L	300	ND	74.4	43-171	11.7	29	
Chloroethane	336.2	10.0	ug/L	300	ND	112	69-148	1.29	25	
Trichlorofluoromethane	325.8	10.0	ug/L	300	ND	109	62-163	0.123	25	
1,1-Dichloroethylene	1040	10.0	ug/L	1000	ND	104	70-148	1.10	22	
Acetone	1199	100	ug/L	1010	ND	118	45-173	3.07	30	
Methyl Iodide	1014	10.0	ug/L	1020	ND	99.5	62-167	17.4	24	
Carbon Disulfide	1025	10.0	ug/L	1030	ND	99.8	71-163	0.626	22	
Methylene Chloride	1014	50.0	ug/L	1000	ND	101	69-140	2.80	19	
trans-1,2-Dichloroethylene	1043	10.0	ug/L	1000	ND	104	69-144	2.72	22	
1,1-Dichloroethane	1046	10.0	ug/L	1000	ND	105	70-138	3.43	20	
Vinyl Acetate	1066	50.0	ug/L	1000	ND	107	58-142	5.34	24	
cis-1,2-Dichloroethylene	942.6	10.0	ug/L	1000	ND	94.3	68-151	2.87	22	
2-Butanone (MEK)	1087	100	ug/L	1020	ND	107	50-160	2.86	23	
Bromochloromethane	1056	10.0	ug/L	1000	ND	106	65-143	6.34	22	
Chloroform	981.8	10.0	ug/L	1000	ND	98.2	71-143	5.89	21	
1,1,1-Trichloroethane	940.0	10.0	ug/L	1000	ND	94.0	63-133	3.92	23	
Carbon Tetrachloride	993.9	10.0	ug/L	1000	ND	99.4	63-142	2.81	22	
Benzene	949.0	10.0	ug/L	1000	ND	94.9	69-133	25.1	18	R1

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1HI1410

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HJ0018 - EPA 5030B - EPA 8260B</b>										
<b>Matrix Spike Dup (1HJ0018-MSD1)</b>	<b>Source: 1HI1410-21</b>			Prepared: 09/30/24 00:00 Analyzed: 10/01/24 02:46						
1,2-Dichloroethane	961.1	10.0	ug/L	1000	ND	96.1	63-138	21.4	20	R1
Trichloroethylene	987.5	10.0	ug/L	1000	ND	98.8	71-133	3.58	23	
1,2-Dichloropropane	974.7	10.0	ug/L	1000	ND	97.5	69-132	0.777	20	
Dibromomethane	990.5	10.0	ug/L	1000	ND	99.0	70-147	5.22	22	
Bromodichloromethane	972.9	10.0	ug/L	1000	ND	97.3	67-130	3.41	21	
cis-1,3-Dichloropropene	966.8	10.0	ug/L	1000	ND	96.7	61-126	2.39	21	
4-Methyl-2-pentanone (MIBK)	1052	50.0	ug/L	1000	ND	105	55-147	11.9	23	
Toluene	901.9	10.0	ug/L	1000	ND	90.2	71-133	14.3	19	
trans-1,3-Dichloropropene	883.7	10.0	ug/L	1000	ND	88.4	63-124	13.1	21	
1,1,2-Trichloroethane	906.7	10.0	ug/L	1000	ND	90.7	69-133	24.3	19	R1
Tetrachloroethylene	993.6	10.0	ug/L	1000	ND	99.4	70-124	13.6	24	
2-Hexanone (MBK)	1101	50.0	ug/L	993	ND	111	53-141	13.4	24	
Dibromochloromethane	984.9	10.0	ug/L	1000	ND	98.5	74-122	10.5	21	
1,2-Dibromoethane	970.3	10.0	ug/L	1000	ND	97.0	66-127	11.4	23	
Chlorobenzene	976.6	10.0	ug/L	1000	ND	97.7	76-116	3.01	21	
1,1,1,2-Tetrachloroethane	965.4	10.0	ug/L	1000	ND	96.5	77-121	1.94	25	
Ethylbenzene	966.7	10.0	ug/L	1000	ND	96.7	73-124	2.96	20	
Xylenes, total	3000	20.0	ug/L	3000	ND	100	75-123	2.69	20	
Styrene	989.1	10.0	ug/L	1000	ND	98.9	70-120	1.81	23	
Bromoform	953.8	10.0	ug/L	1000	ND	95.4	70-124	1.82	22	
1,2,3-Trichloropropane	1134	10.0	ug/L	1000	ND	113	62-135	5.09	28	
trans-1,4-Dichloro-2-butene	967.5	50.0	ug/L	1030	ND	94.1	50-120	4.89	26	
1,1,2,2-Tetrachloroethane	1276	10.0	ug/L	1000	ND	128	63-126	0.558	24	M1
1,4-Dichlorobenzene	954.1	10.0	ug/L	1000	ND	95.4	72-119	3.48	24	
1,2-Dichlorobenzene	949.6	10.0	ug/L	1000	ND	95.0	71-117	4.38	24	
1,2-Dibromo-3-chloropropane	960.2	50.0	ug/L	1000	ND	96.0	49-134	5.00	28	
Surrogate: Dibromofluoromethane	512		ug/L	502		102	75-136			
Surrogate: 1,2-Dichloroethane-d4	530		ug/L	504		105	61-142			
Surrogate: Toluene-d8	482		ug/L	505		95.5	82-121			
Surrogate: 4-Bromofluorobenzene	544		ug/L	502		109	80-116			

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1341 - EPA 625 Base Neutral - EPA 8270C</b>										
<b>Blank (1HI1341-BLK1)</b>	Prepared: 09/25/24 09:41 Analyzed: 09/30/24 18:05									
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L							
Surrogate: Nitrobenzene-d5	22.3		ug/L	30.8		72.2	20-149			
Surrogate: 2-Fluorobiphenyl	27.4		ug/L	29.3		93.6	11-146			
Surrogate: Terphenyl-d14	26.7		ug/L	30.9		86.4	27-155			
<b>LCS (1HI1341-BS1)</b>	Prepared: 09/25/24 09:41 Analyzed: 09/30/24 18:29									



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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HI1341 - EPA 625 Base Neutral - EPA 8270C

Bis(2-Ethylhexyl) Phthalate	20.4	6	ug/L	24.0		84.9	27-186			
Surrogate: Nitrobenzene-d5	21.7		ug/L	30.8		70.4	31-137			
Surrogate: 2-Fluorobiphenyl	24.7		ug/L	29.3		84.5	29-131			
Surrogate: Terphenyl-d14	29.7		ug/L	30.9		96.2	30-142			

LCS Dup (1HI1341-BSD1)

Prepared: 09/25/24 09:41 Analyzed: 09/30/24 18:54

Bis(2-Ethylhexyl) Phthalate	20.5	6	ug/L	24.0		85.4	27-186	0.587	30	
Surrogate: Nitrobenzene-d5	22.1		ug/L	30.8		71.8	31-137			
Surrogate: 2-Fluorobiphenyl	24.0		ug/L	29.3		82.0	29-131			
Surrogate: Terphenyl-d14	29.0		ug/L	30.9		94.0	30-142			

Determination of Conventional Chemistry Parameters

Batch 1HI1182 - Wet Chem Preparation - 2320B

Blank (1HI1182-BLK1)

Prepared & Analyzed: 09/23/24 10:40

Alkalinity, as CaCO3	<10	10	mg/L							
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LCS (1HI1182-BS1)

Prepared & Analyzed: 09/23/24 10:40

Alkalinity, as CaCO3	51.9	10	mg/L	50.0		104	82-112			
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Matrix Spike (1HI1182-MS1)

Source: 1HI1245-04

Prepared & Analyzed: 09/23/24 10:40

Alkalinity, as CaCO3	214	10	mg/L	50.0	176	75.6	70-113			
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Matrix Spike Dup (1HI1182-MSD1)

Source: 1HI1245-04

Prepared & Analyzed: 09/23/24 10:40

Alkalinity, as CaCO3	211	10	mg/L	50.0	176	71.2	70-113	1.04	10	
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Batch 1HI1265 - Wet Chem Preparation - SM 4500 H+ B

Duplicate (1HI1265-DUP1)

Source: 1HI1284-01

Prepared & Analyzed: 09/24/24 11:39

pH	7.6	0.5	pH	7.6				0.225	10	
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Reference (1HI1265-SRM1)

Prepared & Analyzed: 09/24/24 11:39

pH	7.0	0.5	pH	7.00		99.7	90-110			
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Reference (1HI1265-SRM2)

Prepared & Analyzed: 09/24/24 11:39

pH	7.0	0.5	pH	7.00		99.4	90-110			
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Determination of Total Metals

Batch 1HI1117 - EPA 3005A Total Recoverable Metals - EPA 6020A

Blank (1HI1117-BLK1)

Prepared: 09/20/24 11:23 Analyzed: 09/24/24 17:57

Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0040	0.0040	mg/L							
Barium, total	<0.0040	0.0040	mg/L							



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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1117 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Blank (1HI1117-BLK1)</b>										
Prepared: 09/20/24 11:23 Analyzed: 09/24/24 17:57										
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							
<b>LCS (1HI1117-BS1)</b>										
Prepared: 09/20/24 11:23 Analyzed: 09/24/24 18:03										
Antimony, total	0.0988	0.0020	mg/L	0.100		98.8	80-120			
Arsenic, total	0.0998	0.0040	mg/L	0.100		99.8	80-120			
Barium, total	0.106	0.0040	mg/L	0.100		106	80-120			
Beryllium, total	0.0998	0.0040	mg/L	0.100		99.8	80-120			
Cadmium, total	0.102	0.0008	mg/L	0.100		102	80-120			
Chromium, total	0.0968	0.0080	mg/L	0.100		96.8	80-120			
Cobalt, total	0.102	0.0004	mg/L	0.100		102	80-120			
Copper, total	0.101	0.0040	mg/L	0.100		101	80-120			
Lead, total	0.0974	0.0040	mg/L	0.100		97.4	80-120			
Nickel, total	0.103	0.0040	mg/L	0.100		103	80-120			
Selenium, total	0.0987	0.0040	mg/L	0.100		98.7	80-120			
Silver, total	0.0981	0.0040	mg/L	0.100		98.1	80-120			
Thallium, total	0.0984	0.0020	mg/L	0.100		98.4	80-120			
Vanadium, total	0.0971	0.0200	mg/L	0.100		97.1	80-120			
Zinc, total	0.113	0.0200	mg/L	0.100		113	80-120			
<b>Matrix Spike (1HI1117-MS1)</b>										
Source: 1HI1410-01 Prepared: 09/20/24 11:23 Analyzed: 09/24/24 18:28										
Antimony, total	0.104	0.0020	mg/L	0.100	0.0024	101	75-125			
Arsenic, total	0.105	0.0040	mg/L	0.100	0.0048	99.9	75-125			
Barium, total	0.633	0.0040	mg/L	0.100	0.477	156	75-125			M6
Beryllium, total	0.0983	0.0040	mg/L	0.100	ND	98.3	75-125			
Cadmium, total	0.103	0.0008	mg/L	0.100	0.0025	100	75-125			
Chromium, total	0.0971	0.0080	mg/L	0.100	0.0016	95.5	75-125			
Cobalt, total	0.106	0.0004	mg/L	0.100	0.0023	104	75-125			
Copper, total	0.102	0.0040	mg/L	0.100	0.0047	97.6	75-125			
Lead, total	0.0959	0.0040	mg/L	0.100	ND	95.9	75-125			
Nickel, total	0.139	0.0040	mg/L	0.100	0.0336	106	75-125			
Selenium, total	0.1060	0.0040	mg/L	0.100	0.0089	97.1	75-125			
Silver, total	0.0994	0.0040	mg/L	0.100	ND	99.4	75-125			
Thallium, total	0.0991	0.0020	mg/L	0.100	0.0002	98.8	75-125			
Vanadium, total	0.101	0.0200	mg/L	0.100	ND	101	75-125			



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CERTIFICATE OF ANALYSIS

1HI1410

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1117 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Matrix Spike (1HI1117-MS1)</b> Source: 1HI1410-01 Prepared: 09/20/24 11:23 Analyzed: 09/24/24 18:28										
Zinc, total	0.174	0.0200	mg/L	0.100	0.0735	100	75-125			
<b>Matrix Spike Dup (1HI1117-MSD1)</b> Source: 1HI1410-01 Prepared: 09/20/24 11:23 Analyzed: 09/24/24 18:34										
Antimony, total	0.102	0.0020	mg/L	0.100	0.0024	99.4	75-125	1.99	20	
Arsenic, total	0.105	0.0040	mg/L	0.100	0.0048	100	75-125	0.0802	20	
Barium, total	0.638	0.0040	mg/L	0.100	0.477	160	75-125	0.693	20	M6
Beryllium, total	0.0994	0.0040	mg/L	0.100	ND	99.4	75-125	1.09	20	
Cadmium, total	0.102	0.0008	mg/L	0.100	0.0025	99.6	75-125	0.556	20	
Chromium, total	0.0973	0.0080	mg/L	0.100	0.0016	95.7	75-125	0.190	20	
Cobalt, total	0.106	0.0004	mg/L	0.100	0.0023	104	75-125	0.0291	20	
Copper, total	0.102	0.0040	mg/L	0.100	0.0047	97.3	75-125	0.278	20	
Lead, total	0.105	0.0040	mg/L	0.100	ND	105	75-125	8.98	20	
Nickel, total	0.136	0.0040	mg/L	0.100	0.0336	103	75-125	2.06	20	
Selenium, total	0.1081	0.0040	mg/L	0.100	0.0089	99.2	75-125	1.91	20	
Silver, total	0.0995	0.0040	mg/L	0.100	ND	99.5	75-125	0.116	20	
Thallium, total	0.0997	0.0020	mg/L	0.100	0.0002	99.5	75-125	0.620	20	
Vanadium, total	0.103	0.0200	mg/L	0.100	ND	103	75-125	1.31	20	
Zinc, total	0.173	0.0200	mg/L	0.100	0.0735	99.4	75-125	0.462	20	
<b>Post Spike (1HI1117-PS1)</b> Source: 1HI1410-01 Prepared: 09/20/24 11:23 Analyzed: 09/24/24 18:40										
Antimony, total	0.0810		mg/L	0.0800	0.0024	98.2	80-120			
Arsenic, total	0.0857		mg/L	0.0800	0.0047	101	80-120			
Barium, total	0.573		mg/L	0.0800	0.468	131	80-120			M6
Beryllium, total	0.0756		mg/L	0.0800	0.00002	94.5	80-120			
Cadmium, total	0.0797		mg/L	0.0800	0.0025	96.6	80-120			
Chromium, total	0.0756		mg/L	0.0800	0.0015	92.5	80-120			
Cobalt, total	0.0856		mg/L	0.0800	0.0022	104	80-120			
Copper, total	0.0813		mg/L	0.0800	0.0046	95.9	80-120			
Lead, total	0.0759		mg/L	0.0800	0.0003	94.5	80-120			
Nickel, total	0.115		mg/L	0.0800	0.0329	103	80-120			
Selenium, total	0.0870		mg/L	0.0800	0.0087	97.9	80-120			
Silver, total	0.0782		mg/L	0.0800	0.0002	97.4	80-120			
Thallium, total	0.0784		mg/L	0.0800	0.0002	97.7	80-120			
Vanadium, total	0.0809		mg/L	0.0800	0.0041	96.0	80-120			
Zinc, total	0.148		mg/L	0.0800	0.0721	94.4	80-120			
<b>Batch 1HI1119 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Blank (1HI1119-BLK1)</b> Prepared: 09/20/24 11:30 Analyzed: 09/24/24 21:07										
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							



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1119 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Blank (1HI1119-BLK1)</b> Prepared: 09/20/24 11:30 Analyzed: 09/24/24 21:07										
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							
<b>LCS (1HI1119-BS1)</b> Prepared: 09/20/24 11:30 Analyzed: 09/24/24 21:13										
Antimony, total	0.0986	0.0020	mg/L	0.100		98.6	80-120			
Arsenic, total	0.0975	0.0040	mg/L	0.100		97.5	80-120			
Barium, total	0.106	0.0040	mg/L	0.100		106	80-120			
Beryllium, total	0.0993	0.0040	mg/L	0.100		99.3	80-120			
Cadmium, total	0.102	0.0008	mg/L	0.100		102	80-120			
Chromium, total	0.0963	0.0080	mg/L	0.100		96.3	80-120			
Cobalt, total	0.0999	0.0004	mg/L	0.100		99.9	80-120			
Copper, total	0.0973	0.0040	mg/L	0.100		97.3	80-120			
Lead, total	0.0979	0.0040	mg/L	0.100		97.9	80-120			
Nickel, total	0.0985	0.0040	mg/L	0.100		98.5	80-120			
Selenium, total	0.0984	0.0040	mg/L	0.100		98.4	80-120			
Silver, total	0.100	0.0040	mg/L	0.100		100	80-120			
Thallium, total	0.0995	0.0020	mg/L	0.100		99.5	80-120			
Vanadium, total	0.0982	0.0200	mg/L	0.100		98.2	80-120			
Zinc, total	0.0996	0.0200	mg/L	0.100		99.6	80-120			
<b>Matrix Spike (1HI1119-MS1)</b> Source: 1HI1410-24 Prepared: 09/20/24 11:30 Analyzed: 09/24/24 21:32										
Antimony, total	0.101	0.0020	mg/L	0.100	0.0009	100	75-125			
Arsenic, total	0.112	0.0040	mg/L	0.100	0.0097	102	75-125			
Barium, total	0.191	0.0040	mg/L	0.100	0.0831	107	75-125			
Beryllium, total	0.0912	0.0040	mg/L	0.100	ND	91.2	75-125			
Cadmium, total	0.0961	0.0008	mg/L	0.100	ND	96.1	75-125			
Chromium, total	0.0924	0.0080	mg/L	0.100	0.0009	91.5	75-125			
Cobalt, total	0.105	0.0004	mg/L	0.100	0.0008	104	75-125			
Copper, total	0.0932	0.0040	mg/L	0.100	ND	93.2	75-125			
Lead, total	0.0933	0.0040	mg/L	0.100	ND	93.3	75-125			
Nickel, total	0.103	0.0040	mg/L	0.100	0.0028	100	75-125			
Selenium, total	0.0977	0.0040	mg/L	0.100	ND	97.7	75-125			
Silver, total	0.0966	0.0040	mg/L	0.100	ND	96.6	75-125			
Thallium, total	0.0958	0.0020	mg/L	0.100	ND	95.8	75-125			
Vanadium, total	0.0992	0.0200	mg/L	0.100	ND	99.2	75-125			
Zinc, total	0.0978	0.0200	mg/L	0.100	ND	97.8	75-125			
<b>Matrix Spike Dup (1HI1119-MSD1)</b> Source: 1HI1410-24 Prepared: 09/20/24 11:30 Analyzed: 09/24/24 21:38										
Antimony, total	0.102	0.0020	mg/L	0.100	0.0009	101	75-125	1.14	20	
Arsenic, total	0.109	0.0040	mg/L	0.100	0.0097	99.1	75-125	2.86	20	



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HI1119 - EPA 3005A Total Recoverable Metals - EPA 6020A</b>										
<b>Matrix Spike Dup (1HI1119-MSD1)</b>										
Source: 1HI1410-24			Prepared: 09/20/24 11:30 Analyzed: 09/24/24 21:38							
Barium, total	0.195	0.0040	mg/L	0.100	0.0831	112	75-125	2.41	20	
Beryllium, total	0.0951	0.0040	mg/L	0.100	ND	95.1	75-125	4.20	20	
Cadmium, total	0.0979	0.0008	mg/L	0.100	ND	97.9	75-125	1.87	20	
Chromium, total	0.0938	0.0080	mg/L	0.100	0.0009	92.8	75-125	1.44	20	
Cobalt, total	0.102	0.0004	mg/L	0.100	0.0008	101	75-125	3.31	20	
Copper, total	0.0926	0.0040	mg/L	0.100	ND	92.6	75-125	0.655	20	
Lead, total	0.0928	0.0040	mg/L	0.100	ND	92.8	75-125	0.483	20	
Nickel, total	0.101	0.0040	mg/L	0.100	0.0028	98.5	75-125	1.40	20	
Selenium, total	0.0955	0.0040	mg/L	0.100	ND	95.5	75-125	2.20	20	
Silver, total	0.0969	0.0040	mg/L	0.100	ND	96.9	75-125	0.322	20	
Thallium, total	0.0950	0.0020	mg/L	0.100	ND	95.0	75-125	0.825	20	
Vanadium, total	0.100	0.0200	mg/L	0.100	ND	100	75-125	1.31	20	
Zinc, total	0.0995	0.0200	mg/L	0.100	ND	99.5	75-125	1.75	20	

<b>Post Spike (1HI1119-PS1)</b>										
Source: 1HI1410-24			Prepared: 09/20/24 11:30 Analyzed: 09/24/24 21:44							
Antimony, total	0.0827		mg/L	0.0800	0.0009	102	80-120			
Arsenic, total	0.0913		mg/L	0.0800	0.0095	102	80-120			
Barium, total	0.169		mg/L	0.0800	0.0814	110	80-120			
Beryllium, total	0.0736		mg/L	0.0800	0.00001	92.0	80-120			
Cadmium, total	0.0783		mg/L	0.0800	-0.000008	97.9	80-120			
Chromium, total	0.0773		mg/L	0.0800	0.0009	95.5	80-120			
Cobalt, total	0.0837		mg/L	0.0800	0.0008	104	80-120			
Copper, total	0.0751		mg/L	0.0800	0.0007	92.9	80-120			
Lead, total	0.0752		mg/L	0.0800	0.00002	94.0	80-120			
Nickel, total	0.0839		mg/L	0.0800	0.0027	102	80-120			
Selenium, total	0.0762		mg/L	0.0800	-0.0002	95.2	80-120			
Silver, total	0.0793		mg/L	0.0800	0.0001	98.9	80-120			
Thallium, total	0.0774		mg/L	0.0800	0.00003	96.7	80-120			
Vanadium, total	0.0825		mg/L	0.0800	0.0031	99.3	80-120			
Zinc, total	0.0782		mg/L	0.0800	0.0046	92.0	80-120			

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

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B4I1267 - 5021 - EPA RSK-175</b>										
<b>Blank (B4I1267-BLK1)</b>										
			Prepared: 09/26/24 10:39 Analyzed: 09/26/24 12:06							
Methane	<5.00	5.00	ug/L							
Ethene	<5.00	5.00	ug/L							
Ethane	<5.00	5.00	ug/L							

<b>LCS (B4I1267-BS1)</b>										
			Prepared: 09/26/24 10:39 Analyzed: 09/26/24 12:46							



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1H11410

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B4I1267 - 5021 - EPA RSK-175</b>										
<b>LCS (B4I1267-BS1)</b>										
				Prepared: 09/26/24 10:39 Analyzed: 09/26/24 12:46						
Methane	105	5.00	ug/L	114.1884		92.3	85-115			
Ethene	188	5.00	ug/L	199.6873		94.2	85-115			
Ethane	199	5.00	ug/L	213.9965		93.2	85-115			
<b>Batch B4I1394 - 5021 - EPA RSK-175</b>										
<b>Blank (B4I1394-BLK1)</b>										
				Prepared: 09/30/24 10:40 Analyzed: 09/30/24 11:42						
Methane	<5.00	5.00	ug/L							
Ethene	<5.00	5.00	ug/L							
Ethane	<5.00	5.00	ug/L							
<b>LCS (B4I1394-BS1)</b>										
				Prepared: 09/30/24 10:40 Analyzed: 09/30/24 12:11						
Methane	105	5.00	ug/L	114.1884		92.0	85-115			
Ethene	195	5.00	ug/L	199.6873		97.7	85-115			
Ethane	206	5.00	ug/L	213.9965		96.4	85-115			
<b>LCS Dup (B4I1394-BSD1)</b>										
				Prepared: 09/30/24 10:40 Analyzed: 09/30/24 12:37						
Methane	121	5.00	ug/L	114.1884		106	85-115	14.1	40	
Ethene	224	5.00	ug/L	199.6873		112	85-115	13.9	40	
Ethane	237	5.00	ug/L	213.9965		111	85-115	14.1	40	

Definitions

- A8:** Sample was received in an improper container.
- D3:** Dilution was performed due to high target analyte concentration.
- H4:** The test was performed outside of the EPA recommended holding time of 15 minutes.
- M1:** Matrix spike recovery is above acceptance limits.
- M6:** Matrix spike recovery is outside of acceptance limits. The analyte concentration is greater than 4X the spiking level.
- MDL:** Minimum Detection Limit
- 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		





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HI1410

**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:**

A rectangular box containing a handwritten signature in black ink that reads "Heather Murphy".

Heather Murphy  
Customer Relationship Specialist  
heather.murphy@microbac.com  
10/03/24 16:24

# CHAIN OF CUSTODY RECORD



600 East 17th Street Sout  
 Newton, IA 50208  
 541-792-8451



HLW Engineering  
 PM: Heather Murphy

**SITE INFORMATION**

Sampler: TODD WHIPPLE  
 Project: SCILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
 HI W Engineering  
 PO Box 214  
 Story City, IA 50246

Marcia Beeler  
 South Central Iowa Landfill  
 2520 State Hwy 02  
 Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1HI1410  
 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	TILE 2	Aqueous	GRAB	9/18/24	12:37	7	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>05</u>
-001	MW-11C	Aqueous	GRAB	9/18/24	10:04	7	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>06</u>
-001	MW-39D	Aqueous	GRAB	9/18/24	8:05	1	Indfil-app1-metals-6020	<u>07</u>
-001	MW-41D	Aqueous	GRAB	9/18/24	8:25	1	Indfil-app1-metals-6020	<u>08</u>
-001	MW-42D	Aqueous	GRAB	9/18/24	8:45	1	Indfil-app1-metals-6020	<u>09</u>
-001	MW-17R	Aqueous	GRAB	9/18/24	16:41	7	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>10</u>
-001	MW-28	Aqueous	GRAB	9/18/24	14:48	7	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>11</u>

Relinquished By [Signature] Date/Time 9/19/24

Relinquished By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received for Lab By [Signature] Date/Time 9-19-24 10:30

Remarks: \_\_\_\_\_

CHAIN OF CUSTODY RECORD



600 East 17th Street South  
 Newton, IA 50208  
 515-792-9451



HLW Engineering  
 PM: Heather Murphy

**SITE INFORMATION**

Sampler: TODD WHIPPLE

Project: SCILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
 HIW Engineering  
 PO Box 214  
 Story City, IA 50246

Marcia Beeler  
 South Central Iowa Landfill  
 2520 State Hwy 02  
 Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1H1410

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-8B	Aqueous	GRAB	<u>9/18/24</u>	<u>16:14</u>	<u>11</u>	alk-caco3-2320 Indfill-app1-voc-group Indfill-app1-metals-6020 permgas-rsk-175 ph-4500	<u>12</u>
-001	MW-9AR	Aqueous	GRAB	<u>9/18/24</u>	<u>13:49</u>	<u>11</u>	alk-caco3-2320 Indfill-app1-voc-group Indfill-app1-metals-6020 permgas-rsk-175 ph-4500	<u>13</u>
-001	MW-14D	Aqueous	GRAB	<u>9/18/24</u>	<u>12:47</u>	<u>8</u>	8270-110 Indfill-app1-voc-group Indfill-app1-metals-6020	<u>14</u>
-001	MW-15R	Aqueous	GRAB	<u>9/18/24</u>	<u>14:26</u>	<u>11</u>	alk-caco3-2320 Indfill-app1-voc-group Indfill-app1-metals-6020 permgas-rsk-175 ph-4500	<u>15</u>
-001	SW-1 <u>DRY</u>	Aqueous	GRAB	<u>9/18/24</u>	<u>                    </u>	<u>                    </u>	Indfill-app1-voc-group	<u>EE and 16</u>
-001	SW-2B	Aqueous	GRAB	<u>9/18/24</u>	<u>15:12</u>	<u>6</u>	Indfill-app1-voc-group	<u>17/10</u>

Relinquished By Todd Whipple Date/Time 9/19/24

Relinquished By                      Date/Time                     

Received By                      Date/Time                     

Received for Lab By                      Date/Time                     

Remarks:



600 East 17th Street South  
 Newton, IA 50208  
 541-792-8451



1 H I 1 4 1 0

HLW Engineering  
 PM: Heather Murphy

**SITE INFORMATION**

Sampler: TODD WHIPPLE  
 Project: SCILA - New Regs  
6022

**REPORT TO**

Todd Whipple  
 HLW Engineering  
 PO Box 314  
 Story City, IA 50246

Marcia Beeler  
 South Central Iowa Landfill  
 2520 State Hwy 02  
 Winterset, IA 50275

**SPECIAL INSTRUCTIONS**

None

**Turn Around Time**

Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1HI1410  
 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	SW-102	Aqueous	GRAB	9/18/24	15:00	6	lndfill-app1-voc-group	17
-001	Duplicate ✓	Aqueous	GRAB	9/18/24	✓	1	lndfill-app1-metals-6020	18
-001	GU-2	Aqueous	GRAB	9/18/24	9:48	7	lndfill-app1-voc-group lndfill-app1-metals-6020	19
-001	GU-A	Aqueous	GRAB	9/18/24	9:34	7	lndfill-app1-voc-group lndfill-app1-metals-6020	20
-001	GU-B	Aqueous	GRAB	9/18/24	9:25	7	lndfill-app1-voc-group lndfill-app1-metals-6020	21
-001	MW-44	Aqueous	GRAB	9/18/24	14:10	8	8270-110 lndfill-app1-voc-group lndfill-app1-metals-6020	22
-001	MW-45A	Aqueous	GRAB	9/18/24	9:03	7	lndfill-app1-voc-group lndfill-app1-metals-6020	23

Relinquished By Todd Whipple Date/Time 9/19/24

Relinquished By [Signature] Date/Time 9-18-24 10:30

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Received for Lab By \_\_\_\_\_ Date/Time \_\_\_\_\_

Remarks:

# CHAIN OF CUSTODY RECORD



600 East 17th Street South  
 Newton, IA 50208  
 515-792-9451



1 H I 1 4 1 0

HLW Engineering  
 PM: Heather Murphy

Page 5 of  
 Date: 9/19/24 8:31:04A

www.keystonelabs.com

Page 76 of 77

### SITE INFORMATION

Sampler: Todd Whipple  
 Project: SOILA - New Regs  
6022

### REPORT TO

Todd Whipple  
 HIW Engineering  
 PO Box 314  
 Story City, IA 50246

Marcia Beeler  
 South Central Iowa Landfill  
 2520 State Hwy 92  
 Winterset, IA 50275

### SPECIAL INSTRUCTIONS

None

### Turn Around Time

Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

### LAB USE ONLY

Work Order HI1410  
 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-38A <u>DKY</u>	Aqueous	GRAB	<u>9/18/24</u>	<u>          </u>	<u>          </u>	Indfill-app1-voc-group    Indfill-app1-metals-6020	<u>          </u>
-001	MW-45D	Aqueous	GRAB	<u>9/18/24</u>	<u>9:13</u>	<u>7</u>	Indfill-app1-voc-group    Indfill-app1-metals-6020	<u>24</u>
-001	MW-31	Aqueous	GRAB	<u>9/18/24</u>	<u>13:17</u>	<u>6</u>	Indfill-app1-voc-group	<u>25</u>

Todd Whipple 9/19/24  
 Relinquished By                      Date/Time

Dan White 9-19-24 10:30  
 Relinquished By                      Date/Time

\_\_\_\_\_  
 Received By                      Date/Time

\_\_\_\_\_  
 Received for Lab By                      Date/Time

Original - Lab Copy    Yellow - Sampler Copy

Remarks:

CHAIN OF CUSTODY RECORD



600 East 17th Street South  
 Newton, IA 50208  
 641-792-9454



1 H I 1 4 1 0

HLW Engineering  
 PM: Heather Murphy

SITE INFORMATION

Sampler: TODD WHIPPLE  
 Project: SCILA - New Regs  
6022

REPORT TO

Todd Whipple  
 HIW Engineering  
 PO Box 314  
 Story City, IA 50246

Marcia Beeler  
 South Central Iowa Landfill  
 2520 State Hwy 02  
 Winterset, IA 50275

SPECIAL INSTRUCTIONS

None

Turn Around Time

Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

LAB USE ONLY

Work Order HI1410  
 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-4 <u>BROKEN</u>	Aqueous	GRAB	<u>9/18/24</u>	<u>                    </u>	<u>                    </u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>                    </u>
-001	MW-18	Aqueous	GRAB	<u>9/18/24</u>	<u>11:55</u>	<u>7</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>01</u>
-001	GU-1 <u>DRY</u>	Aqueous	GRAB	<u>9/18/24</u>	<u>                    </u>	<u>                    </u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>                    </u>
-001	MW-1R <u>DRY</u>	Aqueous	GRAB	<u>9/18/24</u>	<u>                    </u>	<u>                    </u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>                    </u>
-001	MW-6A	Aqueous	GRAB	<u>9/18/24</u>	<u>17:04</u>	<u>7</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>02</u>
-001	MW-21	Aqueous	GRAB	<u>9/18/24</u>	<u>15:53</u>	<u>7</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>03</u>
-001	TILE-1	Aqueous	GRAB	<u>9/18/24</u>	<u>13:34</u>	<u>7</u>	Indfill-app1-voc-group	Indfill-app1-metals-6020	<u>04</u>

Relinquished By Todd Whipple Date/Time 9/19/24

Relinquished By \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Received for Lab By Todd Whipple Date/Time 9-19-24 10:30

Remarks:





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HL0893

Project Description

6022

For:

Todd Whipple

**HLW Engineering**

204 West Broad St

Story City, IA 50248

---

Heather Murphy

Customer Relationship Specialist

Monday, December 23, 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 Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | [www.microbac.com](http://www.microbac.com)





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HL0893

**HLW Engineering**

Todd Whipple  
204 West Broad St  
Story City, IA 50248

**Project Name: 6022**

Project / PO Number: N/A  
Received: 12/11/2024  
Reported: 12/23/2024

---

**Sample Summary Report**

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-45D	1HL0893-01	Aqueous	GRAB		12/09/24 11:43	12/11/24 09:50



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HL0893

Analytical Testing Parameters

Client Sample ID:	MW-45D	Collected By:	JGH
Sample Matrix:	Aqueous	Collection Date:	12/09/2024 11:43
Lab Sample ID:	1HL0893-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 8260D</b>								
Acetone	10.0	10.0	ug/L	1		12/18/24 0000	12/18/24 1826	CSM
Surrogate: Dibromofluoromethane	95.7	Limit: 57-134	% Rec	1		12/18/24 0000	12/18/24 1826	CSM
Surrogate: 1,2-Dichloroethane-d4	107	Limit: 53-140	% Rec	1		12/18/24 0000	12/18/24 1826	CSM
Surrogate: Toluene-d8	92.3	Limit: 86-114	% Rec	1		12/18/24 0000	12/18/24 1826	CSM
Surrogate: 4-Bromofluorobenzene	95.6	Limit: 78-121	% Rec	1		12/18/24 0000	12/18/24 1826	CSM



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HL0893

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1HL1102	1HL1102-BS1	
		1HL1102-BLK1	
		1HL0893-01	MW-45D
		1HL1102-MS1	1HL1223-01
		1HL1102-MSD1	1HL1223-01

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
<b>Batch 1HL1102 - EPA 5030B - EPA 8260D</b>										
<b>Blank (1HL1102-BLK1)</b>				Prepared: 12/18/24 00:00 Analyzed: 12/18/24 15:44						
Acetone	<10.0	10.0	ug/L							
Surrogate: Dibromofluoromethane	46.6		ug/L	50.2		92.9	57-134			
Surrogate: 1,2-Dichloroethane-d4	51.6		ug/L	50.4		102	53-140			
Surrogate: Toluene-d8	46.7		ug/L	50.5		92.5	86-114			
Surrogate: 4-Bromofluorobenzene	49.7		ug/L	50.2		99.1	78-121			
<b>LCS (1HL1102-BS1)</b>				Prepared: 12/18/24 00:00 Analyzed: 12/18/24 13:16						
Acetone	116.1	10.0	ug/L	100		116	45-153			
Surrogate: Dibromofluoromethane	46.4		ug/L	50.2		92.5	57-134			
Surrogate: 1,2-Dichloroethane-d4	50.6		ug/L	50.4		100	53-140			
Surrogate: Toluene-d8	49.0		ug/L	50.5		97.1	86-114			
Surrogate: 4-Bromofluorobenzene	49.4		ug/L	50.2		98.4	78-121			
<b>Matrix Spike (1HL1102-MS1)</b>				Source: 1HL1223-01 Prepared: 12/18/24 00:00 Analyzed: 12/19/24 12:17						
Acetone	1075	100	ug/L	1000	105.6	96.9	27-173			
Surrogate: Dibromofluoromethane	475		ug/L	502		94.5	57-134			
Surrogate: 1,2-Dichloroethane-d4	517		ug/L	504		103	53-140			
Surrogate: Toluene-d8	491		ug/L	505		97.2	86-114			
Surrogate: 4-Bromofluorobenzene	495		ug/L	502		98.7	78-121			
<b>Matrix Spike Dup (1HL1102-MSD1)</b>				Source: 1HL1223-01 Prepared: 12/18/24 00:00 Analyzed: 12/19/24 12:40						
Acetone	1132	100	ug/L	1000	105.6	103	27-173	5.15	30	
Surrogate: Dibromofluoromethane	464		ug/L	502		92.4	57-134			
Surrogate: 1,2-Dichloroethane-d4	510		ug/L	504		101	53-140			
Surrogate: Toluene-d8	492		ug/L	505		97.4	86-114			
Surrogate: 4-Bromofluorobenzene	498		ug/L	502		99.2	78-121			

Definitions

- RL: Reporting Limit
- RPD: Relative Percent Difference



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HL0893

Cooler Receipt Log

Cooler ID: Default Cooler

Temp: 0.0°C

Cooler Inspection Checklist

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

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <<https://www.microbac.com/standard-terms-conditions>>.

Reviewed and Approved By:

Heather Murphy  
Customer Relationship Specialist  
heather.murphy@microbac.com  
12/23/24 13:12

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1 H L 0 8 9 3

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PAGE 1 OF 1

**PRINT OR TYPE INFORMATION BELOW**

SAMPLER: <u>LC14</u> SITE NAME: <u>SCILA</u> ADDRESS: _____ CITY/ST/ZIP: _____ PHONE: _____	<b>REPORT TO:</b> NAME: <u>TODD WHIPPLE</u> COMPANY NAME: <u>HLW ENGINEERING</u> ADDRESS: <u>PO BOX 314</u> CITY/ST/ZIP: <u>STORY CITY IA 50248</u> PHONE: <u>515-733-4144</u> FAX: <u>515-733-4144</u>	<b>BILL TO:</b> NAME: <u>MARCIA BEELEW</u> COMPANY NAME: <u>SCILA</u> ADDRESS: <u>2520 HWY 92</u> CITY/ST/ZIP: <u>WINTERSET, IA 50273</u> PHONE: _____ Keystone Quote No: _____ (If Applicable)
---	---	---

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED										LAB USE ONLY		
							1	2	3	4	5	6	7	8	9	10	11	12	LABORATORY WORK ORDER NO.
MW 45D	12/9/29	11:43		3	WATER G	X												1HL0893	01

Relinquished by: (Signature) <u>[Signature]</u>	Date 12/11/24	Received by: (Signature) <u>[Signature]</u>	Date 12-11-24	Turn-Around: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Relinquished by: (Signature)	Date	Received for Lab by: (Signature)	Date 12-11-24	Remarks:
	Time		Time 7:50	

## Appendix E

### Field Turbidity (NTU) Summary

**South Central Iowa Landfill - SCILA**

Project Number: 6022

Field Turbidity Over Time

No-Purge Sampling																													
Well	9/23/14	12/2/14	3/19/15	6/17/15	8/27/15	2/11/16	3/4/16	5/10/16	9/20/16	11/9/16	3/9/17	6/6/17	7/12/17	9/14/17	12/13/17	3/12/18	6/6/18	6/11/18	9/10/18	11/14/18	3/26/19	6/5/19	9/16/19	12/2/19	Max	Min	Ave	Std Dev	Mean + 2 STD
	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU					
GU-1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry			Dry		Dry		Dry		0.00	0.00	0.00	0.00	0.00
MW-4A	3.29	4.68	2.45	16.55	1.47		3.52		2.11		9.51			0.55	0.68				0.86		0.81		4.98		16.55	0.55	3.96	4.52	13.00
MW-18	2.94	101.00	24.04	129.1	10.14		160		3.19		16.63		2.31	67.64	6.38	10.13			4.23		34.98		5.05		160.00	2.31	38.52	51.53	141.59
MW-9AR	3.55		17.77		0.65		3.11		1.39		1.22				6.2	2.23	18.9				1.35		5.66		18.90	0.65	5.51	6.24	18.00
MW-15R																						1.89	1.92	1.63	1.92	1.63	1.81	0.16	2.13
MW-8B	5.65		1.97		0.75		3		2.87		3.91			2.44		3.3			5.95		10.81		7.37		10.81	0.75	4.37	2.88	10.12
MW-21	112.2		0.56		19.38		2.35		0.82		5.71			0.61		8.11			0.86		0.56		0.63		112.20	0.56	13.80	33.13	80.06
MW-17R	43.31		0.40		13.08		1.32		4.55		0.46			1.04	9.7	0.81			0.5		1.45		0.55		43.31	0.40	6.43	12.33	31.09
MW-6A	1.1		3.85		0.5		2.95		0.46		4.77			14.09	23.8	4.22			2.5	0.83	1.05		0.77		23.80	0.46	4.68	6.80	18.28
MW-11C	2.09		2.53						0.99		13.57			1.56		6.48			0.5		0.82		1.07		13.57	0.50	3.29	4.26	11.80
MW-14D							1.91		0.79		1.17			0.92		1.64	>1000*	242	0.66		0.96		0.95		242.00	0.66	27.89	80.29	188.47
MW-28						94.03	159.6	1.29	1.55					12.74		41.59			6.24		89.13		1.74		159.60	1.29	45.32	56.69	158.70
TILE 1									11.35					376.9					5.05		3.18	6.2	5.18		376.90	3.18	70.32	138.32	346.95
TILE 2																			17.23		5.5	3.67	34.13		34.13	3.67	15.13	14.02	43.17
MW-31							0.16		4.27					38.93		833.5*			>1000*		120.6		19.38		120.60	0.16	36.67	49.32	135.31
MW-32							0.29		1.64					1.55		0.57			2.59		1.07		1.27		2.59	0.29	1.28	0.76	2.80
SW-1	3.36		2.81		9.82		4.28		8.93		8.55					0.83			2.64		4.88		20.38		20.38	0.83	6.65	5.69	18.03
SW-2B	1.32		1.69		5.78		4.22		8.25		4.76					5.82			5.19		3.73	5.84	8.66		8.66	1.32	5.02	2.30	9.62
SW-102	11.44		0.59		87.47		4.21	49.66	243.00					23.80		34.97			2.46		10.14		2.67		243.00	0.59	42.76	71.49	185.74
<b>Max</b>	<b>145.30</b>	<b>101.00</b>	<b>26.32</b>	<b>129.10</b>	<b>87.47</b>	<b>94.03</b>	<b>594.80</b>	<b>49.66</b>	<b>243.00</b>	<b>4.94</b>	<b>16.63</b>	<b>0.79</b>	<b>2.31</b>	<b>376.90</b>	<b>23.80</b>	<b>84.36</b>	<b>18.90</b>	<b>242.00</b>	<b>17.23</b>	<b>0.83</b>	<b>120.60</b>	<b>6.20</b>	<b>34.13</b>	<b>1.63</b>					
<b>Min</b>	<b>1.10</b>	<b>2.54</b>	<b>0.08</b>	<b>2.36</b>	<b>0.08</b>	<b>1.65</b>	<b>0.16</b>	<b>1.29</b>	<b>0.46</b>	<b>4.94</b>	<b>0.46</b>	<b>0.79</b>	<b>2.31</b>	<b>0.55</b>	<b>2.67</b>	<b>0.40</b>	<b>18.90</b>	<b>242.00</b>	<b>0.45</b>	<b>0.83</b>	<b>0.56</b>	<b>1.89</b>	<b>0.55</b>	<b>1.63</b>					
<b>Median</b>	<b>6.72</b>	<b>10.59</b>	<b>2.53</b>	<b>16.55</b>	<b>5.78</b>	<b>47.84</b>	<b>3.11</b>	<b>4.79</b>	<b>3.03</b>	<b>4.94</b>	<b>5.71</b>	<b>0.79</b>	<b>2.31</b>	<b>3.81</b>	<b>6.38</b>	<b>3.76</b>	<b>18.90</b>	<b>242.00</b>	<b>2.48</b>	<b>0.83</b>	<b>2.32</b>	<b>4.76</b>	<b>4.98</b>	<b>1.63</b>					
<b>Average</b>	<b>26.33</b>	<b>31.18</b>	<b>6.79</b>	<b>35.92</b>	<b>12.52</b>	<b>47.84</b>	<b>48.40</b>	<b>15.13</b>	<b>16.86</b>	<b>4.94</b>	<b>7.23</b>	<b>0.79</b>	<b>2.31</b>	<b>29.28</b>	<b>9.75</b>	<b>11.56</b>	<b>18.90</b>	<b>242.00</b>	<b>3.48</b>	<b>0.83</b>	<b>17.56</b>	<b>4.40</b>	<b>7.04</b>	<b>1.63</b>					

\* = mechanically induced turbidity





## Appendix F

### Summary of Prediction Limit Exceedances

**2008†**

		3/25/08	5/30/08	7/17/08	9/11/08	12/20/08
MW-8B	Barium		X	X	X	X
MW-8B	Cobalt		X	X	X	X
MW-9A	Barium	X	X	X	X	X
MW-9A	Cobalt	X				
MW-9A	Nickel	X				
MW-9A	Zinc			X		
MW-9A	1,1DCA	X	X	X	X	X
MW-9A	1,4-dichlorobenzene	X	X	X	X	X
MW-9A	acetone	X		X	X	
MW-9A	mek			X	X	
MW-9A	mibk			X	X	
MW-9A	benzene	X	X	X	X	X
MW-9A	chlorobenzene	X	X	X	X	X
MW-9A	cis-1,2-DCE	X	X	X	X	X
MW-9A	ethylbenzene			X	X	
MW-9A	PCE	X	X	X	X	
MW-9A	toluene			X	X	X
MW-9A	trans-1,2-DCE	X	X	X	X	X
MW-9A	TCE	X	X	X	X	X
MW-9A	Vinyl chloride	X	X	X	X	X
MW-9A	xylenes			X	X	

**2009†**

		4/22/09	6/8/09	8/13/09	10/23/09
MW-8B	Barium	X			X
MW-8B	Cobalt	X			X
MW-8B	cis-1,2-DCE	X			
MW-9A	Barium	X	X		X
MW-9A	Zinc				X
MW-9A	1,1DCA	X	X		X
MW-9A	1,2-dichloropropane	X			
MW-9A	1,4-dichlorobenzene	X	X		X
MW-9A	benzene	X	X		X
MW-9A	chlorobenzene	X	X		X
MW-9A	cis-1,2-DCE	X	X		X
MW-9A	PCE	X			X
MW-9A	trans-1,2-DCE	X	X		X
MW-9A	TCE	X	X		X
MW-9A	Vinyl chloride	X	X		X
MW-14	chlorobenzene				X
MW-14	cis-1,2-DCE				X
MW-14	Vinyl chloride				X
MW-15	Zinc			X	X
MW-17	cis-1,2-DCE		X	X	X

**2010†**

		1/27/10	3/19/10	6/17/10	9/14/10
MW-8B	Barium	X	X		X
MW-8B	Cobalt	X	X		X
MW-8B	cis-1,2-DCE	X	X		X

MW-9A	Barium		X		X
MW-9A	Cobalt		X		X
MW-9A	nickel		X		X
MW-9A	Zinc		X		
MW-9A	1,1DCA		X		X
MW-9A	1,4-dichlorobenzene				X
MW-9A	benzene		X		X
MW-9A	Bis(2EHP)				X
MW-9A	chlorobenzene		X		X
MW-9A	cis-1,2-DCE		X		X
MW-9A	PCE		X		X
MW-9A	trans-1,2-DCE		X		X
MW-9A	TCE		X		X
MW-9A	Vinyl chloride		X		X
MW-9A	xylenes		X		
MW-14	1,4-dichlorobenzene				X
MW-14	benzene	X	X		X
MW-14	chlorobenzene	X	X		X
MW-14	cis-1,2-DCE	X	X	X	X
MW-14	Vinyl chloride	X	X	X	X
MW-15	Zinc		X	X	X
MW-17	cis-1,2-DCE		X	X	X
MW-19	Cobalt	X	X	X	X
MW-19	Copper		X	X	X
MW-19	acetone		X		

**2011†**

		3/4/11	9/20/11
MW-9A	Barium	X	X
MW-9A	Cobalt		X
MW-9A	nickel	X	X
MW-9A	Zinc		X
MW-9A	1,1DCA	X	X
MW-9A	1,4-dichlorobenzene	X	X
MW-9A	benzene	X	X
MW-9A	chlorobenzene	X	X
MW-9A	cis-1,2-DCE	X	X
MW-9A	PCE		X
MW-9A	trans-1,2-DCE	X	X
MW-9A	TCE	X	X
MW-9A	Vinyl chloride	X	X
MW-14	1,4-dichlorobenzene		X
MW-14	benzene	X	X
MW-14	chlorobenzene	X	X
MW-14	cis-1,2-DCE	X	X
MW-14	Vinyl chloride		X
MW-15	Zinc	X	X
MW-17	cis-1,2-DCE	X	X
MW-19	Cobalt	X	
MW-19	Copper	X	

**2012†**

		3/13/12	9/19/12
MW-9A	Barium	X	X
MW-9A	nickel	X	
MW-9A	1,1DCA	X	X
MW-9A	benzene	X	X
MW-9A	chlorobenzene	X	X
MW-9A	cis-1,2-DCE	X	X
MW-9A	PCE	X	X
MW-9A	trans-1,2-DCE	X	X
MW-9A	TCE	X	X
MW-9A	Vinyl chloride	X	X
MW-14	1,4-dichlorobenzene	X	
MW-14	benzene	X	
MW-14	chlorobenzene	X	X
MW-14	cis-1,2-DCE	X	
MW-15	Zinc	X	
MW-17	cis-1,2-DCE	X	X
MW-19	acetone	X	

**2013†**

		3/25/13	7/7/13	9/20/13
MW-8B	Barium			X
MW-8B	Cobalt			X
MW-9A	Barium	X		X
MW-9A	1,1DCA	X	X	X
MW-9A	1,4-dichlorobenzene	X	X	
MW-9A	benzene	X	X	X
MW-9A	chlorobenzene	X	X	X
MW-9A	cis-1,2-DCE	X	X	X
MW-9A	PCE		X	X
MW-9A	trans-1,2-DCE	X	X	X
MW-9A	TCE	X	X	X
MW-9A	Vinyl chloride	X	X	X
MW-14	benzene	X		
MW-14	chlorobenzene	X		X
MW-14	cis-1,2-DCE	X		X
MW-17	cis-1,2-DCE	X		X
MW-19	Cobalt			X
MW-19	Copper			X

**2014†**

		3/28/14	9/23/14
MW-8B	Barium	X	X
MW-8B	Cobalt	X	X
MW-8B	cis-1,2-DCE	X	
MW-9A	Barium	X	X
MW-9A	Cobalt	X	
MW-9A	nickel	X	
MW-9A	Zinc	X	
MW-9A	1,1 DCA	X	X
MW-9A	1,1-dichloropropane	X	

MW-9A	1,4-dichlorobenzene	X	X
MW-9A	benzene	X	X
MW-9A	chlorobenzene	X	X
MW-9A	cis-1,2-DCE	X	X
MW-9A	PCE	X	
MW-9A	trans-1,2-DCE	X	X
MW-9A	TCE	X	X
MW-9A	Vinyl chloride	X	X
MW-14	chlorobenzene	X	
MW-14	cis-1,2-DCE	X	
MW-15	Zinc		X
MW-17	acetone	X	
MW-17	cis-1,2-DCE	X	X
MW-19	Arsenic	X	
MW-19	Cobalt	X	
MW-19	Copper	X	
MW-19	mek	X	
MW-19	acetone	X	
MW-19	chloroethane	X	

**2015†**

		<b>3/19/15</b>	<b>8/27/15</b>
MW-8B	Barium	X	X
MW-8B	Cobalt	X	X
MW-9A	Barium	X	X
MW-9A	Cobalt	X	
MW-9A	1,1 DCA	X	X
MW-9A	1,1-dichloropropane	X	X
MW-9A	1,4-dichlorobenzene	X	X
MW-9A	benzene	X	X
MW-9A	chlorobenzene	X	X
MW-9A	cis-1,2-DCE	X	X
MW-9A	PCE	X	
MW-9A	trans-1,2-DCE	X	X
MW-9A	TCE	X	
MW-9A	Vinyl chloride	X	X
MW-17R	cis-1,2-DCE	X	X
MW-23B	Barium		X
SW-101	Selenium		X
SW-103	cis-1,2-DCE	X	

**2016**

		<b>3/4/16†</b>	<b>9/20/2016</b>
MW-8B	Barium	X	X
MW-8B	Cobalt	X	X
MW-9A	Barium	X	X
MW-9A	1,1 DCA	X	X
MW-9A	1,4-dichlorobenzene	X	X
MW-9A	benzene	X	X
MW-9A	chlorobenzene	X	X
MW-9A	cis-1,2-DCE	X	X
MW-9A	PCE	X	
MW-9A	trans-1,2-DCE	X	X
MW-9A	TCE	X	X
MW-9A	Vinyl chloride	X	X
MW-15	zinc		X
MW-17R	cis-1,2-DCE	X	X
MW-17R	Barium		X
SW-101	Selenium	X	X

† Predates paring of the historic background data and the results included herein are considered informational and should not be considered conclusive.

**2017**

		<b>3/9/2017</b>	<b>9/14/2017</b>
MW-8B	Barium	X	X
MW-8B	Cobalt	X	X
MW-8B	Nickel	X	
MW-9A	Barium	X	X
MW-9A	1,1 DCA	X	X
MW-9A	1,2-DCP	X	
MW-9A	1,4-dichlorobenzene	X	
MW-9A	benzene	X	X
MW-9A	chlorobenzene	X	X
MW-9A	cis-1,2-DCE	X	X
MW-9A	PCE		
MW-9A	trans-1,2-DCE	X	X
MW-9A	TCE	X	
MW-9A	Vinyl chloride	X	X
MW-15	Barium		X
MW-15	Benzene		X
MW-17R	cis-1,2-DCE	X	X
MW-17R	Barium	X	X

Spring 2018		Fall 2018	
Till/Fill System			
MW-6A	None	MW-6A	Nickel
MW-8B	Barium Cobalt	MW-8B	Barium Cobalt
MW-9AR	Barium Cobalt Nickel 1,1-dichloroethane 1,2-dichloropropane Benzene Chlorobenzene <b>cis-1,2-dichloroethene (exceeds GWPS)</b> trans-1,2-dichloroethene trichlorethylene <b>Vinyl chloride (exceeds GWPS)</b>	MW-9AR	Barium Cobalt Nickel 1,1-dichloroethane 1,4-dichlorobenzene Benzene Chlorobenzene Chloroethane cis-1,2-dichloroethene trans-1,2-dichloroethene trichlorethylene <b>Vinyl chloride (exceeds GWPS)</b>
MW-15	Barium	MW-15	Broken
Exline Bedrock System			
MW-14D	Antimony Selenium	MW-14D	Antimony Selenium
MW-17R	Barium cis-1,2-dichloroethene trans-1,2-dichloroethene	MW-17R	Barium cis-1,2-dichloroethene

Spring 2019		Fall 2019	
Till/Fill System			
MW-6A	Bis (2-ethylhexyl)phthalate*	MW-6A	None
MW-8B	Barium	MW-8B	Barium
	Cobalt		Cobalt
MW-9AR	Barium	MW-9AR	Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,1-dichloroethane		1,1-dichloroethane
	1,4-dichlorobenzene		Benzene
	Benzene		Chlorobenzene
	Chlorobenzene		cis-1,2-dichloroethene
	Chloroethane		trans-1,2-dichloroethene
	cis-1,2-dichloroethene		<b>Vinyl chloride (exceeds GWPS)</b>
	trans-1,2-dichloroethene		
	trichlorethylene		
	<b>Vinyl chloride (exceeds GWPS)</b>		
MW-15R	None	MW-15R	Barium
Exline Bedrock System			
MW-14D	Antimony	MW-14D	Antimony
	Selenium		Selenium
MW-17R	Barium	MW-17R	Barium
	Nickel		Nickel
	cis-1,2-dichloroethene		cis-1,2-dichloroethene

\* not verified by the 6/5/2019 resample



Spring 2020		Fall 2020	
Till/Fill System			
MW-6A	Bis(2-ethylhexyl)phthalate	MW-6A	None
MW-15R	Barium	MW-15R	Barium
Tile 1	1,4-dichlorobenzene	Tile 1	Barium
	chlorobenzene		Nickel
	cis-1,2-dichloroethene		1,4-dichlorobenzene
			Benzene
			chlorobenzene
			cis-1,2-dichloroethene
			Vinyl Chloride
Tile 2	chlorobenzene	Tile 2	Barium
	cis-1,2-dichloroethene		Cobalt
	Vinyl Chloride		chlorobenzene
			cis-1,2-dichloroethene
			Vinyl Chloride
MW-8B	Barium	MW-8B	Barium
	Cobalt		Cobalt
MW-9AR	Barium	MW-9AR	Barium
	Cobalt		Cobalt
	Nickel		Nickel
	1,1-dichloroethane		1,1-dichloroethane
	Benzene		Benzene
	Carbon disulfide		Chlorobenzene
	Chlorobenzene		cis-1,2-dichloroethene
	cis-1,2-dichloroethene		trans-1,2-dichloroethene
	trans-1,2-dichloroethene		trichlorethylene
	trichlorethylene		Vinyl Chloride
	Vinyl Chloride		
Exline Bedrock System			
MW-14D	Antimony	MW-14D	Antimony
	Selenium		Selenium
MW-17R	Barium	MW-17R	Barium
	cis-1,2-dichloroethene		Nickel
			cis-1,2-dichloroethene
MW-28	cis-1,2-dichloroethene	MW-28	Barium
			Cobalt
			Nickel
			cis-1,2-dichloroethene
			trans-1,2-dichloroethene
			Vinyl Chloride

Spring 2021		Fall 2021	
Till/Fill System			
MW-6A	Cobalt	MW-6A	None
	Nickel		
MW-15R	Arsenic	MW-15R	Arsenic
	Barium		Barium
Tile 1	Barium	Tile 1	Barium
	Nickel		Nickel
	1,4-dichlorobenzene		1,4-dichlorobenzene
	chlorobenzene		Benzene
			chlorobenzene
			cis-1,2-dichloroethene
Tile 2	cis-1,2-dichloroethene	Tile 2	cis-1,2-dichloroethene
	Vinyl Chloride		Vinyl Chloride
MW-8B	Barium	MW-8B	Barium
	Cobalt		Cobalt
MW-9AR	Barium	MW-9AR	Barium
	Cobalt		Cobalt
	1,1-dichloroethane		Nickel
	Benzene		1,1-dichloroethane
	Chlorobenzene		1,2-dichloropropane
	cis-1,2-dichloroethene		Benzene
	trans-1,2-dichloroethene		Chlorobenzene
	trichlorethylene		cis-1,2-dichloroethene
	Vinyl Chloride		trans-1,2-dichloroethene
			trichlorethylene
			Vinyl Chloride
Exline Bedrock System			
MW-14D	Antimony	MW-14D	Antimony
	Selenium		
MW-17R	Barium	MW-17R	Barium
	Nickel		Nickel
	cis-1,2-dichloroethene		cis-1,2-dichloroethene
MW-28	Arsenic	MW-28	Barium
	Barium		Cobalt
	Cobalt		Nickel
	Nickel		cis-1,2-dichloroethene
	cis-1,2-dichloroethene		Vinyl Chloride

Spring 2022		Fall 2022	
Till/Fill System			
MW-6A	Antimony	MW-6A	Nickel
	Nickel		
	Selenium		
MW-15R	Arsenic	MW-15R	Arsenic
	Barium		Barium
Tile 1	Barium	Tile 1	Barium
	1,4-dichlorobenzene		Cobalt
	chlorobenzene		Nickel
			1,4-dichlorobenzene
			Benzene
			chlorobenzene
Tile 2	cis-1,2-dichloroethene	Tile 2	Barium
	Vinyl Chloride		cis-1,2-dichloroethene
			Vinyl Chloride
MW-8B	Barium	MW-8B	Barium
	Cobalt		Cobalt
MW-9AR	1,1-dichloroethane	MW-9AR	Barium
	1,2-dichloropropane		Nickel
	cis-1,2-dichloroethene		1,1-dichloroethane
	trans-1,2-dichloroethene		Benzene
	trichlorethylene		Chlorobenzene
	Vinyl Chloride		cis-1,2-dichloroethene
			trans-1,2-dichloroethene
			trichlorethylene
			Vinyl Chloride
MW-31	1,4-dichlorobenzene		
	Benzene		
	chlorobenzene		
MW-32	chlorobenzene		
	cis-1,2-dichloroethene		
Exline Bedrock System			
MW-14D	none	MW-14D	Cobalt
MW-17R	Barium	MW-17R	Barium
	Nickel		Cobalt
	bis(2-ethylhexyl)phthalate		Nickel
	cis-1,2-dichloroethene		cis-1,2-dichloroethene
MW-28	Arsenic	MW-28	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	cis-1,2-dichloroethene		cis-1,2-dichloroethene
	Vinyl Chloride		

Spring 2023		Fall 2023	
Till/Fill System			
MW-44	did not exist	MW-44	Barium
MW-15R	Arsenic	MW-15R	Arsenic
	Barium		Barium
Tile 1	Barium	Tile 1	Barium
	1,4-dichlorobenzene		Nickel
	chlorobenzene		1,4-dichlorobenzene
			Benzene
			chlorobenzene
Tile 2	cis-1,2-dichloroethene	Tile 2	cis-1,2-dichloroethene
	Vinyl Chloride		Vinyl Chloride
MW-9AR	1,2-dichloropropane	MW-9AR	1,1-dichloroethane
	cis-1,2-dichloroethene		Benzene
	trans-1,2-dichloroethene		Chlorobenzene
	trichlorethylene		cis-1,2-dichloroethene
	Vinyl Chloride		trans-1,2-dichloroethene
			trichlorethylene
			Vinyl Chloride
MW-31	1,4-dichlorobenzene	MW-31	No test required
	Benzene		
	chlorobenzene		
Exline Bedrock System			
MW-14D	none	MW-14D	Cobalt
MW-17R	Barium	MW-17R	Barium
	Nickel		Nickel
	cis-1,2-dichloroethene		cis-1,2-dichloroethene
MW-28	Arsenic	MW-28	Arsenic
	Barium		Barium
	Cobalt		Cobalt
	Nickel		Nickel
	cis-1,2-dichloroethene		cis-1,2-dichloroethene
	Vinyl Chloride		

Spring 2024		Fall 2024	
Till/Fill System			
MW-44	Barium	MW-44	Barium
	Bis(2-ethylhexyl)phthalate		Bis(2-ethylhexyl)phthalate
Tile 1	Barium	Tile 1	Barium
	Nickel		Nickel
	1,4-dichlorobenzene		1,4-dichlorobenzene
	chlorobenzene		Benzene
			chlorobenzene
Tile 2	cis-1,2-dichloroethene	Tile 2	Barium
	Vinyl Chloride		chlorobenzene
			cis-1,2-dichloroethene
			Vinyl Chloride
Exline Bedrock System			
MW-14D	Bis(2-ethylhexyl)phthalate	MW-14D	None
MW-17R	Barium	MW-17R	Barium
	Nickel		Nickel
	cis-1,2-dichloroethene		cis-1,2-dichloroethene
MW-28	Arsenic	MW-28	Barium
	Barium		Cobalt
	Cobalt		Nickel
	Nickel		cis-1,2-dichloroethene
	cis-1,2-dichloroethene		Vinyl Chloride

## Appendix G

### Assessment Testing Results Summary

Bis(2-ethylhexyl)phthalate (green highlights = a full Appendix II sample)

Date	MW-6A	MW-14D	MW-17R	Tile 1	Tile 2	MW-28	MW-44
8/27/2015	NT	NT	NT	NT	NT	NT	NT
3/4/2016	NT	NT	< 8	NT	NT	NT	NT
9/20/2016	NT	NT	NT	NT	NT	NT	NT
3/9/2017	NT	NT	< 8	NT	NT	NT	NT
6/6/2017	NT	NT	NT	NT	NT	NT	NT
9/14/2017	NT	<6	NT	NT	NT	NT	NT
3/13/2018	NT	< 8	NT	NT	NT	NT	NT
9/10/2018	NT	NT	NT	NT	NT	NT	NT
3/26/2019	55.0	NT	NT	NT	NT	NT	NT
6/5/2019	< 6	NT	NT	NT	NT	NT	NT
9/16/2019	NT	NT	NT	NT	NT	NT	NT
3/24/2020	7.0	NT	NT	NT	NT	NT	NT
9/2/2020	NT	NT	NT	NT	NT	NT	NT
3/8/2021	< 6	NT	NT	<6	<6	<6	NT
9/14/2021	< 6	NT	NT	NT	NT	NT	NT
3/28/2022	< 6	NT	13.0	<6	<6	<6	NT
9/13/2022	NT	NT	< 6	NT	NT	NT	NT
3/23/2023	NT	NT	NT	NT	NT	NT	NT
9/5/2023	NT	NT	NT	NT	NT	NT	NT
3/6/2024	NT	10.0	NT	NT	NT	NT	14.0
9/18/2024	NT	< 6	NT	NT	NT	NT	10.0

Bis(2-ethylhexyl)phthalate (green highlights = a full Appendix II sample)

Date	MW-9A/9AR*	MW-8B*	MW-15/15R*
6/8/2009	< 8	NT	NT
10/23/2009	< 11	NT	NT
1/27/2010	NT	< 8	NT
3/19/2010	NT	< 9.5	NT
9/14/2010	<b>9.0</b>	NT	NT
3/4/2011	< 10	NT	NT
3/13/2012	< 10	NT	NT
9/19/2012	< 10	NT	NT
3/5/2013	< 10	NT	NT
9/12/2013	< 10	NT	NT
3/28/2014	< 10	NT	NT
9/23/2014	< 10	NT	NT
3/19/2015	< 10	NT	NT
8/27/2015	< 10	NT	NT
3/4/2016	< 8	< 8	NT
9/20/2016	< 10	NT	NT
3/9/2017	< 10	NT	<b>12.0</b>
6/6/2017	NT	NT	<6
9/14/2017	NT	NT	NT
3/13/2018	NT	NT	<6
9/10/2018	NT	NT	NT
3/26/2019	NT	NT	NT
6/5/2019	NT	NT	NT
9/16/2019	NT	NT	NT
3/24/2020	NT	NT	NT
9/2/2020	NT	NT	NT
3/8/2021	NT	NT	NT
9/14/2021	NT	NT	NT
3/28/2022	NT	NT	NT
9/13/2022	NT	NT	NT
3/23/2023	NT	NT	NT
9/5/2023	NT	NT	NT
3/6/2024	NT	NT	NT
9/18/2024	NT	NT	NT

\* - Supplemental wells do not require full Appendix II sampling on the five (5) year frequency.



## Appendix H

### Leachate Collection System Performance Evaluation Report

Appendix H.1 - Leachate Recirculation Volumes  
Daily/Weekly Leachate Recirculation Logs

**Leachate Recirculation  
South Central Iowa Sanitary Landfill  
2024**

February		May		June		July		August		September		October		November	
Date	Gallons	Date	Gallons	Date	Gallons	Date	Gallons	Date	Gallons	Date	Gallons	Date	Gallons	Date	Gallons
2/5/2024	75,000	5/28/2024	50,000	6/6/2024	50,000	7/9/2024	50,000	8/5/2024	50,000	9/4/2024	50,000	10/2/2024	50,000	11/4/2024	75,000
2/6/2024	75,000	5/31/2024	50,000	6/10/2024	50,000	7/11/2024	50,000	8/7/2024	50,000	9/6/2024	50,000	10/4/2024	50,000	11/5/2024	75,000
2/7/2024	75,000			6/12/2024	50,000	7/16/2024	50,000	8/9/2024	50,000	9/9/2024	50,000	10/7/2024	50,000	11/6/2024	75,000
2/8/2024	75,000			6/14/2024	50,000	7/18/2024	50,000	8/19/2024	50,000	9/11/2024	50,000	10/9/2024	50,000	11/7/2024	75,000
2/9/2024	75,000			6/18/2024	50,000	7/24/2024	50,000	8/23/2024	50,000	9/13/2024	50,000	10/11/2024	50,000	11/8/2024	75,000
				6/21/2024	50,000	7/26/2024	50,000	8/26/2024	50,000	9/16/2024	50,000			11/11/2024	75,000
				6/25/2024	50,000	7/29/2024	50,000	8/30/2024	50,000	9/18/2024	50,000			11/12/2024	75,000
				6/27/2024	50,000					9/20/2024	50,000				
										9/30/2024	50,000				
<b>TOTAL</b>	375,000		100,000		400,000		350,000		350,000		450,000		250,000		525,000

**2,800,000 Gallons**

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		2/5/24	2/6/24	2/7/24	2/8/24	2/9/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		0	1"	0	2"	3"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							
		75,000	75,000	75,000	75,000	75,000	

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date			5/28/24			5/31/24	
Liquid Level (not to exceed 12-inches)							
LW-101*			0			2"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
			50,000			50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date					6/6/24		
Liquid Level (not to exceed 12-inches)							
LW-101*					1”		
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
					50,000		
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12” leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12”.

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		6/10/24		6/12/24		6/14/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		3"		0		2"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000		50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date			6/18/24			6/21/24	
Liquid Level (not to exceed 12-inches)							
LW-101*			2"			0	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
			50,000			50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".



### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date			6/25/24		6/27/24		
Liquid Level (not to exceed 12-inches)							
LW-101*			2"		1"		
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
			50,000		50,000		
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

**SCILA Landfill – Daily/Weekly Leachate Recirculation Log**

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date			7/9/24		7/11/24		
Liquid Level (not to exceed 12-inches)							
LW-101*			0		2"		
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
			50,000		50,000		
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

**SCILA Landfill – Daily/Weekly Leachate Recirculation Log**

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date			7/16/24		7/18/24		
Liquid Level (not to exceed 12-inches)							
LW-101*			1"		2"		
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
			50,000		50,000		
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date				7/24/24		7/26/24	
Liquid Level (not to exceed 12-inches)							
LW-101*				0		2"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
				50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		7/29/24					
Liquid Level (not to exceed 12-inches)							
LW-101*		0					
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000					
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12” leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12”.

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		8/5/24		8/7/24		8/9/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		1”		2”		0	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000		50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12” leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12”.

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		8/19/24				8/23/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		2"				1"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000				50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		8/26/24				8/30/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		0				2"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000				50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".



### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date				9/4/24		9/6/24	
Liquid Level (not to exceed 12-inches)							
LW-101*				0		2"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
				50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		9/9/24		9/11/24		9/13/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		2"		1"		2"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000		50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		9/16/24		9/18/24		9/20/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		0		2”		2”	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000		50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12” leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12”.

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		9/30/24		10/2/24		10/4/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		0		0		2"	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000		50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		10/7/24		10/9/24		10/11/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		1”		2”		1”	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
		50,000		50,000		50,000	
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12” leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12”.

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		11/4/24	11/5/24	11/6/24	11/7/24	11/8/24	
Liquid Level (not to exceed 12-inches)							
LW-101*		1”	1”	2”	2”	3”	
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							
		75,000	75,000	75,000	75,000	75,000	

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12” leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12”.

### SCILA Landfill – Daily/Weekly Leachate Recirculation Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date		11/11/24	11/12/24				
Liquid Level (not to exceed 12-inches)							
LW-101*		1"	2"				
Spray Irrigation Time							
Start Time							
End Time							
Spray Irrigation Gallons							
Trench Recirculation Time							
Start Time							
End Time							
Trench Recirculation Gallons							
		75,000	75,000				

- \*NOTES:**
- 1) LW-101 measurement required at least once per week when leachate is being recirculated.
  - 2) If liquid level in LW-101 exceeds 12" leachate recirculation shall stop and not resume until the liquid level in LW-101 is less than 12".

Appendix H.2 - Authorization to Discharge at Des Moines Metropolitan  
Wastewater Reclamation Facility





**DES MOINES METROPOLITAN  
WASTEWATER RECLAMATION AUTHORITY**

**CITY OF DES MOINES, OPERATING CONTRACTOR**

October 29, 2021

Marcia Beeler  
South Central Iowa Landfill Agency  
2490 State Hwy 92  
Winterset, IA 50273

RE: Hauled Waste Discharge Permit No. B10161

Dear Ms. Beeler:

Enclosed is your Hauled Waste Discharge Permit for the South Central Iowa Landfill facility in Winterset. The permit is effective until the expiration date; however, an annual permit fee will be due.

Please keep us informed of any changes that may affect the characteristics or volume of your facility's hauled waste to the WRF. Questions should be directed to Paul Ebert, in Industrial Pretreatment, at 515/323-8133.

Sincerely,

Larry Hare  
WRF Treatment Manager  
WRA Wastewater Reclamation Facility

LH/ajf

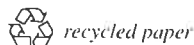
Enc: Hauled Wastewater Discharge Permit

CC: T. Whipple, HLW Engineering PO Box 314, Story City, IA 50248  
File

---

WORKING TOGETHER FOR CLEAN WATER

Phone 515/323-8000 • Fax 515/323-8050 • [www.dmmwra.org](http://www.dmmwra.org)  
3000 Vandalia Road • Des Moines, Iowa 50317-1346





**DES MOINES METROPOLITAN  
WASTEWATER RECLAMATION AUTHORITY**

**CITY OF DES MOINES, OPERATING CONTRACTOR**

**DES MOINES METROPOLITAN WASTEWATER RECLAMATION AUTHORITY  
HAULED WASTE DISCHARGE PERMIT  
PERMIT NO. B10161**

In accordance with the provisions of the Municipal Code of Des Moines, Chapter 118, Article III known as the Industrial Waste Ordinance,

South Central Iowa Landfill Agency  
2490 State Hwy 92  
Winterset, IA 50273

is hereby authorized to deliver wastewater from the RCRA Subtitle D non-hazardous landfill via a properly licensed and maintained tank truck to the Des Moines Metropolitan Wastewater Reclamation Facility in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the industrial user of its obligations to comply with all applicable pretreatment regulations, standards, requirements, or laws that are or may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of the City of Des Moines Industrial Waste Ordinance.

EFFECTIVE DATE: November 1, 2021

EXPIRATION DATE: October 31, 2025

RENEWAL DATE: July 31, 2025

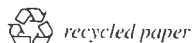
The industrial user must file an application for permit renewal 90 days prior to the expiration date.

\_\_\_\_\_  
Scott Hutchens, P.E., WRA Director  
City of Des Moines  
WRA Wastewater Reclamation Facility

REVISED: September 15, 2021

**WORKING TOGETHER FOR CLEAN WATER**

Phone 515/323-8000 • Fax 515/323-8050 • [www.dmmwra.org](http://www.dmmwra.org)  
3000 Vandalia Road • Des Moines, Iowa 50317-1346



## PART 1 - REQUIREMENTS RELATING TO TRUCKED WASTES

The Des Moines Metropolitan Wastewater Reclamation Authority (WRA) will accept process wastewater from the Industrial User (IU) under the following terms:

### A. Process Wastewater Characteristics and Volume

1. The pH of any load must not be less than 5.0 S.U. or greater than 12.0 S.U.
2. The COD of any load delivered to the headworks (Structure 07) must not exceed 100,000 mg/L.
3. The Arsenic Daily Maximum concentration of any load shall not exceed 0.38 mg/L, and the Total Daily Loading of Arsenic shall not exceed 0.014 lbs/day.
4. Total Toxic Organics (TTO) will be monitored routinely by the WRA. TTOs are sum of all volatile organic compounds detected using EPA Method 624.
5. The number of truck loads delivered to the Des Moines Metropolitan Wastewater Reclamation Facility (WRF) shall not exceed five (5) per day. The IU may request an increase in writing. The WRF reserves the right to further restrict the volume of leachate per day in order to meet pollutant loading limits for the WRF as identified in Chapter 118-343.
6. Hauled waste shall be delivered to the headworks (Structure 07) at the WRF, unless directed otherwise by WRA personnel.
7. Only landfill leachate wastewater is allowed by truck without advanced notice to and permission from the WRA Director.

### B. Treatment Charges

1. Charges must cover 150% of the costs incurred by the WRA to handle and treat the wastewater as determined by the WRA Director, as well as 100% of the costs to analyze the wastewater.
2. Charges are billed monthly with NET 30 terms payable to CITY OF DES MOINES and mailed to  

City of Des Moines Treasurer's Office  
P.O. Box 1633  
Des Moines, IA 50306-1633
3. Treatment charges for waste loads disposed of at the headworks (Structure 07) shall be \$0.0456/gallon or \$0.00545/lb. (subject to annual rate increases, given 30-days' notice).
4. Reevaluation of charges:
  - (a) Charges will be reevaluated on February 1st and annually thereafter at a minimum.
  - (b) Charges may be reevaluated at the request of the IU or by the WRA at any time due to waste characteristic changes in the process wastewater.
  - (c) Changes in treatment charges are effective after 30-days' notice to the IU.

C. Sampling & Analysis

1. WRA Sampling & Analysis

- (a) The WRA may, at a minimum, perform daily sampling and measurement of pH, O&G, COD, TSS, TKN, %TS, %VS at the cost provided for in Chapter 118-352. The cost will be assessed to the IU and included in the charges in Part 1, B.1. above.
- (b) The WRA will perform other sampling and analysis at the expense of the IU as necessary to accurately assess charges and pollutant loadings.
- (c) Samples shall be taken from the tank truck at the WRF prior to discharge or mixing with any other waste.

2. Industrial User Sampling & Analysis

- (a) The IU shall perform an annual scan of priority pollutants and report results to the WRA.
- (b) Such scan does not eliminate the need for the WRA to perform its normal sampling and analysis.
- (c) Samples shall be taken from the leachate collection vessel used to fill tank trucks for transport to the WRF.

D. Hours of Operation

- 1. The WRA will accept trucked waste 24/7 if drivers are familiar with the WRF manifesting, scaling, and unloading processes.
- 2. The WRA has the right to restrict hours as necessary and restrict truck driver access as necessary. Additional costs to provide service will be charged to the IU.

E. Termination of this Permit

- 1. This permit may be terminated by the IU by making a written request to the WRA providing 30-days' advanced notice.
- 2. This permit may be terminated by the WRA for any reason by providing 30-days' advanced written notice to the IU.
- 3. Delivery of wastes may be immediately suspended by the WRA if acceptance of this wastewater causes, or is anticipated to cause, interference, pass through of pollutants, or violation of any environmental permit held by the WRA.

F. Automatic Permit Extension

Expired permits shall remain effective and enforceable until the permit is reissued unless the IU is notified of permit termination by the WRA Director. (Chapter 118-372)

G. Damages

Anyone delivering or discharging wastes to the WRF whose waste causes upset, interference, or pass through is liable for the costs incurred by such incident and to penalties as allowed under city, state, and federal law.

H. Spill Control Plan

When required to do so by the WRA, the IU shall develop a Spill Control Plan to address potential spills or slugs.

## **PART 2 – REPORTING REQUIREMENTS**

### **A. Monitoring Reports**

The WRA will provide the IU with routine reports of the concentration of pollutants in the IU's effluent which are being monitored as described above.

#### **1. Semi-Annual Reports**

A certification statement, signed by an Authorized Representative, which uses the language required by federal law (40 CFR 403.12(l)), must be returned to the WRA every six (6) months. The industry is certifying that information it has submitted to the WRA is true and accurate. Those with TTO limits in wastewater discharge permits have an additional certifying statement regarding use and disposal of these substances. The IU shall submit a semi-annual report to the WRA as follows:

<u>Semi-Annual</u>	<u>Periods Covered</u>
1st Half	January – June
2nd Half	July - December

#### Semi-Annual Report Format

- (a) Identifying information.
- (b) Measurement of pollutants for any samples collected by the IU, per Chapter 118-377(5).
- (c) Certification and signature by IU.
- (d) Compliance schedule (as required).
- (e) Additional monitoring (as required).

#### **2. Reports - Additional Monitoring**

If the IU monitors any permitted pollutant from the sample location identified in Part 1.C more frequently than required by this permit, using test procedures prescribed in 40 CFR Part 136, the results of such monitoring shall be submitted to the WRA. Such monitoring results shall be summarized and reported to the WRA as part of the semi-annual report.

### **B. Accidental Discharge Report**

The IU shall notify the WRA immediately of all discharges that could cause problems to the POTW, including any slug loadings, as outlined in Chapter 118-349. Formal written notification discussing circumstances and remedies shall be submitted to the WRA within five (5) days of the occurrence. The following procedures shall be followed:

1. Accidental discharges that contain pollutants that exceed the permitted limit by 5x or that exceed a designated slug discharge concentration shall be reported immediately.
2. Accidental discharges that may cause permanent damage to treatment system shall be reported immediately. These discharges include, but are not limited to, pollutants that may cause a fire or explosion hazard, pH of less than 4.0 or greater than 13.0 for, any pollutant in a concentration that would increase the atmosphere in the POTW above the LC50 for human exposure, and any pollutant that may increase the concentration in the influent to the WRF enough to decrease treatment efficiency.
3. The IU shall notify the WRA immediately by telephone at 515/323-8000 or 8133. The notification shall include the name of the person making the call, telephone number where said person can be reached, location of discharge, date and time thereof, type of waste, including concentration and volume, and corrective action taken.

The party making the call shall be available by phone for a minimum of fifteen (15) minutes after the notification is made. This is so that a member of the WRA may contact the industry representative for more information, if necessary.

4. Within five (5) days following an accidental discharge, the IU shall submit to the WRA a detailed written report. The report shall specify:
  - (a) Description of the upset, slug or accidental discharge, the cause thereof, and the impact on the IU's compliance status. The description should also include location of discharge, type, concentration and volume of waste.
  - (b) Duration of noncompliance, including exact dates and times of noncompliance, and if the noncompliance continues, the time by which compliance is reasonably expected to occur.
  - (c) All steps taken or to be taken to reduce, eliminate and prevent recurrence of such a slug discharge, accidental discharge, or other condition of noncompliance.

C. Anticipated Noncompliance

The IU shall give advance notice to the WRA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

D. Signatory Requirements

1. All applications and reports submitted to the WRA must contain the following certification statement and be signed by an authorized representative of the IU as defined below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Authorized Representative means:

- (a) An executive officer of a corporation.
  - (b) A general partner of a partnership.
  - (c) The proprietor of a proprietorship.
  - (d) The conservator, trustee, attorney in fact, receiver or other person or agent authorized in law and in fact to act on behalf of IUs which are not corporations, partnerships, or proprietorships or on behalf of other entities which must legally act through an agent.
  - (e) Any other authorized representative of (a), (b), (c), or (d) above if the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the discharge originates, such as the position of plant manager or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company and the written authorization is submitted to the WRA Director.
  - (f) Any other person authorized by law to act on behalf of any entity.
2. If an authorization under paragraph (d) of this subpart is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for the environmental matters for the company, a new authorization satisfying the requirements of paragraph (d) of this subpart must be submitted to the WRA prior to or together with any reports to be signed by an authorized representative.

E. Wastewater Reclamation Authority Address and Phone Number

All reports, applications and correspondence shall be submitted to the following address:

Des Moines Metropolitan Wastewater Reclamation Authority  
Attention: Pretreatment Department  
3000 Vandalia Road  
Des Moines, IA 50317

Telephone notification shall be to WRA - 515/323-8000 or 8133.

**PART 3 - GENERAL CONDITIONS**

The EPA in 40 CFR 403 requires wastewater treatment plants with pretreatment authority to have the following authority over all dischargers:

A. Duty to Comply

You must comply with the terms, conditions, and limits of this permit and of city ordinance. (Chapters 118-321 and 118-376)

B. Duty to Mitigate

The IU shall take all reasonable steps to minimize, correct, or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting the WRF, collection system, human health or environment. (Chapter 118-349)

C. Changes Resulting in New or Increase Pollutants

New or increased contributions of pollutants or changes in the nature of pollutant discharged to the WRF, whether due to changes in production, activity, flow or construction, shall require ninety (90) days prior approval by the WRA Director. (Chapter 118-370(11))

D. Permit Transfer

The IU shall not reassign or transfer this permit. New owners must apply for a new wastewater discharge permit sixty (60) days prior to a change of ownership. (Chapter 118-374)

E. Inspection of Premises, Records, Equipment, Methods and Discharges

You must permit authorized representatives of the City of Des Moines to inspect and sample in accordance with Chapter 118-405.

F. Confidential Information

No information shall be confidential except as specified in Chapters 118-381 and 118-382.

G. Dilution

The IU shall not increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with limitations contained in this permit.

H. Annual Publication

A list of all permitted users which significantly violated pretreatment standards or requirements (including permit requirements) during the twelve (12) previous months shall be annually published in the largest daily newspaper within the service area. (Chapter 118-396)

I. Civil and Criminal Penalties

Violation of pretreatment standards and requirements, administrative orders, or compliance schedules may subject the IU to civil and criminal penalties contained in Chapter 118-400 and Iowa Code 364.22(1).



## Appendix H.3 - Leachate Testing Results



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

Project Description

SCILA - Leachate

For:

Todd Whipple

**HLW Engineering**

PO Box 314

Story City, IA 50248

---

Heather Murphy

Customer Relationship Specialist

Wednesday, March 27, 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 Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | [www.microbac.com](http://www.microbac.com)



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

**HLW Engineering**

Todd Whipple  
PO Box 314  
Story City, IA 50248

**Project Name: SCILA - Leachate**

Project / PO Number: N/A  
Received: 03/07/2024  
Reported: 03/27/2024

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**Sample Summary Report**

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
Leachate	1HC0555-01	Water	GRAB		03/07/24 00:00	03/07/24 08:30



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

Analytical Testing Parameters

Client Sample ID:	Leachate	Collected By:	JGH
Sample Matrix:	Water	Collection Date:	03/07/2024
Lab Sample ID:	1HC0555-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 5030B/EPA 624</b>								
Chloromethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Vinyl Chloride	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Bromomethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Chloroethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Methylene Chloride	<5.0	5.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
1,1-Dichloroethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Chloroform	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Carbon Tetrachloride	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Benzene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
1,2-Dichloroethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Trichloroethylene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
1,2-Dichloropropane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Bromodichloromethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
2-Chloroethylvinyl ether	<10.0	10.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Toluene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Tetrachloroethylene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Dibromochloromethane	<1.0	1.0	ug/L	1	PH-1	03/14/24 0000	03/14/24 1456	CSM
Chlorobenzene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Ethylbenzene	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Bromoform	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		03/14/24 0000	03/14/24 1456	CSM
Surrogate: Dibromofluoromethane	104	Limit: 79-129	% Rec	1		03/14/24 0000	03/14/24 1456	CSM
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 66-134	% Rec	1		03/14/24 0000	03/14/24 1456	CSM
Surrogate: Toluene-d8	98.3	Limit: 91-113	% Rec	1		03/14/24 0000	03/14/24 1456	CSM
Surrogate: 4-Bromofluorobenzene	103	Limit: 83-112	% Rec	1		03/14/24 0000	03/14/24 1456	CSM

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 625</b>								
n-Decane	<5	5	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
n-Octadecane	<5	5	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Carbazole	<5	5	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: Nitrobenzene-d5	88.4	Limit: 17-146	% Rec	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: 2-Fluorobiphenyl	67.0	Limit: 18-122	% Rec	1		03/11/24 1117	03/20/24 0835	EPP



Microbac Laboratories, Inc., Newton

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1HC0555

<b>Client Sample ID:</b>	Leachate	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	03/07/2024
<b>Lab Sample ID:</b>	1HC0555-01		

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
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Surrogate: Terphenyl-dl4	79.5	Limit: 27-131	% Rec	1		03/11/24 1117	03/20/24 0835	EPP
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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
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EPA 625								
Bis(2-Chloroethyl) Ether	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2-Chlorophenol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
1,3-Dichlorobenzene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
1,4-Dichlorobenzene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Benzyl Alcohol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
1,2-Dichlorobenzene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Bis[2-Chloroisopropyl]ether	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
n-Nitroso-di-n-propylamine	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Hexachloroethane	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Nitrobenzene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Isophorone	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2-Nitrophenol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2,4-Dimethylphenol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Bis (2-Chloroethoxy) Methane	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Benzoic acid	<50	50	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2,4-Dichlorophenol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
1,2,4-Trichlorobenzene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Naphthalene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Hexachlorobutadiene	<20	20	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
4-Chloro-3-methylphenol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Hexachlorocyclopentadiene	<20	20	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2,4,6-Trichlorophenol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2,4,5-Trichlorophenol	<50	50	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2-Chloronaphthalene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Dimethylphthalate	<15	15	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Acenaphthylene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2,6-Dinitrotoluene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Acenaphthene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2,4-Dinitrophenol	<20	20	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Dibenzofuran	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
2,4-Dinitrotoluene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
4-Nitrophenol	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Diethyl Phthalate	<30	30	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Fluorene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
4-Chlorophenyl Phenyl Ether	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
4,6-Dinitro-2-methylphenol	<20	20	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
N-Nitrosodiphenylamine	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
4-Bromophenyl Phenyl Ether	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP



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1HC0555

<b>Client Sample ID:</b>	Leachate	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	03/07/2024
<b>Lab Sample ID:</b>	1HC0555-01		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Hexachlorobenzene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Pentachlorophenol	<20	20	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Phenanthrene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Anthracene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Di-n-butyl Phthalate	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Fluoranthene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Pyrene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Butyl Benzyl Phthalate	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Benzo(a)anthracene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Chrysene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Bis(2-Ethylhexyl) Phthalate	13	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Di-n-octyl Phthalate	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Indeno(1,2,3-cd)Pyrene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
3,3'-Dichlorobenzidine	<20	20	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Benzo(b)Fluoranthene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Benzo(k)Fluoranthene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Benzo(a)Pyrene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Dibenzo(a,h)anthracene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Benzo(g,h,i)perylene	<10	10	ug/L	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: 2-Fluorophenol	80.9	Limit: 19-139	% Rec	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: Phenol-d6	93.0	Limit: 14-154	% Rec	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: Nitrobenzene-d5	88.4	Limit: 17-146	% Rec	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: 2-Fluorobiphenyl	67.0	Limit: 18-122	% Rec	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: 2,4,6-Tribromophenol	55.7	Limit: 21-151	% Rec	1		03/11/24 1117	03/20/24 0835	EPP
Surrogate: Terphenyl-dl4	79.5	Limit: 27-131	% Rec	1		03/11/24 1117	03/20/24 0835	EPP

Determination of Organochlorine Insecticides & PCBs	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>EPA 3520C/EPA 608</b>								
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Beta-BHC	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Heptachlor	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Delta-BHC	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Aldrin	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Endosulfan I	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
4,4'-DDE	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Dieldrin	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Endrin	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
4,4'-DDD	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Endosulfan II	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
4,4'-DDT	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		03/11/24 1218	03/20/24 1507	EPP



Microbac Laboratories, Inc., Newton

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<b>Client Sample ID:</b>	Leachate	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	03/07/2024
<b>Lab Sample ID:</b>	1HC0555-01		

Determination of Organochlorine Insecticides & PCBs	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlordane	<0.10	0.10	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Toxaphene	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Arochlor 1016	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		03/11/24 1218	03/20/24 1507	EPP
Surrogate: Decachlorobiphenyl	214	Limit: 19-120	% Rec	1	<b>S-GC</b>	03/11/24 1218	03/20/24 1507	EPP
Surrogate: Tetrachloro-m-xylene	70.1	Limit: 30-119	% Rec	1		03/11/24 1218	03/20/24 1507	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>2320B</b>								
Alkalinity, as CaCO3	<b>3020</b>	50	mg/L	1		03/11/24 1043	03/11/24 1340	BSS
<b>4500CN-E</b>								
Cyanide, total	<0.005	0.005	mg/L	1		03/18/24 1000	03/18/24 1603	CHP
<b>5310B</b>								
Total Organic Carbon	<b>320</b>	50.0	mg/L	100		03/21/24 0000	03/21/24 2102	CSM
<b>EPA 150.1</b>								
pH	<b>8.1</b>	0.5	pH	1	<b>I-03</b>	03/12/24 1341	03/12/24 1433	BSS
<b>EPA 1664A</b>								
Oil and Grease	<b>4</b>	4	mg/L	1	<b>PH-3a</b>	03/13/24 0913	03/14/24 1230	CCB
<b>EPA 410.4</b>								
COD, total	<b>1190</b>	216	mg/L	4		03/14/24 0834	03/14/24 1437	CHP
<b>SM 5210 B</b>								
BOD (5 day)	<b>243</b>	6	mg/L	3		03/08/24 1338	03/08/24 1523	MND
<b>TIMBERLINE</b>								
Nitrogen, Ammonia	<b>408</b>	10.0	mg/L	100		03/20/24 0822	03/20/24 1310	LJS
<b>USGS I-1750-85</b>								
Total Dissolved Solids (TDS)	<b>4650</b>	5	mg/L	1		03/13/24 0824	03/13/24 1240	MEAH
<b>USGS I-3765-85</b>								
Total Suspended Solids (TSS)	<b>40</b>	1	mg/L	1		03/13/24 0833	03/14/24 1014	MEAH

Determination of Inorganic Anions	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>300.0</b>								
Chloride	<b>1470</b>	50.0	mg/L	50		03/11/24 0000	03/11/24 1112	MID
Nitrogen, Nitrate	<0.1	0.1	mg/L	1		03/08/24 0000	03/08/24 1318	MID
Sulfate	<b>25.5</b>	1.0	mg/L	1		03/08/24 0000	03/08/24 1318	MID

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

<b>Client Sample ID:</b>	Leachate	<b>Collected By:</b>	JGH
<b>Sample Matrix:</b>	Water	<b>Collection Date:</b>	03/07/2024
<b>Lab Sample ID:</b>	1HC0555-01		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
<b>200.7</b>								
Calcium, total	130	0.1	mg/L	1		03/12/24 0832	03/13/24 1728	JAR
Iron, total	3.01	0.100	mg/L	1		03/12/24 0832	03/13/24 1728	JAR
Magnesium, total	369	0.10	mg/L	1		03/12/24 0832	03/13/24 1728	JAR
Potassium, total	348	1.00	mg/L	1		03/12/24 0832	03/13/24 1728	JAR
Sodium, total	928	10.0	mg/L	10		03/12/24 0832	03/14/24 1301	JAR
<b>245.1</b>								
Mercury, total	<0.00050	0.00050	mg/L	1		03/11/24 1535	03/12/24 1647	JAR
<b>EPA 200.7</b>								
Titanium, total	<0.050	0.050	mg/L	1		03/12/24 0832	03/13/24 1728	JAR
<b>EPA 200.8</b>								
Antimony, total	0.0020	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Arsenic, total	0.0518	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Barium, total	1.27	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Beryllium, total	<0.0020	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Cadmium, total	0.0002	0.0002	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Chromium, total	0.0263	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Cobalt, total	0.0088	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Copper, total	0.0039	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Lead, total	0.0014	0.0008	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Molybdenum, total	0.0042	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Nickel, total	0.0809	0.0040	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Silver, total	<0.0020	0.0020	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Thallium, total	<0.0008	0.0008	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Vanadium, total	0.0266	0.0080	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Zinc, total	0.0542	0.0200	mg/L	4		03/13/24 0845	03/14/24 2019	RVV
Tin, total	<0.0200	0.0200	mg/L	4		03/13/24 0845	03/14/24 2019	RVV





Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
SM 5210 B	1HC0459	1HC0459-BLK1	
		1HC0459-SRM1	
		1HC0555-01	Leachate
		1HC0459-DUP1	1HC0564-01
Method	Batch	Laboratory ID	Client / Source ID
2320B	1HC0553	1HC0553-MS1	1HC0539-10
		1HC0555-01	Leachate
		1HC0553-BS1	
		1HC0553-BLK1	
		1HC0553-MSD1	1HC0539-10
Method	Batch	Laboratory ID	Client / Source ID
EPA 625	1HC0558	1HC0558-BLK1	
		1HC0558-BLK1	
		1HC0558-BS1	
		1HC0558-BS1	
		1HC0558-BSD1	
		1HC0558-BSD1	
		1HC0555-01	Leachate
		1HC0555-01	Leachate
Method	Batch	Laboratory ID	Client / Source ID
EPA 608	1HC0564	1HC0564-BLK1	
		1HC0564-BS1	
		1HC0564-BSD1	
		1HC0555-01	Leachate
Method	Batch	Laboratory ID	Client / Source ID
245.1	1HC0594	1HC0594-BLK1	
		1HC0594-BS1	
		1HC0594-MS1	1HC0539-12
		1HC0594-MSD1	1HC0539-12
		1HC0555-01	Leachate
Method	Batch	Laboratory ID	Client / Source ID
300.0	1HC0608	1HC0608-BLK1	
		1HC0608-MRL1	
		1HC0608-BS1	
		1HC0608-BSD1	
		1HC0555-01	Leachate



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300.0	1HC0608	1HC0608-BLK2	
		1HC0608-MS1	1HC0061-02
		1HC0608-MSD1	1HC0061-02

Method	Batch	Laboratory ID	Client / Source ID
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200.7	1HC0617	1HC0617-BLK1	
EPA 200.7		1HC0617-BLK1	
200.7		1HC0617-BS1	
EPA 200.7		1HC0617-BS1	
200.7		1HC0555-01	Leachate
EPA 200.7		1HC0555-01	Leachate
		1HC0617-MS1	1HC0555-01
200.7		1HC0617-MS1	1HC0555-01
EPA 200.7		1HC0617-MSD1	1HC0555-01
200.7		1HC0617-MSD1	1HC0555-01
EPA 200.7		1HC0617-PS1	1HC0555-01
200.7		1HC0617-PS1	1HC0555-01
		1HC0617-BLK2	
		1HC0555-01RE1	Leachate

Method	Batch	Laboratory ID	Client / Source ID
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EPA 150.1	1HC0645	1HC0645-SRM2	
		1HC0645-DUP1	1HC0539-10
		1HC0555-01	Leachate
		1HC0645-SRM1	

Method	Batch	Laboratory ID	Client / Source ID
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300.0	1HC0673	1HC0673-BLK1	
		1HC0673-MRL1	
		1HC0673-BS1	
		1HC0673-BSD1	
		1HC0555-01	Leachate
		1HC0673-MS1	1HC0072-01
		1HC0673-MSD1	1HC0072-01

Method	Batch	Laboratory ID	Client / Source ID
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USGS I-1750-85	1HC0691	1HC0691-DUP1	1HC0511-01
		1HC0691-BS1	
		1HC0691-BLK1	
		1HC0555-01	Leachate

Method	Batch	Laboratory ID	Client / Source ID
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EPA 200.8	1HC0692	1HC0692-BLK1	
		1HC0692-BS1	



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EPA 200.8	1HC0692	1HC0692-MS1	1HC0459-02
		1HC0692-MSD1	1HC0459-02
		1HC0692-PS1	1HC0459-02
		1HC0555-01	Leachate

Method	Batch	Laboratory ID	Client / Source ID
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USGS I-3765-85	1HC0695	1HC0695-DUP1	1HC0604-03
		1HC0695-BLK1	
		1HC0695-BS1	
		1HC0555-01	Leachate

Method	Batch	Laboratory ID	Client / Source ID
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EPA 1664A	1HC0697	1HC0697-BS1	
		1HC0555-01	Leachate
		1HC0697-DUP1	1HC0718-01
		1HC0697-BLK1	

Method	Batch	Laboratory ID	Client / Source ID
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EPA 410.4	1HC0781	1HC0781-BLK1	
		1HC0781-BS1	
		1HC0555-01	Leachate
		1HC0781-MSD1	1HC0797-02
		1HC0781-MS1	1HC0797-02

Method	Batch	Laboratory ID	Client / Source ID
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EPA 624	1HC0850	1HC0850-BS1	
		1HC0850-BSD1	
		1HC0850-BLK1	
		1HC0555-01	Leachate
		1HC0850-MS1	1HC0342-01
		1HC0850-MSD1	1HC0342-01

Method	Batch	Laboratory ID	Client / Source ID
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4500CN-E	1HC0929	1HC0929-MSD1	1HC0837-03
		1HC0929-BLK1	
		1HC0929-BS1	
		1HC0555-01	Leachate
		1HC0929-MS1	1HC0837-03

Method	Batch	Laboratory ID	Client / Source ID
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TIMBERLINE	1HC1074	1HC1074-BLK1	
		1HC1074-BS1	
		1HC1074-MS1	1HC0449-02
		1HC1074-MSD1	1HC0449-02
		1HC0555-01	Leachate



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Method	Batch	Laboratory ID	Client / Source ID
5310B	1HC1092	1HC1092-BS1	
		1HC1092-BSD1	
		1HC1092-BLK1	
		1HC0555-01	Leachate
		1HC1092-MS1	1HC0624-01
		1HC1092-MSD1	1HC0624-01

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
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Batch 1HC0850 - EPA 5030B - EPA 624

Blank (1HC0850-BLK1)

Prepared: 03/14/24 00:00 Analyzed: 03/14/24 11:03

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							
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							
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							
Dibromochloromethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							

Surrogate: Dibromofluoromethane	50.7	ug/L	50.2	101	79-129
Surrogate: 1,2-Dichloroethane-d4	51.5	ug/L	50.1	103	66-134
Surrogate: Toluene-d8	49.6	ug/L	50.4	98.3	91-113
Surrogate: 4-Bromofluorobenzene	52.4	ug/L	50.1	105	83-112

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0850 - EPA 5030B - EPA 624</b>										
<b>LCS (1HC0850-BS1)</b>										
Prepared: 03/14/24 00:00 Analyzed: 03/14/24 09:43										
Chloromethane	32.92	1.0	ug/L	30.6		107	63-145			
Vinyl Chloride	28.95	1.0	ug/L	30.2		95.8	68-145			
Bromomethane	34.24	1.0	ug/L	28.8		119	69-150			
Chloroethane	32.21	1.0	ug/L	31.6		102	74-134			
1,1-Dichloroethylene	52.08	1.0	ug/L	50.0		104	76-139			
Methylene Chloride	44.60	5.0	ug/L	50.0		89.2	67-141			
trans-1,2-Dichloroethylene	47.93	1.0	ug/L	50.0		95.9	71-137			
1,1-Dichloroethane	47.29	1.0	ug/L	50.0		94.6	72-130			
cis-1,2-Dichloroethylene	47.30	1.0	ug/L	49.5		95.6	81-134			
2-Butanone (MEK)	98.32	10.0	ug/L	103		95.2	44-158			
Chloroform	46.26	1.0	ug/L	50.0		92.5	76-132			
1,1,1-Trichloroethane	42.88	1.0	ug/L	50.0		85.8	65-122			
Carbon Tetrachloride	47.01	1.0	ug/L	50.0		94.0	66-132			
Benzene	45.82	1.0	ug/L	50.0		91.6	77-130			
1,2-Dichloroethane	44.13	1.0	ug/L	50.0		88.3	75-124			
Trichloroethylene	45.35	1.0	ug/L	50.0		90.7	79-126			
1,2-Dichloropropane	45.97	1.0	ug/L	50.0		91.9	79-128			
Dibromomethane	48.87	1.0	ug/L	50.0		97.7	71-139			
Bromodichloromethane	44.11	1.0	ug/L	50.0		88.2	76-122			
2-Chloroethylvinyl ether	99.49	10.0	ug/L	103		97.0	50-169			
cis-1,3-Dichloropropene	44.57	1.0	ug/L	50.3		88.6	74-122			
Toluene	45.30	1.0	ug/L	50.0		90.6	76-128			
trans-1,3-Dichloropropene	44.26	1.0	ug/L	50.4		87.8	73-125			
1,1,2-Trichloroethane	45.33	1.0	ug/L	50.0		90.7	74-126			
Tetrachloroethylene	45.31	1.0	ug/L	50.0		90.6	68-124			
Dibromochloromethane	47.17	1.0	ug/L	49.5		95.3	76-125			
Chlorobenzene	43.81	1.0	ug/L	50.0		87.6	77-120			
Ethylbenzene	44.47	1.0	ug/L	50.0		88.9	76-118			
Xylenes, total	133.5	2.0	ug/L	150		89.0	74-121			
Bromoform	49.03	1.0	ug/L	50.0		98.1	68-128			
1,1,1,2-Tetrachloroethane	47.01	1.0	ug/L	49.8		94.3	62-128			
1,3-Dichlorobenzene	45.28	1.0	ug/L	50.0		90.6	72-123			
1,4-Dichlorobenzene	46.34	1.0	ug/L	50.0		92.7	75-120			
1,2-Dichlorobenzene	44.85	1.0	ug/L	50.0		89.7	72-121			
<i>Surrogate: Dibromofluoromethane</i>	<i>51.3</i>		<i>ug/L</i>	<i>50.2</i>		<i>102</i>	<i>79-129</i>			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>51.2</i>		<i>ug/L</i>	<i>50.1</i>		<i>102</i>	<i>66-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>50.2</i>		<i>ug/L</i>	<i>50.4</i>		<i>99.7</i>	<i>91-113</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.0</i>		<i>ug/L</i>	<i>50.1</i>		<i>99.8</i>	<i>83-112</i>			
<b>LCS Dup (1HC0850-BSD1)</b>										
Prepared: 03/14/24 00:00 Analyzed: 03/14/24 10:09										
Chloromethane	30.96	1.0	ug/L	30.6		101	63-145	6.14	27	
Vinyl Chloride	27.54	1.0	ug/L	30.2		91.1	68-145	4.99	30	
Bromomethane	32.76	1.0	ug/L	28.8		114	69-150	4.42	30	

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0850 - EPA 5030B - EPA 624</b>										

**LCS Dup (1HC0850-BSD1)**

Prepared: 03/14/24 00:00 Analyzed: 03/14/24 10:09

Chloroethane	30.55	1.0	ug/L	31.6		96.6	74-134	5.29	29	
1,1-Dichloroethylene	49.52	1.0	ug/L	50.0		99.0	76-139	5.04	30	
Methylene Chloride	42.90	5.0	ug/L	50.0		85.8	67-141	3.89	25	
trans-1,2-Dichloroethylene	46.45	1.0	ug/L	50.0		92.9	71-137	3.14	29	
1,1-Dichloroethane	45.24	1.0	ug/L	50.0		90.5	72-130	4.43	27	
cis-1,2-Dichloroethylene	45.14	1.0	ug/L	49.5		91.2	81-134	4.67	23	
2-Butanone (MEK)	95.45	10.0	ug/L	103		92.4	44-158	2.96	25	
Chloroform	44.68	1.0	ug/L	50.0		89.4	76-132	3.47	26	
1,1,1-Trichloroethane	41.44	1.0	ug/L	50.0		82.9	65-122	3.42	29	
Carbon Tetrachloride	45.32	1.0	ug/L	50.0		90.6	66-132	3.66	30	
Benzene	44.47	1.0	ug/L	50.0		88.9	77-130	2.99	27	
1,2-Dichloroethane	43.63	1.0	ug/L	50.0		87.3	75-124	1.14	25	
Trichloroethylene	43.97	1.0	ug/L	50.0		87.9	79-126	3.09	28	
1,2-Dichloropropane	44.43	1.0	ug/L	50.0		88.9	79-128	3.41	26	
Dibromomethane	48.48	1.0	ug/L	50.0		97.0	71-139	0.801	27	
Bromodichloromethane	43.11	1.0	ug/L	50.0		86.2	76-122	2.29	24	
2-Chloroethylvinyl ether	98.61	10.0	ug/L	103		96.1	50-169	0.888	28	
cis-1,3-Dichloropropene	43.72	1.0	ug/L	50.3		86.9	74-122	1.93	27	
Toluene	44.57	1.0	ug/L	50.0		89.1	76-128	1.62	28	
trans-1,3-Dichloropropene	43.90	1.0	ug/L	50.4		87.1	73-125	0.817	27	
1,1,2-Trichloroethane	45.07	1.0	ug/L	50.0		90.1	74-126	0.575	26	
Tetrachloroethylene	43.41	1.0	ug/L	50.0		86.8	68-124	4.28	28	
Dibromochloromethane	45.72	1.0	ug/L	49.5		92.4	76-125	3.12	23	
Chlorobenzene	42.25	1.0	ug/L	50.0		84.5	77-120	3.63	27	
Ethylbenzene	42.62	1.0	ug/L	50.0		85.2	76-118	4.25	27	
Xylenes, total	128.9	2.0	ug/L	150		86.0	74-121	3.51	27	
Bromoform	48.30	1.0	ug/L	50.0		96.6	68-128	1.50	25	
1,1,2,2-Tetrachloroethane	46.46	1.0	ug/L	49.8		93.2	62-128	1.18	28	
1,3-Dichlorobenzene	43.68	1.0	ug/L	50.0		87.4	72-123	3.60	29	
1,4-Dichlorobenzene	44.80	1.0	ug/L	50.0		89.6	75-120	3.38	26	
1,2-Dichlorobenzene	43.90	1.0	ug/L	50.0		87.8	72-121	2.14	30	

Surrogate: Dibromofluoromethane	51.7		ug/L	50.2		103	79-129			
Surrogate: 1,2-Dichloroethane-d4	51.0		ug/L	50.1		102	66-134			
Surrogate: Toluene-d8	50.5		ug/L	50.4		100	91-113			
Surrogate: 4-Bromofluorobenzene	49.7		ug/L	50.1		99.0	83-112			

**Matrix Spike (1HC0850-MS1)**

Source: 1HC0342-01

Prepared: 03/14/24 00:00 Analyzed: 03/14/24 17:10

Chloromethane	354.2	10.0	ug/L	306	ND	116	50-155			
Vinyl Chloride	313.3	10.0	ug/L	302	ND	104	64-148			
Bromomethane	272.3	10.0	ug/L	288	ND	94.5	50-159			
Chloroethane	347.3	10.0	ug/L	316	ND	110	65-144			
1,1-Dichloroethylene	554.6	10.0	ug/L	500	ND	111	78-139			
Methylene Chloride	478.9	50.0	ug/L	500	ND	95.8	65-144			

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0850 - EPA 5030B - EPA 624</b>										
<b>Matrix Spike (1HC0850-MS1)</b>	<b>Source: 1HC0342-01</b>			Prepared: 03/14/24 00:00 Analyzed: 03/14/24 17:10						
trans-1,2-Dichloroethylene	508.0	10.0	ug/L	500	ND	102	67-142			
1,1-Dichloroethane	499.7	10.0	ug/L	500	ND	99.9	71-133			
cis-1,2-Dichloroethylene	516.3	10.0	ug/L	495	ND	104	76-142			
2-Butanone (MEK)	1073	100	ug/L	1030	ND	104	48-169			
Chloroform	495.3	10.0	ug/L	500	ND	99.1	75-133			
1,1,1-Trichloroethane	466.3	10.0	ug/L	500	ND	93.3	66-120			
Carbon Tetrachloride	501.3	10.0	ug/L	500	ND	100	67-132			
Benzene	490.5	10.0	ug/L	500	ND	98.1	79-128			
1,2-Dichloroethane	470.0	10.0	ug/L	500	ND	94.0	74-124			
Trichloroethylene	487.7	10.0	ug/L	500	ND	97.5	82-122			
1,2-Dichloropropane	493.2	10.0	ug/L	500	ND	98.6	80-126			
Dibromomethane	519.0	10.0	ug/L	500	ND	104	62-141			
Bromodichloromethane	468.9	10.0	ug/L	500	ND	93.8	77-119			
2-Chloroethylvinyl ether	<100	100	ug/L	1030	ND	2.26	10-157			QM-05
cis-1,3-Dichloropropene	470.8	10.0	ug/L	503	ND	93.6	69-120			
Toluene	488.6	10.0	ug/L	500	ND	97.7	80-125			
trans-1,3-Dichloropropene	463.5	10.0	ug/L	504	ND	91.9	70-122			
1,1,2-Trichloroethane	485.7	10.0	ug/L	500	ND	97.1	73-127			
Tetrachloroethylene	473.6	10.0	ug/L	500	ND	94.7	70-122			
Dibromochloromethane	477.0	10.0	ug/L	495	ND	96.4	75-122			
Chlorobenzene	458.1	10.0	ug/L	500	ND	91.6	81-114			
Ethylbenzene	467.2	10.0	ug/L	500	ND	93.4	79-113			
Xylenes, total	1407	20.0	ug/L	1500	ND	93.8	79-114			
Bromoform	491.7	10.0	ug/L	500	ND	98.3	66-126			
1,1,2,2-Tetrachloroethane	469.1	10.0	ug/L	498	ND	94.1	56-132			
1,3-Dichlorobenzene	458.9	10.0	ug/L	500	ND	91.8	69-125			
1,4-Dichlorobenzene	477.1	10.0	ug/L	500	ND	95.4	73-119			
1,2-Dichlorobenzene	468.4	10.0	ug/L	500	ND	93.7	71-117			
<i>Surrogate: Dibromofluoromethane</i>	<i>517</i>		<i>ug/L</i>	<i>502</i>		<i>103</i>	<i>79-129</i>			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>514</i>		<i>ug/L</i>	<i>501</i>		<i>103</i>	<i>66-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>510</i>		<i>ug/L</i>	<i>504</i>		<i>101</i>	<i>91-113</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>502</i>		<i>ug/L</i>	<i>501</i>		<i>100</i>	<i>83-112</i>			
<b>Matrix Spike Dup (1HC0850-MSD1)</b>	<b>Source: 1HC0342-01</b>			Prepared: 03/14/24 00:00 Analyzed: 03/14/24 17:36						
Chloromethane	324.4	10.0	ug/L	306	ND	106	50-155	8.78	19	
Vinyl Chloride	294.2	10.0	ug/L	302	ND	97.3	64-148	6.29	24	
Bromomethane	239.8	10.0	ug/L	288	ND	83.3	50-159	12.7	17	
Chloroethane	330.1	10.0	ug/L	316	ND	104	65-144	5.08	28	
1,1-Dichloroethylene	536.5	10.0	ug/L	500	ND	107	78-139	3.32	20	
Methylene Chloride	469.1	50.0	ug/L	500	ND	93.8	65-144	2.07	16	
trans-1,2-Dichloroethylene	489.5	10.0	ug/L	500	ND	97.9	67-142	3.71	18	
1,1-Dichloroethane	490.9	10.0	ug/L	500	ND	98.2	71-133	1.78	16	
cis-1,2-Dichloroethylene	475.6	10.0	ug/L	495	ND	96.1	76-142	8.21	17	

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CERTIFICATE OF ANALYSIS

1HC0555

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0850 - EPA 5030B - EPA 624</b>										
<b>Matrix Spike Dup (1HC0850-MSD1)</b>	<b>Source: 1HC0342-01</b>			Prepared: 03/14/24 00:00 Analyzed: 03/14/24 17:36						
2-Butanone (MEK)	1074	100	ug/L	1030	ND	104	48-169	0.102	17	
Chloroform	485.9	10.0	ug/L	500	ND	97.2	75-133	1.92	16	
1,1,1-Trichloroethane	442.6	10.0	ug/L	500	ND	88.6	66-120	5.22	15	
Carbon Tetrachloride	485.6	10.0	ug/L	500	ND	97.1	67-132	3.18	15	
Benzene	472.2	10.0	ug/L	500	ND	94.4	79-128	3.80	12	
1,2-Dichloroethane	468.3	10.0	ug/L	500	ND	93.7	74-124	0.362	12	
Trichloroethylene	463.5	10.0	ug/L	500	ND	92.7	82-122	5.09	13	
1,2-Dichloropropane	478.4	10.0	ug/L	500	ND	95.7	80-126	3.05	10	
Dibromomethane	520.3	10.0	ug/L	500	ND	104	62-141	0.250	11	
Bromodichloromethane	460.7	10.0	ug/L	500	ND	92.1	77-119	1.76	10	
2-Chloroethylvinyl ether	<100	100	ug/L	1030	ND		10-157		30	QM-05
cis-1,3-Dichloropropene	465.6	10.0	ug/L	503	ND	92.5	69-120	1.11	10	
Toluene	473.5	10.0	ug/L	500	ND	94.7	80-125	3.14	12	
trans-1,3-Dichloropropene	467.6	10.0	ug/L	504	ND	92.7	70-122	0.881	10	
1,1,2-Trichloroethane	487.4	10.0	ug/L	500	ND	97.5	73-127	0.349	10	
Tetrachloroethylene	458.4	10.0	ug/L	500	ND	91.7	70-122	3.26	15	
Dibromochloromethane	478.4	10.0	ug/L	495	ND	96.6	75-122	0.293	12	
Chlorobenzene	448.9	10.0	ug/L	500	ND	89.8	81-114	2.03	12	
Ethylbenzene	453.8	10.0	ug/L	500	ND	90.8	79-113	2.91	13	
Xylenes, total	1363	20.0	ug/L	1500	ND	90.9	79-114	3.20	12	
Bromoform	496.2	10.0	ug/L	500	ND	99.2	66-126	0.911	16	
1,1,2,2-Tetrachloroethane	473.1	10.0	ug/L	498	ND	94.9	56-132	0.849	29	
1,3-Dichlorobenzene	452.1	10.0	ug/L	500	ND	90.4	69-125	1.49	18	
1,4-Dichlorobenzene	463.7	10.0	ug/L	500	ND	92.7	73-119	2.85	21	
1,2-Dichlorobenzene	462.2	10.0	ug/L	500	ND	92.4	71-117	1.33	23	
Surrogate: Dibromofluoromethane	519		ug/L	502		103	79-129			
Surrogate: 1,2-Dichloroethane-d4	516		ug/L	501		103	66-134			
Surrogate: Toluene-d8	510		ug/L	504		101	91-113			
Surrogate: 4-Bromofluorobenzene	501		ug/L	501		99.9	83-112			

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0558 - EPA 625 BNA - EPA 625</b>										
<b>Blank (1HC0558-BLK1)</b>	Prepared: 03/11/24 11:17 Analyzed: 03/19/24 15:12									
n-Decane	<5	5	ug/L							
n-Octadecane	<5	5	ug/L							
Carbazole	<5	5	ug/L							
Surrogate: Nitrobenzene-d5	48.7		ug/L	62.6		77.7	17-146			
Surrogate: 2-Fluorobiphenyl	37.9		ug/L	60.0		63.1	18-122			
Surrogate: Terphenyl-d14	57.1		ug/L	60.0		95.0	27-131			





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CERTIFICATE OF ANALYSIS

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Determination of Base/Neutral Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0558 - EPA 625 BNA - EPA 625

LCS (1HC0558-BS1) Prepared: 03/11/24 11:17 Analyzed: 03/19/24 15:37										
Carbazole	18.9	5	ug/L	21.4		88.1	50-122			
Fluoranthene	18.1	10	ug/L	21.4		84.6	42-143			
Bis(2-Ethylhexyl) Phthalate	22.3	10	ug/L	21.4		104	34-180			

Surrogate: Nitrobenzene-d5	52.4		ug/L	62.6		83.6	17-146			
Surrogate: 2-Fluorobiphenyl	38.5		ug/L	60.0		64.1	18-122			
Surrogate: Terphenyl-d14	57.6		ug/L	60.0		96.0	27-131			

LCS Dup (1HC0558-BSD1) Prepared: 03/11/24 11:17 Analyzed: 03/19/24 16:02										
Carbazole	16.4	5	ug/L	21.4		76.5	50-122	14.2	28	
Fluoranthene	19.0	10	ug/L	21.4		88.6	42-143	4.64	30	
Bis(2-Ethylhexyl) Phthalate	20.4	10	ug/L	21.4		95.3	34-180	9.18	30	

Surrogate: Nitrobenzene-d5	50.9		ug/L	62.6		81.3	17-146			
Surrogate: 2-Fluorobiphenyl	36.2		ug/L	60.0		60.3	18-122			
Surrogate: Terphenyl-d14	56.5		ug/L	60.0		94.1	27-131			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0558 - EPA 625 BNA - EPA 625

Blank (1HC0558-BLK1) Prepared: 03/11/24 11:17 Analyzed: 03/19/24 15:12										
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							
Bis[2-Chloroisopropyl]ether	<10	10	ug/L							
n-Nitroso-di-n-propylamine	<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							
Benzoic acid	<50	50	ug/L							
2,4-Dichlorophenol	<10	10	ug/L							
1,2,4-Trichlorobenzene	<10	10	ug/L							
Naphthalene	<10	10	ug/L							
Hexachlorobutadiene	<20	20	ug/L							
4-Chloro-3-methylphenol	<10	10	ug/L							
Hexachlorocyclopentadiene	<20	20	ug/L							

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0558 - EPA 625 BNA - EPA 625</b>									
<b>Blank (1HC0558-BLK1)</b>				Prepared: 03/11/24 11:17 Analyzed: 03/19/24 15:12					
2,4,6-Trichlorophenol	<10	10	ug/L						
2,4,5-Trichlorophenol	<50	50	ug/L						
2-Chloronaphthalene	<10	10	ug/L						
Dimethylphthalate	<15	15	ug/L						
Acenaphthylene	<10	10	ug/L						
2,6-Dinitrotoluene	<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	<30	30	ug/L						
Fluorene	<10	10	ug/L						
4-Chlorophenyl Phenyl Ether	<10	10	ug/L						
4,6-Dinitro-2-methylphenol	<20	20	ug/L						
N-Nitrosodiphenylamine	<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						
Di-n-butyl Phthalate	<10	10	ug/L						
Fluoranthene	<10	10	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						
<i>Surrogate: 2-Fluorophenol</i>	41.8		ug/L	61.6		67.8		19-139	
<i>Surrogate: Phenol-d6</i>	51.5		ug/L	63.5		81.2		14-154	
<i>Surrogate: Nitrobenzene-d5</i>	48.7		ug/L	62.6		77.7		17-146	
<i>Surrogate: 2-Fluorobiphenyl</i>	37.9		ug/L	60.0		63.1		18-122	
<i>Surrogate: 2,4,6-Tribromophenol</i>	36.4		ug/L	62.0		58.7		21-151	
<i>Surrogate: Terphenyl-d14</i>	57.1		ug/L	60.0		95.0		27-131	

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CERTIFICATE OF ANALYSIS

1HC0555

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0558 - EPA 625 BNA - EPA 625</b>										
<b>LCS (1HC0558-BS1)</b>										
Prepared: 03/11/24 11:17 Analyzed: 03/19/24 15:37										
Bis(2-Chloroethyl) Ether	19.5	10	ug/L	21.4		91.0	35-150			
2-Chlorophenol	16.2	10	ug/L	21.4		75.6	51-117			
1,3-Dichlorobenzene	11.6	10	ug/L	21.4		54.2	27-91.3			
1,4-Dichlorobenzene	11.7	10	ug/L	21.4		54.5	28-92.6			
Benzyl Alcohol	22.6	10	ug/L	21.4		105	22-147			
1,2-Dichlorobenzene	12.3	10	ug/L	21.4		57.7	32-94.8			
Bis[2-Chloroisopropyl]ether	15.9	10	ug/L	21.4		74.2	40-125			
n-Nitroso-di-n-propylamine	23.0	10	ug/L	21.4		107	47-136			
Hexachloroethane	10.5	10	ug/L	21.4		49.2	13-110			
Nitrobenzene	19.8	10	ug/L	21.4		92.6	46-133			
Isophorone	21.2	10	ug/L	21.4		99.0	48-130			
2-Nitrophenol	16.1	10	ug/L	21.4		75.3	54-116			
2,4-Dimethylphenol	17.4	10	ug/L	21.4		81.5	47-121			
Bis (2-Chloroethoxy) Methane	19.4	10	ug/L	21.4		90.7	25-110			
2,4-Dichlorophenol	16.7	10	ug/L	21.4		78.1	50-118			
1,2,4-Trichlorobenzene	11.7	10	ug/L	21.4		54.9	27-95.5			
Naphthalene	14.1	10	ug/L	21.4		65.8	42-107			
Hexachlorobutadiene	<20	20	ug/L	21.4		35.7	10-110			
4-Chloro-3-methylphenol	21.3	10	ug/L	21.4		99.4	54-138			
2,4,6-Trichlorophenol	15.9	10	ug/L	21.4		74.3	46-127			
2,4,5-Trichlorophenol	<50	50	ug/L	21.4		78.4	62-119			
2-Chloronaphthalene	14.7	10	ug/L	21.4		68.7	38-118			
Dimethylphthalate	18.0	15	ug/L	21.4		83.9	58-125			
Acenaphthylene	16.3	10	ug/L	21.4		76.1	41-116			
2,6-Dinitrotoluene	18.8	10	ug/L	21.4		87.8	58-126			
Acenaphthene	16.0	10	ug/L	21.4		75.0	45-117			
2,4-Dinitrophenol	<20	20	ug/L	21.4		64.8	21-138			
Dibenzofuran	16.7	10	ug/L	21.4		78.2	51-126			
2,4-Dinitrotoluene	19.0	10	ug/L	21.4		88.9	52-134			
4-Nitrophenol	15.6	10	ug/L	21.4		73.1	41-149			
Diethyl Phthalate	<30	30	ug/L	21.4		84.5	53-132			
Fluorene	17.6	10	ug/L	21.4		82.0	47-126			
4-Chlorophenyl Phenyl Ether	16.4	10	ug/L	21.4		76.6	47-124			
4,6-Dinitro-2-methylphenol	<20	20	ug/L	21.4		70.9	50-139			
N-Nitrosodiphenylamine	18.4	10	ug/L	21.4		86.2	29-129			
4-Bromophenyl Phenyl Ether	15.9	10	ug/L	21.4		74.4	48-125			
Hexachlorobenzene	14.2	10	ug/L	21.4		66.4	29-137			
Pentachlorophenol	<20	20	ug/L	21.4		62.7	15-154			
Phenanthrene	18.3	10	ug/L	21.4		85.7	45-136			
Anthracene	18.4	10	ug/L	21.4		85.8	43-135			
Di-n-butyl Phthalate	19.4	10	ug/L	21.4		90.7	42-153			
Fluoranthene	18.1	10	ug/L	21.4		84.6	42-143			

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CERTIFICATE OF ANALYSIS

1HC0555

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0558 - EPA 625 BNA - EPA 625</b>										
<b>LCS (1HC0558-BS1)</b>				Prepared: 03/11/24 11:17 Analyzed: 03/19/24 15:37						
Pyrene	20.6	10	ug/L	21.4		96.1	40-146			
Butyl Benzyl Phthalate	21.5	10	ug/L	21.4		100	40-151			
Benzo(a)anthracene	18.7	10	ug/L	21.4		87.2	48-136			
Chrysene	18.9	10	ug/L	21.4		88.5	50-136			
Bis(2-Ethylhexyl) Phthalate	22.3	10	ug/L	21.4		104	34-180			
Di-n-octyl Phthalate	23.4	10	ug/L	21.4		109	40-165			
Indeno(1,2,3-cd)Pyrene	17.6	10	ug/L	21.4		82.4	39-152			
Benzo(b)Fluoranthene	19.3	10	ug/L	21.4		90.3	52-140			
Benzo(k)Fluoranthene	19.6	10	ug/L	21.4		91.6	47-147			
Benzo(a)Pyrene	19.0	10	ug/L	21.4		88.7	38-142			
Dibenzo(a,h)anthracene	17.3	10	ug/L	21.4		80.8	37-153			
Benzo(g,h,i)perylene	17.3	10	ug/L	21.4		81.0	39-157			
<i>Surrogate: 2-Fluorophenol</i>	<i>45.0</i>		<i>ug/L</i>	<i>61.6</i>		<i>72.9</i>	<i>19-139</i>			
<i>Surrogate: Phenol-d6</i>	<i>55.2</i>		<i>ug/L</i>	<i>63.5</i>		<i>87.0</i>	<i>14-154</i>			
<i>Surrogate: Nitrobenzene-d5</i>	<i>52.4</i>		<i>ug/L</i>	<i>62.6</i>		<i>83.6</i>	<i>17-146</i>			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>38.5</i>		<i>ug/L</i>	<i>60.0</i>		<i>64.1</i>	<i>18-122</i>			
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>40.3</i>		<i>ug/L</i>	<i>62.0</i>		<i>65.1</i>	<i>21-151</i>			
<i>Surrogate: Terphenyl-d14</i>	<i>57.6</i>		<i>ug/L</i>	<i>60.0</i>		<i>96.0</i>	<i>27-131</i>			
<b>LCS Dup (1HC0558-BS1)</b>				Prepared: 03/11/24 11:17 Analyzed: 03/19/24 16:02						
Bis(2-Chloroethyl) Ether	18.9	10	ug/L	21.4		88.1	35-150	3.23	30	
2-Chlorophenol	16.1	10	ug/L	21.4		75.4	51-117	0.310	27	
1,3-Dichlorobenzene	11.3	10	ug/L	21.4		53.0	27-91.3	2.27	30	
1,4-Dichlorobenzene	11.7	10	ug/L	21.4		54.5	28-92.6	0.00	30	
Benzyl Alcohol	22.1	10	ug/L	21.4		103	22-147	2.11	30	
1,2-Dichlorobenzene	12.2	10	ug/L	21.4		56.8	32-94.8	1.47	30	
Bis[2-Chloroisopropyl]ether	15.8	10	ug/L	21.4		74.1	40-125	0.126	26	
n-Nitroso-di-n-propylamine	23.2	10	ug/L	21.4		108	47-136	0.736	29	
Hexachloroethane	11.2	10	ug/L	21.4		52.4	13-110	6.34	30	
Nitrobenzene	20.1	10	ug/L	21.4		94.0	46-133	1.55	19	
Isophorone	21.1	10	ug/L	21.4		98.7	48-130	0.284	23	
2-Nitrophenol	16.0	10	ug/L	21.4		74.8	54-116	0.685	25	
2,4-Dimethylphenol	17.4	10	ug/L	21.4		81.1	47-121	0.460	29	
Bis (2-Chloroethoxy) Methane	15.5	10	ug/L	21.4		72.3	25-110	22.5	30	
2,4-Dichlorophenol	16.1	10	ug/L	21.4		75.2	50-118	3.78	21	
1,2,4-Trichlorobenzene	11.7	10	ug/L	21.4		54.8	27-95.5	0.0852	30	
Naphthalene	14.2	10	ug/L	21.4		66.6	42-107	1.20	26	
Hexachlorobutadiene	<20	20	ug/L	21.4		36.5	10-110	2.33	30	
4-Chloro-3-methylphenol	20.5	10	ug/L	21.4		95.6	54-138	3.84	12	
2,4,6-Trichlorophenol	14.9	10	ug/L	21.4		69.8	46-127	6.16	21	
2,4,5-Trichlorophenol	<50	50	ug/L	21.4		77.8	62-119	0.718	15	
2-Chloronaphthalene	13.9	10	ug/L	21.4		65.0	38-118	5.45	24	
Dimethylphthalate	18.0	15	ug/L	21.4		84.1	58-125	0.278	20	

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CERTIFICATE OF ANALYSIS

1HC0555

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0558 - EPA 625 BNA - EPA 625

LCS Dup (1HC0558-BSD1)

Prepared: 03/11/24 11:17 Analyzed: 03/19/24 16:02

Acenaphthylene	15.2	10	ug/L	21.4		71.3	41-116	6.53	30	
2,6-Dinitrotoluene	18.3	10	ug/L	21.4		85.6	58-126	2.53	20	
Acenaphthene	15.3	10	ug/L	21.4		71.6	45-117	4.65	27	
2,4-Dinitrophenol	<20	20	ug/L	21.4		64.9	21-138	0.144	22	
Dibenzofuran	16.4	10	ug/L	21.4		76.5	51-126	2.24	15	
2,4-Dinitrotoluene	18.7	10	ug/L	21.4		87.3	52-134	1.75	22	
4-Nitrophenol	17.2	10	ug/L	21.4		80.3	41-149	9.33	28	
Diethyl Phthalate	<30	30	ug/L	21.4		83.5	53-132	1.17	22	
Fluorene	17.0	10	ug/L	21.4		79.7	47-126	2.89	27	
4-Chlorophenyl Phenyl Ether	15.8	10	ug/L	21.4		73.8	47-124	3.60	20	
4,6-Dinitro-2-methylphenol	<20	20	ug/L	21.4		73.8	50-139	3.94	25	
N-Nitrosodiphenylamine	15.4	10	ug/L	21.4		72.1	29-129	17.8	30	
4-Bromophenyl Phenyl Ether	16.1	10	ug/L	21.4		75.4	48-125	1.31	18	
Hexachlorobenzene	14.7	10	ug/L	21.4		68.5	29-137	3.12	30	
Pentachlorophenol	<20	20	ug/L	21.4		65.6	15-154	4.52	29	
Phenanthrene	18.9	10	ug/L	21.4		88.1	45-136	2.80	27	
Anthracene	18.8	10	ug/L	21.4		87.7	43-135	2.21	28	
Di-n-butyl Phthalate	20.3	10	ug/L	21.4		94.9	42-153	4.53	29	
Fluoranthene	19.0	10	ug/L	21.4		88.6	42-143	4.64	30	
Pyrene	20.2	10	ug/L	21.4		94.6	40-146	1.57	25	
Butyl Benzyl Phthalate	21.4	10	ug/L	21.4		100	40-151	0.419	29	
Benzo(a)anthracene	19.1	10	ug/L	21.4		89.3	48-136	2.38	30	
Chrysene	19.8	10	ug/L	21.4		92.6	50-136	4.54	30	
Bis(2-Ethylhexyl) Phthalate	20.4	10	ug/L	21.4		95.3	34-180	9.18	30	
Di-n-octyl Phthalate	23.8	10	ug/L	21.4		111	40-165	1.57	30	
Indeno(1,2,3-cd)Pyrene	19.4	10	ug/L	21.4		90.9	39-152	9.76	30	
Benzo(b)Fluoranthene	20.1	10	ug/L	21.4		94.0	52-140	3.96	30	
Benzo(k)Fluoranthene	21.2	10	ug/L	21.4		98.9	47-147	7.75	30	
Benzo(a)Pyrene	19.5	10	ug/L	21.4		91.0	38-142	2.50	30	
Dibenzo(a,h)anthracene	19.1	10	ug/L	21.4		89.2	37-153	9.90	30	
Benzo(g,h,i)perylene	19.3	10	ug/L	21.4		90.0	39-157	10.5	30	

Surrogate: 2-Fluorophenol	44.2		ug/L	61.6		71.7	19-139			
Surrogate: Phenol-d6	52.0		ug/L	63.5		81.8	14-154			
Surrogate: Nitrobenzene-d5	50.9		ug/L	62.6		81.3	17-146			
Surrogate: 2-Fluorobiphenyl	36.2		ug/L	60.0		60.3	18-122			
Surrogate: 2,4,6-Tribromophenol	38.0		ug/L	62.0		61.4	21-151			
Surrogate: Terphenyl-d14	56.5		ug/L	60.0		94.1	27-131			

Determination of Organochlorine Insecticides & PCBs	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Determination of Organochlorine Insecticides &amp; PCBs</b>										
<b>Batch 1HC0564 - 3520C NP/OC Cont Liq - EPA 608</b>										
<b>Blank (1HC0564-BLK1)</b>				Prepared: 03/11/24 12:18 Analyzed: 03/20/24 13:10						
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							
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							
<i>Surrogate: Tetrachloro-m-xylene</i>	0.677		ug/L	0.600		113	30-119			
<i>Surrogate: Decachlorobiphenyl</i>	0.118		ug/L	0.600		19.7	19-120			
<b>LCS (1HC0564-BS1)</b>				Prepared: 03/11/24 12:18 Analyzed: 03/20/24 13:25						
Gamma-BHC [Lindane]	0.157	0.05	ug/L	0.250		62.6	37-127			
Beta-BHC	0.181	0.05	ug/L	0.250		72.4	36-131			
Heptachlor	0.202	0.05	ug/L	0.250		80.7	36-128			
Delta-BHC	0.175	0.05	ug/L	0.250		69.8	29-147			
Aldrin	0.153	0.05	ug/L	0.250		61.0	41-120			
Heptachlor Epoxide	0.162	0.05	ug/L	0.250		64.6	50-132			
Endosulfan I	0.168	0.05	ug/L	0.250		67.2	50-133			
4,4'-DDE	0.142	0.05	ug/L	0.250		56.8	46-140			
Dieldrin	0.156	0.05	ug/L	0.250		62.5	41-138			
Endrin	0.198	0.05	ug/L	0.250		79.0	32-152			
4,4'-DDD	0.162	0.05	ug/L	0.250		64.9	44-150			
Endosulfan II	0.167	0.05	ug/L	0.250		66.6	45-141			
4,4'-DDT	0.191	0.05	ug/L	0.250		76.5	46-145			
Endrin Aldehyde	0.147	0.05	ug/L	0.250		58.7	33-145			



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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Organochlorine Insecticides &amp; PCBs</b>										
<b>Batch 1HC0564 - 3520C NP/OC Cont Liq - EPA 608</b>										

LCS (1HC0564-BS1) Prepared: 03/11/24 12:18 Analyzed: 03/20/24 13:25										
Endosulfan Sulfate	0.160	0.05	ug/L	0.250		64.0	52-133			
Surrogate: Tetrachloro-m-xylene	0.347		ug/L	0.600		57.8	30-119			
Surrogate: Decachlorobiphenyl	ND		ug/L	0.600			19-120			S-GC

LCS Dup (1HC0564-BSD1) Prepared: 03/11/24 12:18 Analyzed: 03/20/24 13:39										
Gamma-BHC [Lindane]	0.251	0.05	ug/L	0.250		100	37-127	46.4	30	QR-02
Beta-BHC	0.278	0.05	ug/L	0.250		111	36-131	42.2	30	QR-02
Heptachlor	0.307	0.05	ug/L	0.250		123	36-128	41.5	30	QR-02
Delta-BHC	0.285	0.05	ug/L	0.250		114	29-147	48.1	30	QR-02
Aldrin	0.249	0.05	ug/L	0.250		99.8	41-120	48.2	30	QR-02
Heptachlor Epoxide	0.267	0.05	ug/L	0.250		107	50-132	49.3	30	QR-02
Endosulfan I	0.283	0.05	ug/L	0.250		113	50-133	50.9	30	QR-02
4,4'-DDE	0.247	0.05	ug/L	0.250		98.9	46-140	54.1	30	QR-02
Dieldrin	0.259	0.05	ug/L	0.250		104	41-138	49.6	30	QR-02
Endrin	0.327	0.05	ug/L	0.250		131	32-152	49.3	30	QR-02
4,4'-DDD	0.274	0.05	ug/L	0.250		110	44-150	51.3	30	QR-02
Endosulfan II	0.280	0.05	ug/L	0.250		112	45-141	50.7	30	QR-02
4,4'-DDT	0.324	0.05	ug/L	0.250		130	46-145	51.7	30	QR-02
Endrin Aldehyde	0.267	0.05	ug/L	0.250		107	33-145	58.2	30	QR-02
Endosulfan Sulfate	0.266	0.05	ug/L	0.250		106	52-133	49.7	30	QR-02
Surrogate: Tetrachloro-m-xylene	0.539		ug/L	0.600		89.8	30-119			
Surrogate: Decachlorobiphenyl	ND		ug/L	0.600			19-120			S-GC

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Conventional Chemistry Parameters</b>										
<b>Batch 1HC0459 - General Prep Micro - SM 5210 B</b>										

Blank (1HC0459-BLK1) Prepared: 03/08/24 13:38 Analyzed: 03/08/24 14:33										
BOD (5 day)	<2	2	mg/L							B-06
Duplicate (1HC0459-DUP1) Source: 1HC0564-01 Prepared: 03/08/24 13:38 Analyzed: 03/08/24 15:37										
BOD (5 day)	325	60	mg/L		332			2.10	29	
Reference (1HC0459-SRM1) Prepared: 03/08/24 13:38 Analyzed: 03/08/24 14:39										
BOD (5 day)	187	100	mg/L	198		94.4	84.6-115.4			

Batch 1HC0553 - Wet Chem Preparation - 2320B										
Blank (1HC0553-BLK1) Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40										
Alkalinity, as CaCO3	<10	10	mg/L							
LCS (1HC0553-BS1) Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40										
Alkalinity, as CaCO3	46.2	10	mg/L	50.0		92.3	88-114			



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Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0553 - Wet Chem Preparation - 2320B</b>										
<b>Matrix Spike (1HC0553-MS1)</b>	Source: 1HC0539-10		Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40							
Alkalinity, as CaCO3	890	50	mg/L	250	695	78.0	74-122			
<b>Matrix Spike Dup (1HC0553-MSD1)</b>	Source: 1HC0539-10		Prepared: 03/11/24 10:43 Analyzed: 03/11/24 13:40							
Alkalinity, as CaCO3	934	50	mg/L	250	695	95.8	74-122	4.88	10	
<b>Batch 1HC0645 - Wet Chem Preparation - EPA 150.1</b>										
<b>Duplicate (1HC0645-DUP1)</b>	Source: 1HC0539-10		Prepared: 03/12/24 13:41 Analyzed: 03/12/24 14:33							
pH	6.6	0.5	pH		6.6			0.0150	10	
<b>Reference (1HC0645-SRM1)</b>			Prepared: 03/12/24 13:41 Analyzed: 03/12/24 14:33							
pH	7.1	0.5	pH	7.00		101	90-110			
<b>Reference (1HC0645-SRM2)</b>			Prepared: 03/12/24 13:41 Analyzed: 03/12/24 14:33							
pH	7.0	0.5	pH	7.00		101	90-110			
<b>Batch 1HC0691 - Wet Chem Preparation - USGS I-1750-85</b>										
<b>Blank (1HC0691-BLK1)</b>			Prepared: 03/13/24 08:24 Analyzed: 03/13/24 12:40							
Total Dissolved Solids (TDS)	<5	5	mg/L							
<b>LCS (1HC0691-BS1)</b>			Prepared: 03/13/24 08:24 Analyzed: 03/13/24 12:40							
Total Dissolved Solids (TDS)	97	5	mg/L	100		97.4	71-114			
<b>Duplicate (1HC0691-DUP1)</b>	Source: 1HC0511-01		Prepared: 03/13/24 08:24 Analyzed: 03/13/24 12:40							
Total Dissolved Solids (TDS)	1230	5	mg/L		1230			0.326	30	
<b>Batch 1HC0695 - Wet Chem Preparation - USGS I-3765-85</b>										
<b>Blank (1HC0695-BLK1)</b>			Prepared: 03/13/24 08:33 Analyzed: 03/14/24 10:14							
Total Suspended Solids (TSS)	<1	1	mg/L							
<b>LCS (1HC0695-BS1)</b>			Prepared: 03/13/24 08:33 Analyzed: 03/14/24 10:14							
Total Suspended Solids (TSS)	13.6	1	mg/L	15.0		90.7	74-114			
<b>Duplicate (1HC0695-DUP1)</b>	Source: 1HC0604-03		Prepared: 03/13/24 08:33 Analyzed: 03/14/24 10:14							
Total Suspended Solids (TSS)	<1	1	mg/L		2.0				30	
<b>Batch 1HC0697 - Wet Chem Preparation - EPA 1664A</b>										
<b>Blank (1HC0697-BLK1)</b>			Prepared: 03/13/24 09:13 Analyzed: 03/14/24 12:30							
Oil and Grease	<4	4	mg/L							
<b>LCS (1HC0697-BS1)</b>			Prepared: 03/13/24 09:13 Analyzed: 03/14/24 12:30							
Oil and Grease	36.0	4	mg/L	40.0		90.0	78-114			
<b>Duplicate (1HC0697-DUP1)</b>	Source: 1HC0718-01		Prepared: 03/13/24 09:13 Analyzed: 03/14/24 12:30							
Oil and Grease	56.7	4	mg/L		55.5			2.11	18	PH-3
<b>Batch 1HC0781 - Wet Chem Preparation - EPA 410.4</b>										





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Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0781 - Wet Chem Preparation - EPA 410.4</b>										
<b>Blank (1HC0781-BLK1)</b>				Prepared: 03/14/24 08:34 Analyzed: 03/14/24 14:37						
COD, total	<54	54	mg/L							
<b>LCS (1HC0781-BS1)</b>				Prepared: 03/14/24 08:34 Analyzed: 03/14/24 14:37						
COD, total	156	54	mg/L	150		104	90-110			
<b>Matrix Spike (1HC0781-MS1)</b>				Source: 1HC0797-02 Prepared: 03/14/24 08:34 Analyzed: 03/14/24 14:37						
COD, total	1020	108	mg/L	300	716	99.8	90-110			
<b>Matrix Spike Dup (1HC0781-MSD1)</b>				Source: 1HC0797-02 Prepared: 03/14/24 08:34 Analyzed: 03/14/24 14:37						
COD, total	978	108	mg/L	300	716	87.2	90-110	3.80	10	QM-14
<b>Batch 1HC0929 - Wet Chem Preparation - 4500CN-E</b>										
<b>Blank (1HC0929-BLK1)</b>				Prepared: 03/18/24 10:00 Analyzed: 03/18/24 16:03						
Cyanide, total	<0.005	0.005	mg/L							
<b>LCS (1HC0929-BS1)</b>				Prepared: 03/18/24 10:00 Analyzed: 03/18/24 16:03						
Cyanide, total	0.105	0.005	mg/L	0.100		105	62-110			
<b>Matrix Spike (1HC0929-MS1)</b>				Source: 1HC0837-03 Prepared: 03/18/24 10:00 Analyzed: 03/18/24 16:03						
Cyanide, total	0.103	0.005	mg/L	0.100	ND	103	50-116			
<b>Matrix Spike Dup (1HC0929-MSD1)</b>				Source: 1HC0837-03 Prepared: 03/18/24 10:00 Analyzed: 03/18/24 16:03						
Cyanide, total	0.107	0.005	mg/L	0.100	ND	107	50-116	3.47	30	
<b>Batch 1HC1074 - General Prep HPLC/IC - TIMBERLINE</b>										
<b>Blank (1HC1074-BLK1)</b>				Prepared: 03/20/24 08:22 Analyzed: 03/20/24 12:35						
Nitrogen, Ammonia	<0.10	0.10	mg/L							
<b>LCS (1HC1074-BS1)</b>				Prepared: 03/20/24 08:22 Analyzed: 03/20/24 12:36						
Nitrogen, Ammonia	4.84	0.10	mg/L	5.00		96.7	90-114			
<b>Matrix Spike (1HC1074-MS1)</b>				Source: 1HC0449-02 Prepared: 03/20/24 08:22 Analyzed: 03/20/24 12:38						
Nitrogen, Ammonia	17.9	0.10	mg/L	5.00	13.8	80.5	84-115			QM-02
<b>Matrix Spike Dup (1HC1074-MSD1)</b>				Source: 1HC0449-02 Prepared: 03/20/24 08:22 Analyzed: 03/20/24 12:39						
Nitrogen, Ammonia	17.8	0.10	mg/L	5.00	13.8	79.3	84-115	0.339	20	QM-02
<b>Batch 1HC1092 - TOC/DOC - 5310B</b>										
<b>Blank (1HC1092-BLK1)</b>				Prepared: 03/21/24 00:00 Analyzed: 03/21/24 16:06						
Total Organic Carbon	<0.50	0.50	mg/L							
<b>LCS (1HC1092-BS1)</b>				Prepared: 03/21/24 00:00 Analyzed: 03/21/24 15:27						
Total Organic Carbon	5.01	0.50	mg/L	5.00		100	86-120			
<b>LCS Dup (1HC1092-BSD1)</b>				Prepared: 03/21/24 00:00 Analyzed: 03/21/24 15:48						
Total Organic Carbon	5.49	0.50	mg/L	5.00		110	86-120	9.10	10	
<b>Matrix Spike (1HC1092-MS1)</b>				Source: 1HC0624-01 Prepared: 03/21/24 00:00 Analyzed: 03/21/24 22:14						
Total Organic Carbon	13.44	0.50	mg/L	5.00	8.58	97.1	81-128			



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Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC1092 - TOC/DOC - 5310B

<b>Matrix Spike Dup (1HC1092-MSD1)</b>	<b>Source: 1HC0624-01</b>		Prepared: 03/21/24 00:00 Analyzed: 03/21/24 22:33							
Total Organic Carbon	13.76	0.50	mg/L	5.00	8.58	104	81-128	2.35	10	

Determination of Inorganic Anions	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HC0608 - General Prep HPLC/IC - 300.0

<b>Blank (1HC0608-BLK1)</b>	Prepared: 03/08/24 00:00 Analyzed: 03/08/24 11:48									
Nitrogen, Nitrate	<0.1	0.1	mg/L							
Sulfate	<1.0	1.0	mg/L							

<b>Blank (1HC0608-BLK2)</b>	Prepared: 03/08/24 00:00 Analyzed: 03/08/24 17:24									
Nitrogen, Nitrate	<0.1	0.1	mg/L							
Sulfate	<1.0	1.0	mg/L							

<b>LCS (1HC0608-BS1)</b>	Prepared: 03/08/24 00:00 Analyzed: 03/08/24 12:33									
Nitrogen, Nitrate	2.62	0.1	mg/L	2.66		98.6	90-110			
Sulfate	35.48	1.0	mg/L	34.0		104	90-110			

<b>LCS Dup (1HC0608-BSD1)</b>	Prepared: 03/08/24 00:00 Analyzed: 03/08/24 12:55									
Nitrogen, Nitrate	2.61	0.1	mg/L	2.66		98.4	90-110	0.268	10	
Sulfate	35.34	1.0	mg/L	34.0		104	90-110	0.401	10	

<b>Matrix Spike (1HC0608-MS1)</b>	<b>Source: 1HC0061-02</b>		Prepared: 03/08/24 00:00 Analyzed: 03/08/24 22:16							
Nitrogen, Nitrate	43.81	1.0	mg/L	26.6	15.63	106	80-120			
Sulfate	619.2	10.0	mg/L	340	265.8	104	80-120			

<b>Matrix Spike Dup (1HC0608-MSD1)</b>	<b>Source: 1HC0061-02</b>		Prepared: 03/08/24 00:00 Analyzed: 03/08/24 22:38							
Nitrogen, Nitrate	43.81	1.0	mg/L	26.6	15.63	106	80-120	0.00	10	
Sulfate	618.7	10.0	mg/L	340	265.8	104	80-120	0.0921	10	

Batch 1HC0673 - General Prep HPLC/IC - 300.0

<b>Blank (1HC0673-BLK1)</b>	Prepared: 03/11/24 00:00 Analyzed: 03/11/24 09:03									
Chloride	<1.0	1.0	mg/L							

<b>LCS (1HC0673-BS1)</b>	Prepared: 03/11/24 00:00 Analyzed: 03/11/24 09:39									
Chloride	14.52	1.0	mg/L	15.3		94.7	90-110			

<b>LCS Dup (1HC0673-BSD1)</b>	Prepared: 03/11/24 00:00 Analyzed: 03/11/24 09:57									
Chloride	14.62	1.0	mg/L	15.3		95.3	90-110	0.666	10	

<b>Matrix Spike (1HC0673-MS1)</b>	<b>Source: 1HC0072-01</b>		Prepared: 03/11/24 00:00 Analyzed: 03/11/24 11:49							
Chloride	387.1	10.0	mg/L	153	238.4	97.0	80-120			

<b>Matrix Spike Dup (1HC0673-MSD1)</b>	<b>Source: 1HC0072-01</b>		Prepared: 03/11/24 00:00 Analyzed: 03/11/24 12:07							
Chloride	389.5	10.0	mg/L	153	238.4	98.5	80-120	0.600	10	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0594 - EPA 7470A Hg Water - 245.1</b>										
<b>Blank (1HC0594-BLK1)</b> Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:33										
Mercury, total	<0.00050	0.00050	mg/L							
<b>LCS (1HC0594-BS1)</b> Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:35										
Mercury, total	0.00252	0.00050	mg/L	0.00250		101	85-115			
<b>Matrix Spike (1HC0594-MS1)</b> Source: 1HC0539-12 Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:40										
Mercury, total	0.00249	0.00050	mg/L	0.00250	ND	99.6	70-130			
<b>Matrix Spike Dup (1HC0594-MSD1)</b> Source: 1HC0539-12 Prepared: 03/11/24 15:35 Analyzed: 03/12/24 16:42										
Mercury, total	0.00242	0.00050	mg/L	0.00250	ND	96.9	70-130	2.69	10	
<b>Batch 1HC0617 - EPA 200.2 Total ICP-OES (200.7) - 200.7</b>										
<b>Blank (1HC0617-BLK1)</b> Prepared: 03/12/24 08:32 Analyzed: 03/13/24 17:17										
Calcium, total	0.364	0.1	mg/L							A-01
Iron, total	<0.100	0.100	mg/L							
Magnesium, total	0.11	0.10	mg/L							A-01
Potassium, total	<1.00	1.00	mg/L							
Sodium, total	<1.00	1.00	mg/L							
Titanium, total	<0.050	0.050	mg/L							
<b>Blank (1HC0617-BLK2)</b> Prepared: 03/12/24 08:32 Analyzed: 03/14/24 12:55										
Calcium, total	<0.1	0.1	mg/L							
Magnesium, total	<0.10	0.10	mg/L							
Sodium, total	<1.00	1.00	mg/L							
<b>LCS (1HC0617-BS1)</b> Prepared: 03/12/24 08:32 Analyzed: 03/13/24 17:22										
Calcium, total	2.37	0.1	mg/L	2.20		108	85-115			
Iron, total	2.39	0.100	mg/L	2.20		108	85-115			
Magnesium, total	2.28	0.10	mg/L	2.20		104	85-115			
Potassium, total	3.99	1.00	mg/L	4.00		99.8	85-115			
Sodium, total	2.34	1.00	mg/L	2.20		106	85-115			
Titanium, total	0.206	0.050	mg/L	0.200		103	85-115			
<b>Matrix Spike (1HC0617-MS1)</b> Source: 1HC0555-01 Prepared: 03/12/24 08:32 Analyzed: 03/13/24 17:40										
Calcium, total	148	0.1	mg/L	2.20	130	806	70-130			QM-4X
Iron, total	5.84	0.100	mg/L	2.20	3.01	129	70-130			
Magnesium, total	417	0.10	mg/L	2.20	369	NR	70-130			QM-4X
Potassium, total	409	1.00	mg/L	4.00	348	NR	70-130			QM-4X
Sodium, total	1000	1.00	mg/L	2.20	888	NR	70-130			QM-4X
Titanium, total	0.240	0.050	mg/L	0.200	0.0209	110	70-130			
<b>Matrix Spike Dup (1HC0617-MSD1)</b> Source: 1HC0555-01 Prepared: 03/12/24 08:32 Analyzed: 03/13/24 17:50										
Calcium, total	139	0.1	mg/L	2.20	130	392	70-130	6.36	20	QM-4X
Iron, total	5.49	0.100	mg/L	2.20	3.01	113	70-130	6.17	20	
Magnesium, total	387	0.10	mg/L	2.20	369	797	70-130	7.47	20	QM-4X
Potassium, total	378	1.00	mg/L	4.00	348	751	70-130	7.79	20	QM-4X
Sodium, total	920	1.00	mg/L	2.20	888	NR	70-130	8.49	20	QM-4X
Titanium, total	0.228	0.050	mg/L	0.200	0.0209	104	70-130	5.01	20	



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0617 - EPA 200.2 Total ICP-OES (200.7) - 200.7</b>										
<b>Post Spike (1HC0617-PS1)</b>		<b>Source: 1HC0555-01</b>		Prepared: 03/12/24 08:32 Analyzed: 03/13/24 18:00						
Calcium, total	143		mg/L	8.80	130	146	85-115			PS-4X
Iron, total	12.3		mg/L	8.80	3.01	106	85-115			
Magnesium, total	393		mg/L	8.80	369	274	85-115			PS-4X
Potassium, total	377		mg/L	16.0	348	182	85-115			PS-4X
Sodium, total	946		mg/L	8.80	888	650	85-115			PS-4X
Titanium, total	0.818		mg/L	0.800	0.0209	99.7	85-115			

**Batch 1HC0692 - EPA 200.2 Total ICP-MS - EPA 200.8**

<b>Blank (1HC0692-BLK1)</b>				Prepared: 03/13/24 08:45 Analyzed: 03/14/24 19:17						
Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0020	0.0020	mg/L							
Barium, total	<0.0020	0.0020	mg/L							
Beryllium, total	<0.0020	0.0020	mg/L							
Cadmium, total	<0.0002	0.0002	mg/L							
Chromium, total	<0.0020	0.0020	mg/L							
Cobalt, total	<0.0020	0.0020	mg/L							
Copper, total	<0.0020	0.0020	mg/L							
Lead, total	<0.0008	0.0008	mg/L							
Molybdenum, total	<0.0020	0.0020	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							
Thallium, total	<0.0008	0.0008	mg/L							
Vanadium, total	<0.0080	0.0080	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							
Tin, total	<0.0200	0.0200	mg/L							

<b>LCS (1HC0692-BS1)</b>				Prepared: 03/13/24 08:45 Analyzed: 03/14/24 19:24						
Antimony, total	0.0941	0.0020	mg/L	0.100		94.1	85-115			
Arsenic, total	0.0904	0.0020	mg/L	0.100		90.4	85-115			
Barium, total	0.103	0.0020	mg/L	0.100		103	85-115			
Beryllium, total	0.0927	0.0020	mg/L	0.100		92.7	85-115			
Cadmium, total	0.0898	0.0002	mg/L	0.100		89.8	85-115			
Chromium, total	0.0931	0.0020	mg/L	0.100		93.1	85-115			
Cobalt, total	0.0926	0.0020	mg/L	0.100		92.6	85-115			
Copper, total	0.0926	0.0020	mg/L	0.100		92.6	85-115			
Lead, total	0.0958	0.0008	mg/L	0.100		95.8	85-115			
Molybdenum, total	0.0953	0.0020	mg/L	0.100		95.3	85-115			
Nickel, total	0.0923	0.0040	mg/L	0.100		92.3	85-115			
Selenium, total	0.0929	0.0040	mg/L	0.100		92.9	85-115			
Silver, total	0.0944	0.0020	mg/L	0.100		94.4	85-115			
Thallium, total	0.0940	0.0008	mg/L	0.100		94.0	85-115			
Vanadium, total	0.0943	0.0080	mg/L	0.100		94.3	85-115			
Zinc, total	0.0918	0.0200	mg/L	0.100		91.8	85-115			



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0692 - EPA 200.2 Total ICP-MS - EPA 200.8</b>										
<b>LCS (1HC0692-BS1)</b>				Prepared: 03/13/24 08:45 Analyzed: 03/14/24 19:24						
Tin, total	0.0932	0.0200	mg/L	0.100		93.2	85-115			
<b>Matrix Spike (1HC0692-MS1)</b>				Source: 1HC0459-02 Prepared: 03/13/24 08:45 Analyzed: 03/14/24 19:54						
Antimony, total	0.0958	0.0020	mg/L	0.100	ND	95.8	70-130			
Arsenic, total	0.0933	0.0020	mg/L	0.100	0.0007	92.6	70-130			
Barium, total	0.125	0.0020	mg/L	0.100	0.0196	106	70-130			
Beryllium, total	0.0852	0.0020	mg/L	0.100	ND	85.2	70-130			
Cadmium, total	0.0851	0.0002	mg/L	0.100	ND	85.1	70-130			
Chromium, total	0.0893	0.0020	mg/L	0.100	ND	89.3	70-130			
Cobalt, total	0.0933	0.0020	mg/L	0.100	0.0022	91.1	70-130			
Copper, total	0.0860	0.0020	mg/L	0.100	0.0033	82.8	70-130			
Lead, total	0.0877	0.0008	mg/L	0.100	ND	87.7	70-130			
Molybdenum, total	0.115	0.0020	mg/L	0.100	0.0093	105	70-130			
Nickel, total	0.0924	0.0040	mg/L	0.100	0.0053	87.1	70-130			
Selenium, total	0.0941	0.0040	mg/L	0.100	0.0030	91.0	70-130			
Silver, total	0.0895	0.0020	mg/L	0.100	ND	89.5	70-130			
Thallium, total	0.0880	0.0008	mg/L	0.100	ND	88.0	70-130			
Vanadium, total	0.0986	0.0080	mg/L	0.100	0.0055	93.1	70-130			
Zinc, total	0.140	0.0200	mg/L	0.100	0.0541	86.2	70-130			
Tin, total	0.0952	0.0200	mg/L	0.100	ND	95.2	70-130			
<b>Matrix Spike Dup (1HC0692-MSD1)</b>				Source: 1HC0459-02 Prepared: 03/13/24 08:45 Analyzed: 03/14/24 20:00						
Antimony, total	0.0881	0.0020	mg/L	0.100	ND	88.1	70-130	8.37	20	
Arsenic, total	0.0836	0.0020	mg/L	0.100	0.0007	82.9	70-130	11.0	20	
Barium, total	0.112	0.0020	mg/L	0.100	0.0196	92.8	70-130	10.8	20	
Beryllium, total	0.0791	0.0020	mg/L	0.100	ND	79.1	70-130	7.41	20	
Cadmium, total	0.0776	0.0002	mg/L	0.100	ND	77.6	70-130	9.15	20	
Chromium, total	0.0828	0.0020	mg/L	0.100	ND	82.8	70-130	7.59	20	
Cobalt, total	0.0828	0.0020	mg/L	0.100	0.0022	80.6	70-130	11.9	20	
Copper, total	0.0764	0.0020	mg/L	0.100	0.0033	73.1	70-130	11.9	20	
Lead, total	0.0801	0.0008	mg/L	0.100	ND	80.1	70-130	9.06	20	
Molybdenum, total	0.104	0.0020	mg/L	0.100	0.0093	94.5	70-130	9.98	20	
Nickel, total	0.0833	0.0040	mg/L	0.100	0.0053	78.0	70-130	10.4	20	
Selenium, total	0.0801	0.0040	mg/L	0.100	0.0030	77.0	70-130	16.1	20	
Silver, total	0.0808	0.0020	mg/L	0.100	ND	80.8	70-130	10.3	20	
Thallium, total	0.0786	0.0008	mg/L	0.100	ND	78.6	70-130	11.2	20	
Vanadium, total	0.0889	0.0080	mg/L	0.100	0.0055	83.3	70-130	10.4	20	
Zinc, total	0.126	0.0200	mg/L	0.100	0.0541	72.1	70-130	10.6	20	
Tin, total	0.0855	0.0200	mg/L	0.100	ND	85.5	70-130	10.8	20	
<b>Post Spike (1HC0692-PS1)</b>				Source: 1HC0459-02 Prepared: 03/13/24 08:45 Analyzed: 03/14/24 20:06						
Antimony, total	0.103		mg/L	0.0800	0.0003	128	70-130			
Arsenic, total	0.0994		mg/L	0.0800	0.0007	123	70-130			
Barium, total	0.134		mg/L	0.0800	0.0192	144	70-130			PS-04
Beryllium, total	0.108		mg/L	0.0800	0.000006	135	70-130			PS-04
Cadmium, total	0.0893		mg/L	0.0800	0.000002	112	70-130			



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1HC0692 - EPA 200.2 Total ICP-MS - EPA 200.8</b>										
<b>Post Spike (1HC0692-PS1)</b>										
			<b>Source: 1HC0459-02</b>		Prepared: 03/13/24 08:45 Analyzed: 03/14/24 20:06					
Chromium, total	0.0970		mg/L	0.0800	0.0004	121	70-130			
Cobalt, total	0.102		mg/L	0.0800	0.0022	125	70-130			
Copper, total	0.0919		mg/L	0.0800	0.0032	111	70-130			
Lead, total	0.0935		mg/L	0.0800	0.0001	117	70-130			
Molybdenum, total	0.124		mg/L	0.0800	0.0092	144	70-130			PS-04
Nickel, total	0.101		mg/L	0.0800	0.0052	119	70-130			
Selenium, total	0.0980		mg/L	0.0800	0.0030	119	70-130			
Silver, total	0.0957		mg/L	0.0800	0.0003	119	70-130			
Thallium, total	0.0947		mg/L	0.0800	-0.00001	118	70-130			
Vanadium, total	0.109		mg/L	0.0800	0.0054	129	70-130			
Zinc, total	0.155		mg/L	0.0800	0.0530	128	70-130			
Tin, total	0.103		mg/L	0.0800	0.0004	128	70-130			

Definitions

- A-01:** Over limit due to carry-over. To be re-analyzed as BLK2.
- B-06:** Unseeded Blank equals .46mg/L
- I-03:** Analyte required to be analyzed within 15 minutes of sampling. Analysis performed upon receipt of sample at laboratory.
- PH-1:** Insufficient preservative to adjust the sample pH to less than 2, value measured at 6 pH units. Sample was analyzed within 14 days of sampling, but beyond the 7 days recommended for non-preserved samples.
- PH-3:** Insufficient preservative to adjust the sample pH to less than 2, value measured at 3 pH units.
- PH-3a:** Insufficient preservative to adjust the sample pH to less than 2, value measured at 6 pH units.
- PS-04:** The post spike recovery exceeded acceptance limits. However, all other QC was acceptable.
- PS-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.
- QM-02:** The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
- 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-14:** The spike recovery was outside acceptance limits for the MS and/or MSD. However, all other QC was acceptable.
- QM-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.
- QR-02:** The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QS-05:** The spike recovery for this QC sample exceeded established acceptance limits.
- RL:** Reporting Limit
- RPD:** Relative Percent Difference
- S-GC:** Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.8°C



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HC0555

Cooler Inspection Checklist

Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	No	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  
03/27/24 11:56

CHAIN OF CUSTODY RECORD



600 East 17th Street So  
 Newton, IA 50208  
 515-792-2451



1 H C 0 5 5 5

HLW Engineering  
 PM: Heather Murphy

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 Printed: 2/23/2024 9:29:55A

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**SITE INFORMATION**

Sampler: JGH

Project: SCILA - Leachate

**REPORT TO:**

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

Marcia Beeler  
 South Central Iowa Landfill  
 2520 State Hwy 92  
 Winterset, IA 50273

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order LHC0555

Temperature 0.8

Turn-Cooler: -

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	<u>3/6/24</u>	<u>15:23</u>	<u>19</u>	608-107 624-105 625-901 alk-caco3-2320 ba-t-200.8 bod-5210 cd-t-200.8 cn-t-4500e co-t-200.8 cu-t-200.8 hg-t-245.1 mg-t-200.7 na-t-200.7 ni-t-200.8 og-t-1664 ph-150.1 se-t-200.8 624@dibromochloromethane 625-116 ag-t-200.8 as-t-200.8 be-t-200.8 ca-t-200.7 cl-300.0 cod-t-410.4 cr-t-200.8 fe-t-200.7 k-t-200.7 mo-t-200.8 nh3-timberline no3-300.0 pb-t-200.8 sb-t-200.8 sn-t-200.8	<u>01</u>

JGH 3/7/24  
 Relinquished By Date/Time

[Signature] 3-7-24 8:30  
 Relinquished By Date/Time  
 Received for Lab By Date/Time

Remarks:

Received By Date/Time

Original - Lab Copy Yellow - Sampler Copy



CHAIN OF CUSTODY RECORD



600 East 17th Street S  
 Newton, IA 50208  
 541-792-9451



1 H C 0 5 5 5

HLW Engineering  
 PM: Heather Murphy

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**SITE INFORMATION**

Sampler: LeH

Project: SCILA - Leachate

**REPORT 1**

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

Marcia Beeler  
 South Central Iowa Landfill  
 2520 State Hwy 92  
 Winterset, IA 50273

**SPECIAL INSTRUCTIONS**

None

Turn Around Time  
 Standard  RUSH, need by \_\_\_/\_\_\_/\_\_\_

**LAB USE ONLY**

Work Order 1 HCD555

Temperature 0.8

Turn-Cooler: -

- 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
							so4-300.0 ti-t-200.7 toc-5310b v-t-200.8	tds-i-1750-85 tl-t-200.8 tss-i-3765-85 zn-t-200.8

[Signature] 3/7/24  
 Relinquished By Date/Time

[Signature] 3-7-24 8:30  
 Relinquished By Date/Time  
 Received for Lab By Date/Time

Remarks:

Received By Date/Time