January 31, 2024
File No. 27223133.24

Mr. Mick Leat
Iowa Department of Natural Resources
Land Quality Bureau
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319-0034

Subject: 2023 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Clinton County Sanitary Landfill - East
South MSWLF Unit
Permit No. 23-SDP-01-74P

Dear Mick:

SCS Engineers, on behalf of the Clinton County Area Solid Waste Agency, has completed the required groundwater monitoring and statistical analyses for the South municipal solid waste landfill (MSWLF) unit at the Clinton County Sanitary Landfill–East for the year 2023. Services were performed in general accordance with Iowa Administrative Code (IAC) 567-113 and the current requirements for implementation of the Hydrologic Monitoring System Plan for the South MSWLF unit. Please find enclosed a copy of the 2023 Annual Water Quality Report.

Additionally, an evaluation of the leachate control system and gas monitoring results are included in accordance with IAC 113.7(5)"b"(14) and 113.9(2)"d", respectively. The 2023 Leachate Control System Performance Evaluation Report for the South MSWLF unit and the 2023 Landfill Gas Annual Report for the site are included as appendices to the Annual Water Quality Report.

If you have any questions regarding these reports, please contact Nathan Ohrt at (319) 331-9613.

Sincerely,

Nathan Ohrt
Senior Project Professional
SCS Engineers

Timothy C. Buelow, P.E.
Project Director
SCS Engineers

NPO/TCB

Copies: Mr. Brad Seward, Clinton County Area Solid Waste Agency

2023 ANNUAL WATER QUALITY REPORT, LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT, & LANDFILL GAS ANNUAL REPORT

FOR

CLINTON COUNTY SANITARY LANDFILL - EAST SOUTH MSWLF UNIT

CLINTON, IOWA

SOLID WASTE PERMIT NO. 23-SDP-01-74P

SUBMITTAL DATE: JANUARY 2024

PREPARED FOR:

CLINTON COUNTY AREA SOLID WASTE AGENCY

PREPARED BY:

SCS ENGINEERS

Certification

Prepared by: _____ Date: 1/31/2024

Typed: Nathan Ohrt

Reviewed by: _____ Date: 1/31/2024

Typed: Timothy C. Buelow, P.E.

Certification page (PE or ground water scientist signature) **113.10(1)"d"**

For the purposes of this rule, a "qualified groundwater scientist" means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

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Executive Summary

ES.1 Period of Report Coverage

The period of report coverage is from January to November 2023 and includes the sampling events summarized in the attached Table 2.

ES-2 Report Priority

The following summarizes report priorities associated with groundwater compliance for the South municipal solid waste landfill unit (South MSWLF unit) at the Clinton County Sanitary Landfill–East (Landfill):

- Department review urgency: None.
- Department review impact on rules schedule: None.
- Actions or activities on hold pending Department review or comment: None.
- Actions and/or permit amendments needed: None.

ES.3 Site Status and Applicable Rules

- Landfill Status: Active
- Types of waste accepted: MSW, C&D, and Special Waste
- Applicable IAC rules: 2009 567-113.10

ES.4 Comments

The following summarizes points of special emphasis:

- In correspondence dated June 5, 2023 (Doc #106928), the Iowa Department of Natural Resources stated the following:

> *AZPOC well MW-28 was added to the HMSP in 2022 due to arsenic, barium, and cobalt SSLs at former point of compliance well MW-20. MW-28 is an important monitoring point as it is near the property boundary and a potential off-site receptor. This well was reportedly dry during the Fall 2022 sampling event, and we are unsure if this is a temporary issue going forward. As you know, without samples we cannot measure progress toward remedy completeness or estimate the size of the groundwater attention zone(s). Therefore, if samples are not collected from this point in 2023, you are directed to replace MW-28 with a more reliable monitoring point.*

AZPOC monitoring well MW-28 was sampled during the March 2023 sampling event. There was insufficient water to obtain a sample from monitoring well MW-28 during the August 2023 sampling event, likely due to the unusually dry weather conditions during this reporting period.

- Of the 81 total trends evaluated for the source monitoring wells, 44, or greater than 54%, had a Mann-Kendall statistic less than or equal to 0, which indicates a generally stable or decreasing trend.
- No SSIs were indicated in the AZPOC monitoring wells during this reporting period. The AZPOC monitoring wells will be evaluated by confidence intervals once four samples are obtained to monitor progression towards remedy completeness.

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Section 1.0
Acronyms/Abbreviations

ACM = Assessment of Corrective Measures
C&D = Construction & Demolition
CAMP = Corrective Action Groundwater Monitoring Program
CL = Control Limit - Mean plus Two Standard Deviations
C&D = Construction and Demolition
DNR = Iowa Department of Natural Resources
DO = Dissolved Oxygen
DQR = Double Quantification Rule
GWPS = Groundwater Protection Standard
LEL = Lower Explosive Limit
LCL = Lower Confidence Limit
LN = Lognormal
MCL = EPA Maximum Contaminant Level
MSW = Municipal Solid Waste
N = Normal
NC = No Change
NM = Not Measured
NP = Non-Parametric
ORP = Oxidation-Reduction Potential
P = Parametric
PL = Prediction Limit
RL = Reporting Limit
SWS = DNR Statewide Standard for a protected groundwater source
SSI = Statistically Significant Increase above background
SSL = Statistically Significant Level above groundwater protection standard
SSS = Site-Specific Standard (Site-Specific GWPS)
UCL = Upper Confidence Limit
VOC = Volatile Organic Compound

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Section 2.0
Site Background

2.1 Site Location

The Landfill property is depicted in Figure 1, Approved Monitoring Network. The Landfill property consists of approximately 330 acres located along 220th Street, approximately 5 miles west of Clinton, Iowa and is located within the S ½, NE ¼; E ½, SW ¼; and the SE ¼ of Section 33, in Township 82 North, Range 6 East, in Clinton County, Iowa.

2.2 Geology and Hydrogeology of the Site

Previous hydrologic investigations of the site were conducted by Barker Lemar Engineering Consultants and reported in the document entitled *Hydrogeological Investigation Plan and Report* as part of the June 2006 *Revised 2005 Lateral Expansion Plan* (Doc #40077), and by Indeco, Inc. as reported in the March 1991 document entitled, *Clinton County Area Solid Waste Agency, Clinton County, Iowa, East Site - Soils Exploration, Monitoring Well Construction, and Hydrologic Monitoring System Report* (Doc #3519, cover letter only). Information and excerpts from these reports were compiled to create the summary below.

> *The regional stratigraphy located within the landfill area is Wisconsin age loess consisting of wind deposited silts and clays. The loess is approximately 1 to 30 feet thick and is underlain by Pre-Illinoian age paleosols and glacial tills. The glacial tills are of the Wolf Creek Formation and consist of clays and sandy clays with various amounts of sand and gravel and range in thickness from less than 1 foot up to 75 feet.*
>
> *The landfill lies within the Mississippi River tributary drainage basin. The local watershed contains the northwest branch of Mill Creek on the east side of the landfill, which flows southeast, and Brookside Creek on the west side which also flows southeast (Indeco, 1991).*
>
> *The saturated zones within the stratigraphy of the landfill area consist of the Wisconsin loess, the Late Sangamon paleosol, and the Yarmouth-Sangamon paleosol. The Maquoketa shales underlying the glacial tills act as a confining bed (Indeco, 1991).*

In addition to the above hydrogeological investigations, the data from a 2004 hydrogeological investigation by Barker Lemar Engineering Consultants (*Hydrogeologic Assessment Work Plan,* Doc #40251) indicated that similar soils exist within the Lateral Expansion Plan area, and when describing the area "west of the topographic ridge" which is the area of the South MSWLF unit, Barker Lemar reported in the *Revised 2005 Lateral Expansion Plan*:

> *West of this topographic high ridge, the groundwater flow is very similar to the surface drainage patterns and it is apparent that the groundwater is being relieved by the surface drainage features (Indeco, 1991). The groundwater contours beneath the proposed Lateral Expansion Plan area indicate a uniform flow to the south, southwest in the north and central upgradient areas, changing to a southeast direction in the southernmost area.*
>
> *The proposed lateral expansion area consists of a strip of land that abuts the west side of the existing landfill area. Barker Lemar conducted eight borings from which*

> *geologic data were obtained. These borings were developed into monitoring wells. During previous studies, the subsurface geology in the existing landfill area was characterized by the generation of eight profiles, four representing conditions at the boundary of the proposed expansion area. A review of these profiles indicates that the subsurface conditions within the proposed lateral expansion area are substantially similar to the previous area of study.*

Copies of the "previous study" Indeco soil profiles referenced above are provided in Appendix A of the 2019 *Revised Hydrologic Monitoring System Plan*. The following excerpt describes the geology beneath the Lateral Expansion Area and was taken from Appendix 3 of the *Revised 2005 Lateral Expansion Plan* by Barker Lemar.

> *In both existing and proposed lateral expansion areas, soil profiles indicated similar characteristics. In the flatter-sloped areas, a layer of loess (brown to grayish-brown silt and silty lean clay) approximately 10 - 20 feet thick was encountered. The loess layer thins out in the steeper-sloped areas. Beneath the loess layer, brown, yellowish brown, and reddish brown lean clays with sand and gravels were encountered; which are typically identified as oxidized till on the Barker Lemar profile sheets (Attachment 3, Figures A3-1 through A3-5). This layer varies in thickness from zero to 20 feet thick throughout both the existing area and proposed lateral expansion areas. In general, the oxidized till layer is prevalent in the southern portion of the proposed lateral expansion area; its thickness diminishes toward the north. The boring data from the Indeco study indicates a similar occurrence pattern—nearly all incidences of brown and reddish brown lean clays occurred in the southern portion of the study area.*
>
> *Both Barker Lemar and Indeco borings indicate a substantial layer of gray-brown to gray lean clay, which has been labeled as transition zone in the Barker Lemar profiles, and which lies beneath the loess and/or oxidized till layers throughout the site. Additionally, in both studies, the deeper borings encountered dark gray-blue silty lean clay with sand and gravel, which are characterized on the Barker Lemar profile sheets as unoxidized till.*

Copies of Attachment 3, Figures A3-1 through A3-5 are provided in Appendix A of the 2019 *Revised Hydrologic Monitoring System Plan*. Barker Lemar reported in Appendix 3 of the *Revised 2005 Lateral Expansion Plan* that the water table aquifer was the uppermost aquifer. The following excerpt describes the location of the uppermost aquifer in the soil strata for the *Revised 2005 Lateral Expansion Plan* area and the area east of the 2005 Lateral Expansion Plan (Ravines #5 & #6):

> *The Indeco report indicates that in the area of study, which is on the east side of the proposed lateral expansion area, the water table aquifer is situated within the strata identified in the Barker Lemar profiles as, loess, oxidized till, and transition zone layers. The Barker Lemar study indicates that these layers continue beneath the proposed lateral expansion area and with minor exceptions, the water table aquifer is beneath the loess layer in the oxidized till and transition zone layers. Similar to the Indeco report, the Barker Lemar data also confirms that the water table aquifer generally follows the topography with a high dome on high ground that drops toward ravines, swales, or gullies. The water table aquifer is the uppermost aquifer throughout the area.*

Copies of cross-sections (Drawing Nos. 140-148) from the 1991 Indeco report are included in Appendix A of the 2019 *Revised Hydrologic Monitoring System Plan*.

Historical water levels were reviewed in nested monitoring wells MW-90-10 and MW-90-11 on the east side of the South MSWLF unit. Monitoring well MW-90-10 was installed to a depth of approximately 61 feet below ground surface and monitoring well 90-MW-11 was installed to a depth of approximately 25 feet below ground surface. Both monitoring wells had water during the measurement events, indicating the statement in the *Revised 2005 Lateral Expansion Plan* that the *"water table aquifer is the uppermost aquifer throughout the area"* is true throughout most of the site.

However, it appears a perched water-bearing zone is present at depth near the southwest corner of the South MSWLF unit. Soils are generally lacking in free water above and below this zone. The groundwater underdrain beneath the Phase 1A cell intersected and locally dewatered the perched zone, drying out monitoring wells adjacent to the cell. Monitoring wells installed and screened below the groundwater underdrain elevation did not produce water as the soils below the perched zone are unsaturated to at least the bedrock surface. The impact of the groundwater underdrain is illustrated by water levels in monitoring well MW-05-7, which consistently produced water for sampling through the March 2011 sampling event. Following the installation of the groundwater underdrain in July 2011, monitoring well MW-05-7 no longer produced water, beginning with the subsequent (September 2011) sampling event. Monitoring well MW-25R, installed at the base of the unconsolidated materials in 2014 to replace dry well MW-25, did not produce sufficient water for sampling. Previous studies have indicated that vertical downward migration is extremely slow on the order of decades per foot (Indeco, 1991).

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Section 3.0
Figures Discussion

The following figures are attached.

3.1 Figure 1 – Approved Monitoring Network

The Landfill property and Hydrologic Monitoring System Plan (HMSP) monitoring network are depicted in Figure 1. Figure 1 indicates the respective monitoring programs of the HMSP monitoring points as of the end of this reporting period.

3.2 Figure 2 – Shallow Groundwater Contours

A groundwater contour map based on shallow groundwater levels measured during the August 2023 sampling event is included as Figure 2. Shallow groundwater flow associated with the South MSWLF unit is generally to the south in the northern portion and to the south-southwest in the southern portion and is generally reflective of surface topography. As the contours appear to follow generally similar patterns as previous groundwater contour maps, it does not appear that recent waste disposal activities have resulted in a significant change to flow paths.

An unsaturated zone appears to be present below the water table. The groundwater underdrain beneath the Phase 1A cell appears to have dewatered the water table in the immediate area resulting in monitoring well MW-25R on the west side of the cell being consistently dry. This dewatering is described in DNR correspondence dated August 15, 2016 (Doc #86913):

> *Excavation for the Phase 0 and Phase 1 cells of the 2005 Horizontal Expansion removed a significant portion of the uppermost aquifer from this area, and construction of stormwater controls and an underdrain resulted in its effective dewatering. Therefore, wells previously installed in these strata are dry and can no longer be sampled.*

3.3 Figure 3 – Bedrock Groundwater Contours

A groundwater contour map based on bedrock groundwater levels measured during the August 2023 sampling event is included as Figure 3. Bedrock groundwater flow is generally to the southeast across the site.

3.4 Figure 4 – Reporting Period Detection Summary

Figure 4 shows the range of measured concentrations by monitoring point for the HMSP monitoring points associated with the South MSWLF unit during this reporting period. The water table monitoring wells and bedrock monitoring wells are considered separately. Further discussion of the detected constituents is included in Section 6.0 – Data Evaluation and Summary of this report.

3.5 Figure 5 – Arsenic Concentration Map

A groundwater concentration map for SSL parameter arsenic is included as Figure 5. The background prediction limit is 0.008423 mg/L. Arsenic concentrations are defined to background to the west by monitoring wells MW-19 and MW-05-8R, to the east of SSL monitoring well MW-20 and south of SSL monitoring well MW-90-11 by monitoring well MW-24, to the east by AZPOC monitoring well MW-29, and to the south by AZPOC monitoring well MW-28.

3.5 Figure 6 – Barium Concentration Map

A groundwater concentration map for SSL parameter barium is included in Figure 6. The background prediction limit is 0.5589 mg/L; it should be noted that a natural log transformation was applied to the prediction limit during both semi-annual statistical evaluations during this reporting period. Barium concentrations are defined to background near SSL monitoring well MW-20, as concentrations in bracketing wells are below the prediction limit, including monitoring well MW-19 to the west, monitoring wells MW-24 and MW-90-11 to the northeast, and AZPOC monitoring well MW-28 to the south.

3.6 Figure 7 – Cobalt Concentration Map

A groundwater concentration map for SSL parameter cobalt is included as Figure 7. The background prediction limit is 0.000377 mg/L. Cobalt near SSL monitoring wells MW-32 and MW-33 is bracketed by AZPOC monitoring well MW-05-2. Cobalt near SSL monitoring well MW-90-11 is bracketed by AZPOC monitoring well MW-29. Cobalt concentrations are defined near SSL monitoring well MW-20 to the west by a J flag concentration at monitoring well MW-19 and to the south by AZPOC monitoring well MW-28.

3.7 Figure 8 – Vinyl Chloride Concentration Map

A groundwater concentration map for SSL parameter vinyl chloride is included in Figure 8. Vinyl chloride is generally defined near SSL monitoring well MW-24. Vinyl chloride impact in MW-24 is defined to the north by MW-90-11, east by MW-29, southeast by MW-90-18, and south by MW-34. Vinyl chloride concentrations in the five most recent sampling events in monitoring well MW-24 were below the GWPS.

Section 4.0
Standards History Graphs

Standards history graphs for the Appendix I metals in the water table aquifer are included in Appendix E.

During the 2022 reporting period, the sample collected from background monitoring well MW-06-7R during the September 22, 2015 sampling event was determined to be not representative of actual groundwater conditions based on the growing set of post-September 22, 2015 analytical data, and the associated inorganic data from the September 22, 2015 sampling event was excluded from statistical consideration. This resulted in a significant decrease to many of the prediction limits as reflected in the standards history graphs. For each parameter, the prediction limit was below the GWPS.

During this reporting period, bedrock monitoring wells MW-39, MW-40, MW-41, and MW-42 were analyzed using intrawell statistical methods as approved in correspondence dated August 3, 2022 (Doc #103749). To reduce the size of the report, standards history graphs are not included in this report for the bedrock monitoring wells. Table 5 provides a summary of background standards and GWPSs for each of the compliance bedrock monitoring wells.

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Section 5.0
QA/QC Summary

The quality assurance/quality control (QA/QC) program for the South MSWLF unit follows similar protocols as included in the HMSP. Data validation procedures were performed on analytical results for laboratory quality control samples and a quality assurance assessment of the data was conducted as the data were generated. The QA review procedure provided documentation of the accuracy and precision of the analytical data and confirmed that the analyses were sufficiently sensitive to detect constituents at levels below regulatory standards when technically feasibly with the laboratory method utilized. SCS then conducted QA/QC data validation of the produced data, which included review of sample handling, analytical sensitivity, and blanks, accuracy, and precision. A summary of the laboratory QA/QC and data validation can be found in Appendix B-1, Laboratory Analytical Data Sheets, and Appendix B-2, Data Validation Documentation, respectively.

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Section 6.0
Data Evaluation

The most recently revised permit, dated June 5, 2023 (Doc #106929), defined the HMSP monitoring network for the South MSWLF unit in Special Provision X.4.a.:

a. *The HMSP for the South MSWLF unit, including the Phase 0 and Phase 1A cells in the Lateral Expansion, shall include the following:*

(1) Unconsolidated aquifer background groundwater monitoring point MW-06-7R;

(2) Unconsolidated aquifer downgradient compliance wells, MW-05-8R, MW-19, and MW-25R;

(3) Downgradient attenuation zone compliance wells MW-05-2, MW-05-3, MW-28, and MW-29;

(4) Supplemental attenuation zone source wells MW-90-11, MW-20, MW-24, MW-32, and MW-33[1];

(5) Bedrock aquifer background well MW-43BG;

(6) Bedrock aquifer downgradient compliance wells MW-39, MW-40, MW-41, MW-42;

(7) Underdrain monitoring points UD-2 and GU-1; and

(8) Corrective action monitoring program (CAMP) points[2].

[1] Samples from the supplemental attenuation zone source wells shall be analyzed semiannually for the Appendix I parameters and biennially for total organic carbon, nitrate, iron, manganese, and sulfate until the DNR approves otherwise. Since these wells are not compliance points, they are not subject to the requirements of 567 IAC 113.10(5)"c" and 113.10(6).

[2] The Selection of Remedy and Corrective Action Monitoring Program (CAMP) letter report (Doc #97615), dated April 27, 2020, and CAMP amendment (Doc #98264), dated August 17, 2020, both submitted by Evora Consulting, was approved on September 10, 2020. The CAMP has been further modified in accordance with HMSP and Corrective Action Groundwater Monitoring Program Modification request (Doc #103586), dated July 12, 2022 and approved on July 29, 2022. As described in these documents, the following corrective action monitoring activities will be conducted semiannually in addition to the routine monitoring required in 567 IAC 113.10(5,6) until otherwise approved:

- *Delineation wells MW-90-18, and MW-34 – for vinyl chloride, and*
- *Phase E-1 gas vent – for methane.*

Detection Monitoring

Detection monitoring points include background monitoring well MW-06-7R, monitoring wells MW-05-8R and MW-25R, and underdrain monitoring points UD-2 and GU-1. Monitoring points MW-25R and UD-2 do not have the required number of samples for statistical evaluation as they currently have zero and one sample, respectively. Monitoring point GU-1 is treated with the leachate due to consistent VOC detections and is not statistically evaluated. Monitoring well MW-05-8R was sampled and statistically evaluated during the 1st 2023 statistical evaluation with interwell prediction limits. SSIs were indicated for nickel, thallium, and silver. Despite the low concentrations, well below the corresponding GWPSs, the

concentrations measured in March 2023 were above the prediction limits. In a telephone conversation on May 16, 2023, the DNR authorized not confirming the indicated SSIs at this time due to the low measured concentrations and no indication of impact in the monitoring well. The results of the 2nd 2023 sampling event were intended to further evaluate the indicated SSIs. As monitoring well MW-05-8R did not produce a sample during the August 2023 sampling event, no evaluation was performed for the monitoring well during the 2nd 2023 statistical evaluation. Analytical results and statistical conclusions for MW-05-8R will be re-evaluated following the next successful sampling event and statistical evaluation.

AZPOC monitoring wells MW-28 and MW-29 were sampled during the March 2023 sampling event; AZPOC monitoring wells MW-05-2 and MW-05-3 did not produce samples during the March event. Monitoring wells MW-05-2 and MW-29 were sampled during the August 2023 sampling event; AZPOC monitoring wells MW-05-3 and MW-28 did not produce samples during the August sampling event. The unusually dry weather conditions complicated sampling during this reporting period as multiple wells did not contain sufficient water to produce samples. No SSIs were indicated in the AZPOC monitoring wells during this reporting period.

The AZPOC monitoring wells will be evaluated by confidence intervals once four samples are obtained to monitor progression towards remedy completeness.

Assessment Monitoring

During the 1st and 2nd 2023 statistical evaluation, assessment monitoring well MW-19 was sampled and statistically evaluated by confidence intervals. No SSLs above a GWPS were identified.

Source Characterization

Monitoring wells MW-90-11, MW-20, MW-24, MW-32, and MW-33 are designated as supplemental attenuation zone source wells. These monitoring wells are sampled semi-annually for Appendix I and TSS and biennially for natural attenuation parameters. Mann-Kendall trending evaluation of Appendix I parameters is performed annually.

During the 2nd 2023 statistical evaluation, the Mann-Kendall trend testing performed at 99% confidence (α=0.01) identified 1,2-dichloropropane in monitoring well MW-24 and cis-1,2-dichloroethene in monitoring well MW-32 as having statistically significant decreasing trends. Of the 81 total trends evaluated, 44 trends, or greater than 54%, had a Mann-Kendall statistic less than or equal to 0, which indicates a generally stable or decreasing trend. A Mann-Kendall trend test summary table and graphs for the supplemental attenuation zone source wells are included in Appendix F.

Bedrock Aquifer

The bedrock monitoring wells were evaluated during the 2023 statistical evaluations using intrawell prediction limits. No SSIs were indicated during this reporting period. Background bedrock monitoring well MW-43BG was sampled but was not statistically evaluated. The statistical evaluation in accordance with the requirements of IAC 567-113.10(5) are located in Appendix D, Statistical Method and Output, of this report.

6.1 Data Evaluation

Groundwater monitoring for the water table beneath the South MSWLF unit consists of samples from monitoring wells encompassing the downgradient perimeters of the unit and two groundwater underdrain discharge points. Background monitoring well MW-06-7R is located at the northern property boundary. Bedrock monitoring wells are situated around the Landfill, with background monitoring well MW-43BG located near the northern property

boundary. The range of measured concentrations for the detected constituents detected during this reporting period is shown on Figure 4, Reporting Period Detection Summary. The water table monitoring wells and the bedrock monitoring wells are considered separately on Figure 4. It should be noted that the source characterization monitoring wells are no longer subject to IAC 113.10(5) or 113.10(6), so are not included in Figure 4.

For the water table monitoring wells, the one VOC detected was in AZPOC monitoring well MW-28. Maximum site-wide concentrations of metals were measured in background monitoring well MW-06-7R, detection monitoring well MW-05-8R, assessment monitoring well MW-19, and AZPOC monitoring well MW-29 during this reporting period.

For the bedrock monitoring wells, no VOCs were detected. Maximum site-wide concentrations of metals were measured in background monitoring well MW-43BG and detection monitoring well MW-39. A strong positive correlation between TSS concentrations and total metals concentrations is evident in the bedrock data. Monitoring well MW-43BG has been removed from the HMSP monitoring network and was not statistically evaluated.

SSIs for cadmium, cobalt, and thallium were measured in monitoring well MW-19. SSIs are not retested for assessment monitoring wells. No SSIs were measured in monitoring wells MW-05-8R (dry in August 2023), and MW-25R (dry in March and August 2023) (see Table 7).

Special Provision X.4.b. of the permit requires semi-annual measurements of groundwater elevation data from monitoring wells of MW-21, MW-05-1, MW-05-2, MW-05-3, and the Phase 1A underdrain in order to measure the separation of the base of the MSWLF unit from the groundwater water table. These measurements are summarized in the table below.

Water Level Summary

Monitoring Well	3/2023 Elevation	8/2023 Elevation
MW-21	709.85	711.56
MW-05-1	714.29	712.82
MW-05-2	NA (Dry)	697.36
MW-05-3	NA (Dry)	NA (Dry)
Phase 1A underdrain	NA	NA

All measurements in feet above mean sea level.
NA – Not available.

During this reporting period, the equipment monitoring the elevation of the Phase 1A underdrain was not operating properly, so data from the underdrain is unavailable. However, to evaluate the waste/groundwater separation distance, elevations were used from monitoring wells MW-25R and MW-05-8R and the bottom of the waste elevation calculated from the Construction Observation Report, Phase 1A Cell Construction, dated September 28, 2011 (#66679). Monitoring well MW-25R to the west of the Phase 1A Cell has been dry since installation, so the elevation of the bottom of the well was used for comparison. The water level in monitoring well MW-05-8R to the south of the Phase 1A Cell measured during the March 2023 sampling event was used. These numbers are included in the table below.

Waste/Groundwater Separation

Elevation Source	Elevation (amsl)	Separation Distance (feet)
Bottom of waste	669.05	-
Bottom of MW-25R	653.09	15.96
Water elevation in MW-05-8R in March 2023	653.70	15.35

Based on the separation distances of 15.35 feet and 15.96 feet shown in the table above, it appears the base of the waste was at least 5 feet above the high water table in accordance with IAC 567-113.6"*i*" during this reporting period.

6.3 Corrective Action

In accordance with the approved corrective action groundwater monitoring program (CAMP), monitoring wells MW-90-11, MW-20, MW-24, and MW-33 were sampled for natural attenuation parameters during the 2022 reporting period. Monitoring well MW-32 did not produce a sample during the 2022 natural attenuation sampling so was sampled for natural attenuation during the 1st 2023 semi-annual sampling event. Natural attenuation parameters for monitoring wells MW-90-11, MW-20, MW-24, MW-32 and MW-33 are sampled biennially, with the next sampling and evaluation scheduled to occur during the 2024 reporting period. The natural attenuation analytical data is included on the last page of Appendix C-3.

The CAMP gas monitoring point "Phase E-1 cell gas vent" was monitored quarterly for landfill gas. Methane gas was measured at greater than 100% of the lower explosive limit (LEL) during the 1st, 3rd, and 4th quarters of 2023. A measurement of 57% of the LEL was measured during the 2nd quarter of 2023. These measurements demonstrate the gas vent is actively venting landfill gas as intended from the "old" waste underneath the Phase E-1 cell.

Section 7.0
Summary and Recommendations

7.1 Site Impact on Groundwater

No SSIs were identified in detection monitoring wells in the water table and bedrock monitoring networks and no SSLs were identified in assessment monitoring well MW-19 during this reporting period. The one VOC that was detected during this reporting period in the compliance monitoring wells was in AZPOC monitoring well MW-28.

Of the 81 total trends evaluated for the source monitoring wells, 44, or greater than 54%, had a Mann-Kendall statistic less than or equal to 0, which indicates a generally stable or decreasing trend.

7.2 Proposed Monitoring

Recommended monitoring for the next reporting period is included in Table 2.

7.3 Proposed Monitoring Well Changes

No changes to the monitoring wells are proposed at this time.

Tables

Table 1
Monitoring Program Summary
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Monitoring Well	Formation[1]	Current Monitoring Program	Change for next sampling event	Constituents with SSIs during the 2023 Reporting Period	Constituents with SSLs	Total # of Samples in each monitoring program		
						Detection inorganic #/organic #	Assessment inorganic #/organic #	Corrective Action inorganic #/organic #
Water Table Monitoring Network								
MW-06-7R	Clay	Background	No Change	Not applicable	Not Applicable	15/29		
MW-05-2	Clay	Detection/AZPOC	No Change	None*	Not Applicable	2/2		
MW-05-3	Clay	Detection/AZPOC	No Change	Not Applicable (no samples)	Not Applicable	0/0		
MW-05-8R	Sandy Silty Clay	Detection	No Change	None*	Not Applicable	7/7		
MW-19	Silty Clay	Assessment	No Change	Cadmium, Cobalt, Silver	None		17/32	
MW-25R	Sandy Silty Clay/Bedrock	Detection	No Change	Not Applicable (no samples)	Not Applicable	0/0		
MW-28	Bedrock	Detection/AZPOC	No Change	None*	Not Applicable	1/1		
MW-29	Sandy Silty Clay	Detection/AZPOC	No Change	None*	Not Applicable	3/3		
UD-2	Not Applicable	Detection	No Change	None (no samples this reporting period)	Not Applicable	1/1		
GU-1	Not Applicable	Treated with leachate	No Change	Not applicable (treated with leachate)	Not Applicable		5/5	
Bedrock Monitoring Network								
MW-39	Bedrock	Detection	No Change	None	Not Applicable	11/11		
MW-40	Bedrock	Detection	No Change	None	Not Applicable	11/11		
MW-41	Bedrock	Detection	No Change	None	Not Applicable	11/11		
MW-42	Bedrock	Detection	No Change	None	Not Applicable	11/11		
Supplemental Attenuation Zone Source Wells								
MW-90-11	Bedrock	Source Well	No Change	Not applicable	Not Applicable			17/30
MW-20	Clay/Sand	Source Well	No Change	Not applicable	Not Applicable			17/29
MW-24	Silty Clay/Sandy Clay/Clayey Sand	Source Well	No Change	Not applicable	Not Applicable			17/29
MW-32	Silty Clay/Bedrock	Source Well	No Change	Not applicable	Not Applicable			17/23
MW-33	Silty Clay/Silty Sandy Clay	Source Well	No Change	Not applicable	Not Applicable			19/34
Corrective Action Groundwater Monitoring Program								
MW-34	Sandy Silty Clay/Sand	Impact delineation monitoring point						
MW-90-18	Medium to Coarse Sand	Impact delineation monitoring point						
Water Level Measurement Wells								
MW-05-3	Not available	Water Level						
MW-21	Clay	Water Level						

Notes:
(1) Obtained from screened interval in boring logs.
SSI = Statistically Significant Increase above background.
SSL = Statistically Significant Level above groundwater protection standards.
* - See Section 6.0 of the narrative for a discussion of SSIs.

Table 2
Monitoring Program Implementation Schedule
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
Monitoring Well	**March 21-23, 2023 (1st 2023 Semi-Annual)**	**August 15, 17-18, 2023 (2nd 2023 Semi-Annual)**	**1st 2024 Semi-Annual**	**2nd 2024 Semi-Annual**	**Previously Collected**	**Next Event**
Water Table Monitoring Network						
MW-06-7R	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-05-2	Not Sampled - Dry	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-05-3	Not Sampled - Dry	Not Sampled - Dry	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-05-8R	Appendix I, TSS	Not Sampled - Dry	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-19	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	8/22/2013, 7/13/2016, 5/18/2021	2026
MW-25R	Not Sampled - Dry	Not Sampled - Dry	Appendix I,TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-28	Appendix I, TSS	Not Sampled - Dry	Appendix I,TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-29	Appendix I, TSS	Appendix I, TSS	Appendix I,TSS	Appendix I, TSS	Not Applicable	Not Applicable
UD-2	Not Sampled - Dry	Not Located	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
GU-1	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS		Not Applicable	Not Applicable
Bedrock Monitoring Network						
MW-39	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-40	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-41	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-42	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Not Applicable	Not Applicable
MW-43BG*	Appendix I, TSS	Appendix I, TSS	Water Level	Water Level	Not Applicable	Not Applicable

Table 2
Monitoring Program Implementation Schedule
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
Monitoring Well	**March 21-23, 2023 (1st 2023 Semi-Annual)**	**August 15, 17-18, 2023 (2nd 2023 Semi-Annual)**	**1st 2024 Semi-Annual**	**2nd 2024 Semi-Annual**	**Previously Collected**	**Next Event**
Supplemental Attenuation Zone Source Wells						
MW-90-11	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	3/15/2010, 9/14/2011, 3/29/2016, 5/20/2021	Not Applicable
MW-20	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	3/29/2016, 5/20/2021	Not Applicable
MW-24	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	6/30/2010, 9/14/2011, 3/29/2016, 5/19/2021	Not Applicable
MW-32	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	Appendix I, TSS, Natural Attenuation	Appendix I, TSS	4/7/2015, 3/29/2016, 5/18/2021	Not Applicable
MW-33	Appendix I, TSS, 2,4-D, 3/4-Methylphenol	Appendix I, TSS, 2,4-D, 3/4-Methylphenol	Appendix I, TSS, 2,4-D, 3/4-Methylphenol, Natural Attenuation	Appendix I, TSS, 2,4-D, 3/4-Methylphenol	7/28/2015, 7/13/2016, 5/18/2021	Not Applicable
CAMP Monitoring Points						
MW-34	Not Sampled - Dry	Not Sampled - Dry	Vinyl Chloride	Vinyl Chloride	Not Applicable	Not Applicable
MW-90-18	Vinyl Chloride	Vinyl Chloride	Vinyl Chloride	Vinyl Chloride	Not Applicable	Not Applicable
Phase E-1 Gas Vent	Methane Monitoring	Methane Monitoring	Methane Monitoring	Methane Monitoring	Not Applicable	Not Applicable
Water Level Wells						
MW-05-5	Water Level	Water Level	Water Level	Water Level	Not Applicable	Not Applicable
MW-21	Water Level	Water Level	Water Level	Water Level	Not Applicable	Not Applicable

TSS - Total Suspended Solids
Natural Attenuation includes total organic carbon, nitrate, manganese, iron, and sulfate.
* - Monitoring well MW-43 was removed from the HMSP sampling program.

Table 3
Monitoring Well Maintenance and Performance Revaluation Schedule
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Compliance with:	Monitoring Calendar Years				
	2021	2022	2023	2024	2025
567 IAC 113.10(2)"f"(1) high and low water levels (Biennial)		Completed		Scheduled	
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(3) well depths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (Biennial)		Completed		Scheduled	
Waste separation from ground water 113.6(2)"I"	Completed	Completed	See Table 4	Scheduled	Scheduled

Table 4
Monitoring Well Maintenance and Performance Summary
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East , South MSWLF Unit
Permit No. 23-SDP-01-74P

Well	Top of casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)
					3/2023	8/2023	
MW-06-7R	746.25	713.39	42.9	Groundwater Level (ft)	20.77	21.35	0.8
				Groundwater Elevation (Ft MSL)	725.48	724.90	
				Measured Well Depth (ft)	NM	42.1	
				Submerged screen	Y	Y	
MW-05-2	711.69	687.83	38.9	Groundwater Level (ft)	Dry	14.33	6.8
				Groundwater Elevation (Ft MSL)	NA	697.36	
				Measured Well Depth (ft)	NM	32.0	
				Submerged screen	N	Y	
MW-05-3	712.92	695.20	32.7	Groundwater Level (ft)	25.90	25.25	6.6
				Groundwater Elevation (Ft MSL)	687.02	687.67	
				Measured Well Depth (ft)	26.4	26.0	
				Submerged screen	N	N	
MW-05-8R	697.66	664.55	53.9	Groundwater Level (ft)	43.96	45.81	1.8
				Groundwater Elevation (Ft MSL)	653.70	651.85	
				Measured Well Depth (ft)	52.1	52.5	
				Submerged screen	N	N	
MW-90-11	707.60	687.60	30.9	Groundwater Level (ft)	8.06	14.14	-0.2
				Groundwater Elevation (Ft MSL)	699.54	693.46	
				Groundwater Elevation (Ft MSL)	31.4	30.9	
				Submerged screen	Y	Y	
MW-19	694.82	673.87	31.0	Groundwater Level (ft)	18.14	24.69	0.9
				Groundwater Elevation (Ft MSL)	676.68	670.13	
				Measured Well Depth (ft)	30.6	30.1	
				Submerged screen	Y	N	
MW-20	686.75	668.95	27.8	Groundwater Level (ft)	15.45	16.39	2.6
				Groundwater Elevation (Ft MSL)	671.30	670.36	
				Measured Well Depth (ft)	25.3	25.6	
				Submerged screen	Y	Y	
MW-24	707.27	689.57	37.7	Groundwater Level (ft)	12.92	16.82	2.1
				Groundwater Elevation (Ft MSL)	694.35	690.45	
				Measured Well Depth (ft)	35.6	36.2	
				Submerged screen	Y	Y	
MW-25R	702.79	663.05	49.7	Groundwater Level (ft)	49.97	Dry	-0.6
				Groundwater Elevation (Ft MSL)	652.82	NA	
				Measured Well Depth (ft)	51.0	NM	
				Submerged screen	N	N	
MW-28	665.63	642.18	33.5	Groundwater Level (ft)	24.45	24.99	NA
				Groundwater Elevation (Ft MSL)	641.18	640.64	
				Measured Well Depth (ft)	NM	30.5	
				Submerged screen	N	N	
MW-29	704.78	692.05	22.7	Groundwater Level (ft)	15.28	18.85	-0.4
				Groundwater Elevation (Ft MSL)	689.50	685.93	
				Measured Well Depth (ft)	23.1	23.1	
				Submerged screen	N	N	
MW-32	733.43	714.78	38.7	Groundwater Level (ft)	28.09	30.00	1.5
				Groundwater Elevation (Ft MSL)	705.34	703.43	
				Measured Well Depth (ft)	NM	37.3	
				Submerged screen	N	N	
MW-33	735.02	726.64	23.4	Groundwater Level (ft)	10.39	15.78	0.1
				Groundwater Elevation (Ft MSL)	724.63	719.24	
				Measured Well Depth (ft)	23.3	23.3	
				Submerged screen	N	N	
MW-39	673.62	560.60	118.0	Groundwater Level (ft)	43.49	41.44	-0.1
				Groundwater Elevation (Ft MSL)	630.13	632.18	
				Measured Well Depth (ft)	118.0	118.2	
				Submerged screen	Y	Y	
MW-40	718.09	630.20	92.9	Groundwater Level (ft)	73.62	63.68	-0.6
				Groundwater Elevation (Ft MSL)	644.47	654.41	
				Measured Well Depth (ft)	95.2	93.5	
				Submerged screen	Y	Y	
MW-41	718.27	612.80	110.5	Groundwater Level (ft)	57.63	58.98	0.5
				Groundwater Elevation (Ft MSL)	660.64	659.29	
				Measured Well Depth (ft)	110.4	111.3	
				Submerged screen	Y	Y	
MW-42	736.34	657.10	84.2	Groundwater Level (ft)	59.10	62.91	-0.1
				Groundwater Elevation (Ft MSL)	677.24	673.43	
				Measured Well Depth (ft)	84.3	84.3	
				Submerged screen	Y	Y	
MW-43BG	742.58	632.00	115.6	Groundwater Level (ft)	70.71	73.45	0.7
				Groundwater Elevation (Ft MSL)	671.87	669.13	
				Measured Well Depth (ft)	117.2	116.2	
				Submerged screen	Y	Y	

NM - Not Measured
NA - Not Applicable

Monitoring wells with dedicated sampling pumps are measured once every five years. However, if sampling is performed with a portable submersible pump, well depths are measured.

The well depths were generally within 1.8 feet of the installed depth with the following exceptions:

• MW-20 – Monitoring well MW-20 has an installed depth of 27.8 feet, but the depth measurements during the 2021 and 2022 sampling events were 25.2 feet. This monitoring well consistently measures shallower than the installed well depth.

• MW-24 – Monitoring well MW-24 has an installed depth of 37.7 feet but the depth measurements during the 2021 and 2022 sampling events were 35.5 feet. This monitoring well consistently measures shallower than the installed well depth.

• MW-05-2 and MW-05-3 - Monitoring wells MW-05-2 and MW-05-3 have not been part of the sampling program in the past. It is anticipated that the routine semi-annual sampling may remove sediment through regular purging. In addition, focused sediment removal methods will be employed if samples are unable to be consistently collected due to siltation.

It does not appear that siltation is adversely impacting the ability of the monitoring wells to consistently produce samples. However, the unusually dry weather conditions during this reporting period led to many wells being dry or without sufficient water for sampling. Monitoring well MW-25R, in the area affected by the groundwater underdrain, continued to be dry.

Groundwater Underdrain Piezometer

To evaluate the waste/groundwater separation distance, elevations were used from monitoring wells MW-25R and MW-05-8R and the bottom of the waste elevation was calculated from the Construction Observation Report, Phase 1A Cell Construction, dated September 28, 2011 (#66679). Monitoring well MW-25R to the west of the Phase 1A Cell has been dry since installation, so the elevation of the bottom of the well was used for comparison. The water level measured in monitoring well MW-05-8R to the south of the Phase 1A Cell during the March 2023 sampling event was used. These numbers are included in the table below.

Elevation Source	Elevation (amsl)	Separation Distance (feet)
Bottom of waste	669.05	-
Bottom of MW-25R	653.09	15.96
Water elevation in MW-05-8R in September 202	653.70	15.35

Based on the separation distances of 15.35 feet and 15.96 feet shown in the table above, it appears the base of the waste was at least 5 feet above the high water table in accordance with IAC 567-113.6”*i* ” during this reporting period.

Table 5
Background and GWPS Summary
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Water Table Interwell Background/GWPS (MW-06-7R)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	15	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00070	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	15	15	0.000593*	0.00725	0.00290	0.008423	PL (P)	0.01	MCL
Barium (Ba)	mg/L	15	15	0.0869	0.405	0.18873	0.5589	PL (P)	2	MCL
Beryllium (Be)	mg/L	15	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	15	3	0.00005 (1/2 RL)	0.00025 (1/2 RL)	0.00013	0.00025	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	15	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.1	MCL
Cobalt (Co)	mg/L	15	5	0.000064*	0.000377*	0.00022	0.000377	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	15	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	1.3	MCL
Lead (Pb)	mg/L	15	4	0.000163*	0.0021	0.00037	0.0021	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	15	1	0.0025 (1/2 RL)	0.00268*	0.00251	0.00268	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	15	2	0.0015*	0.0025 (1/2 RL)	0.00237	0.0025	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	15	2	0.0005 (1/2 RL)	0.00138	0.00058	0.00138	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	15	3	0.000265*	0.000895*	0.00053	0.000895	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	15	1	0.0019*	0.0025 (1/2 RL)	0.00246	0.0025	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	15	1	0.005 (1/2 RL)	0.01 (1/2 RL)	0.00936	0.01	PL (NP)	2	SWS

Bedrock Intrawell Background/GWPS (MW-39)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	8	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00069	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	8	2	0.001 (1/2 RL)	0.0031	0.00149	0.0031	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	8	8	0.318	0.703	0.43150	0.703	PL (NP)	2	MCL
Beryllium (Be)	mg/L	8	2	0.0005 (1/2 RL)	0.00208	0.00083	0.00208	PL (NP)	0.004	MCL
Cadmium (Cd)	mg/L	8	3	0.00005 (1/2 RL)	0.000648	0.00022	0.000648	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	8	6	0.00098	0.00833	0.00387	0.01175	PL (P)	0.1	MCL
Cobalt (Co)	mg/L	8	8	0.000299	0.0102	0.00303	0.02131	PL (P)	0.0021	SWS
Copper (Cu)	mg/L	8	3	0.0025 (1/2 RL)	0.0135	0.00446	0.0135	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	8	8	0.000374	0.0176	0.00479	0.1477	PL (P)	0.015	MCL
Nickel (Ni)	mg/L	8	4	0.00194	0.0227	0.00698	0.0227	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	8	2	0.00106	0.0025 (1/2 RL)	0.00227	0.0025	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.002	MCL
Vanadium (V)	mg/L	8	7	0.000863	0.0314	0.00880	0.07673	PL (P)	0.035	SWS
Zinc (Zn)	mg/L	8	3	0.01 (1/2 RL)	0.0755	0.02295	0.0755	PL (NP)	2	SWS

Bedrock Intrawell Background/GWPS (MW-40)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	8	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00069	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	8	0	0.001 (1/2 RL)	0.001 (1/2 RL)	0.00100	< 0.002	DQR	0.01	MCL
Barium (Ba)	mg/L	8	8	0.0144	0.0176	0.01614	0.01874	PL (P)	2	MCL
Beryllium (Be)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	8	0	0.00005 (1/2 RL)	0.00025 (1/2 RL)	0.00010	< 0.0005	DQR	0.005	MCL
Chromium (Cr)	mg/L	8	1	0.000832	0.0025 (1/2 RL)	0.00229	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	8	1	0.000125	0.00025 (1/2 RL)	0.00023	0.00025	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	1.3	MCL
Lead (Pb)	mg/L	8	0	0.00025 (1/2 RL)	0.00025 (1/2 RL)	0.00025	< 0.0005	DQR	0.015	MCL
Nickel (Ni)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.1	SWS
Selenium (Se)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.002	MCL
Vanadium (V)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.035	SWS
Zinc (Zn)	mg/L	8	0	0.01 (1/2 RL)	0.01 (1/2 RL)	0.01000	< 0.02	DQR	2	SWS

Bedrock Intrawell Background/GWPS (MW-41)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	8	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00069	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	8	8	0.00226	0.00274	0.00249	0.002923	PL (P)	0.01	MCL
Barium (Ba)	mg/L	8	8	0.155	0.171	0.16388	0.1781	PL (P)	2	MCL
Beryllium (Be)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	8	2	0.000048	0.00025 (1/2 RL)	0.00010	0.00025	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	8	2	0.000912	0.0043	0.00253	0.0043	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	8	8	0.00032	0.00051	0.00041	0.0005807	PL (P)	0.0021	SWS
Copper (Cu)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	1.3	MCL
Lead (Pb)	mg/L	8	4	0.000199	0.000869	0.00039	0.000869	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.1	SWS
Selenium (Se)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.002	MCL
Vanadium (V)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.035	SWS
Zinc (Zn)	mg/L	8	0	0.01 (1/2 RL)	0.01 (1/2 RL)	0.01000	< 0.02	DQR	2	SWS

Table 5
Background and GWPS Summary
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Bedrock Intrawell Background/GWPS (MW-42)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	8	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00069	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	8	0	0.001 (1/2 RL)	0.001 (1/2 RL)	0.00100	< 0.002	DQR	0.01	MCL
Barium (Ba)	mg/L	8	8	0.138	0.187	0.16963	0.2128	PL (P)	2	MCL
Beryllium (Be)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	8	0	0.00005 (1/2 RL)	0.00025 (1/2 RL)	0.00010	< 0.0005	DQR	0.005	MCL
Chromium (Cr)	mg/L	8	1	0.00167	0.0025 (1/2 RL)	0.00240	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	8	5	0.000095	0.000331	0.00021	0.0004407	PL (P)	0.0021	SWS
Copper (Cu)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	1.3	MCL
Lead (Pb)	mg/L	8	3	0.000241	0.00115	0.00044	0.00115	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	8	1	0.00169	0.0025 (1/2 RL)	0.00240	0.0025	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	8	8	0.00115	0.00264	0.00163	0.002836	PL (P)	0.05	MCL
Silver (Ag)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.002	MCL
Vanadium (V)	mg/L	8	1	0.000636	0.0025 (1/2 RL)	0.00227	0.0025	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	8	0	0.01 (1/2 RL)	0.01 (1/2 RL)	0.01000	< 0.02	DQR	2	SWS

Notes:

Background levels based on calculated prediction limits or half the reporting limit, as applicable.

* - Indicates J fflag. The concentration is above the method detection limit but below the reporting limit; the concentration is estimated.

Due to the likely influence of TSS concentrations on inorganic concentrations, MCLs or statewide standards are used as the GWPS even if the prediction limit is higher than the regulatory standards.

Acronyms/Abbreviations:

RL = Reporting Limit
GWPS = Groundwater Protection Standard (mg/L)
DQR = Double Quantification Rule
SSS = Site-Specific GWPS
SWS = Statewide Standard
PL = Prediction Limit
MCL = EPA Maximum Contaminant Level
NP = Non-Parametric
P = Parametric
NA = Not Applicable

1) Water quality results and effectiveness of the statistical data evaluation criteria: Statistical evaluations consist of prediction limits, double quantification rule, confidence intervals/confidence bands, as appropriate. Data from the background wells is not used for development of the confidence intervals or confidence bands.

2) Changes to the previous statistical method during reporting period: None.

3) Re-sampling strategy: Retesting is performed on a 1-of-2 scheme.

4) Justification for data exclusion: Inorganic data collected prior to the implementation of low-flow sampling in March 2016 and was excluded from statistical consideration. Removal of the MW-06-7R outlier (9/22/2015) in the 2022 SSN eliminated site-site specific GWPSs for arsenic and cobalt.

Table 6
Summary of Well/Detected Constituent Pairs With No Immediately Preceding SSIs
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Well	Constituent	Units	Most recent result	Background Standard
MW-05-8R*	Nickel	mg/L	0.00508	0.00268
	Silver	mg/L	0.00139	0.00138
	Thallium	mg/L	0.0012	0.000895
MW-19	Cadmium	mg/L	0.000279	0.00025
	Cobalt	mg/L	0.000557	0.000377
	Thallium	mg/L	0.00186	0.000895

Comments:

1) This table represents constituent/well pairs with indicated SSIs during the 2023 reporting period that did not have indicated SSIs during the 2022 reporting period.

2) Problems with the current detection network:

* - SSIs were indicated for nickel, thallium, and silver in monitoring well MW-05-8R during the 1st 2023 statistical evaluation. Despite the low concentrations, well below the corresponding GWPSs, the concentrations measured in March 2023 were higher than the prediction limits. In a telephone conversation on May 16, 2023, the DNR authorized not confirming the indicated SSIs at this time due to the low measured concentrations and no indication of impact in the monitoring well. Monitoring well MW-05-8R did not produce a sample during the August 2023 sampling event; analytical results and statistical conclusions will be re-evaluated following the next successful sampling attempt and statistical evaluation.

3) Schedule to implement remedies: None.

4) Alternative constituent or sample frequency changes: None.

5) Significant changes to calculated predication limits: Not applicable.

6) Resampling strategy: Retesting will be performed on a 1-of 2 retesting scheme.

Table 7
Summary of Ongoing and Newly Identified SSIs
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Well	Constituent	Units	Most recent result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
Water Table Monitoring Wells									
MW-05-8R*	Nickel	mg/L	0.00508	0.00268	Detection	0.1	3/21/2023	NA*	5/18/2021
	Silver	mg/L	0.00139	0.00138	Detection	0.1	3/21/2023	NA*	5/18/2021
	Thallium	mg/L	0.0012	0.000895	Detection	0.002	3/21/2023	NA*	5/18/2021
MW-19	Cadmium	mg/L	0.000279	0.00025	0.0001206	0.005	8/15/2023	NA	9/19/2017
	Cobalt	mg/L	0.000557	0.000377	0.000099	0.0021	8/15/2023	NA	9/19/2017
	Thallium	mg/L	0.00186	0.000895	0.000414	0.002	8/15/2023	NA	9/19/2017
MW-25R									
Bedrock Monitoring Wells									
MW-39	None								
MW-40	None								
MW-41	None								
MW-42	None								

Comments:

Shaded rows denote constituent/well pairs with SSIs indicated in 2023 that were not indicated in 2022. Unshaded rows denote constituent/well pairs with SSIs indicated during both the 2022 and 2023 reporting periods.
Detection - Confidence intervals are not calculated for monitoring wells in the detection monitoring program.
NA - Not applicable. Retesting is not performed for monitoring wells in the assessment monitoring program.

* - SSIs were indicated for nickel, thallium, and silver in monitoring well MW-05-8R during the 1st 2023 statistical evaluation. Despite the low concentrations, well below the corresponding GWPSs, the concentrations measured in March 2023 were higher than the prediction limits. In a telephone conversation on May 16, 2023, the DNR authorized not confirming the indicated SSIs at this time due to the low measured concentrations and no indication of impact in the monitoring well. Monitoring well MW-05-8R did not produce a sample during the August 2023 sampling event; analytical results and statistical conclusions will be re-evaluated following the next successful sampling attempt and statistical evaluation.

Comments:
1) Problems with the current assessment network: None.
2) Proposed remedies: Source control with monitored natural attenuation was the selected remedy (Doc #97615).
3) Alternative constituent or sample frequency changes: None.
4) Plume delineation strategies: See discussion of Figures 5, 6, 7, and 8.

Table 8
Summary of Ongoing and Newly Identified SSLs
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Well	Constituent	Units	Most recent result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS					
							1st Year		2nd Year		3rd Year	
None												

Notes:

* - Monitoring wells MW-90-11, MW-20, MW-24, MW-32, and MW-33 were transitioned to source characterization monitoring wells following the 1st 2022 statistical evaluation (Doc #103747).

Table 9
Analytical Data Summary
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

The Summary of Groundwater Chemistry for the water table HMSP monitoring network is located in Appendix C-1.
The Summary of Groundwater Chemistry for the bedrock HMSP monitoring network is located in Appendix C-2.
The Summary of Groundwater Chemistry for the source characterization monitoring wells is located in Appendix C-3.
The Summary of Groundwater Chemistry for the bracketing wells is located in Appendix C-4.

Table 10
Historical SSI and SSL
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Key

SSI - Statistically Significant Increase above background

SSL - Statistically Significant Level above groundwater protection standards

		Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Well	**Constituent**	2018	2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023
Water Table Monitoring Wells													
MW-05-2	None												
MW-05-3	None												
MW-05-8R	None												
MW-90-11*	Arsenic												
	Cobalt												
MW-19	None												
MW-20*	Arsenic												
	Barium												
	Cobalt												
MW-24*	1,2-Dichloropropane												
	Vinyl Chloride												
MW-25R	No samples												
MW-28	1,1-Dichloroethane												
MW-29	None												
MW-32*	Cobalt												
MW-33*	Cobalt												
Bedrock Monitoring Wells													
MW-39	None												
MW-40	None												
MW-41	None												
MW-42	None												

Notes:

1) SSIs are only recorded for the initial confirmed SSI measurement. SSIs are not confirmed for assessment monitoring wells.

2) The bedrock monitoring wells had sufficient samples for prediction limit analysis beginning with the fall 2020 statistical evaluation.

3) Detected SSIs are considered SSIs for the purposes of this table.

* - Monitoring wells MW-90-11, MW-20, MW-24, MW-32, and MW-33 were transitioned to source characterization monitoring wells following the 1st 2022 statistical evaluation (Doc #103747). The previously identified SSLs are no longer considered for the source characterization monitoring wells.

Table 11
Corrective Action Trend Analysis
2023 Annual Water Quality Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Well	Constituent	Trend	Calculated S	Critical S	N
Statistically Significant Trends in Source Wells					
MW-24	1,2-Dichloropropane	Decreasing	-24	-21	8
MW-32	cis-1,2-Dichloroethene	Decreasing	-22	-21	8

Overall Trends of Detected Appendix I Constituents in Source Wells						
	MW-20	MW-24	MW-32	MW-33	MW-90-11	Total
Increasing (S = >0):	7	7	7	6	10	37
Decreasing (S = ≤0):	8	9	13	8	6	44

Over 54% of the trends are stable or decreasing.
A summary table and graphs are included in Appendix K.
AZPOC monitoring wells MW-05-2, MW-05-3, MW-28, and MW-29 do not yet have sufficient data to perform Mann-Kendall trend analysis.

Notes:
N - Number of Samples
S - Mann-Kendall Statistic

Comments:
1) The approved remedy is monitored natural attenuation and leachate extraction (Doc #98166).

Figures

HMSP Points	Monitoring Program
MW-06-7R	Background
MW-05-2 (AZPOC)	Detection
MW-05-3 (AZPOC)	Detection
MW-05-8R	Detection
MW-90-11	Source Characterization
MW-19	Assessment
MW-20	Source Characterization
MW-24	Source Characterization
MW-25R	Detection
MW-28 (AZPOC)	Detection
MW-29 (AZPOC)	Detection
MW-32	Source Characterization
MW-33	Source Characterization
GU-1	Treated with Leachate
UD-2	Detection
Bedrock Wells	
MW-39	Detection
MW-40	Detection
MW-41	Detection
MW-42	Detection

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Approved Monitoring Network

Figure 1

Legend

- HMSP Monitoring Well
- HMSP Groundwater Underdrain
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

N W E S

0 260 520 1,040 1,560 Feet

GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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Shallow Groundwater Contours

Legend

- Groundwater Contours Based on Field Measurements Taken August 18, 2023
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

Figure 2

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Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Sources: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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Bedrock Groundwater Contours

Legend

- Approximate Bedrock Contours Based on Field Measurments Taken August 18, 2023
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
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Figure 3

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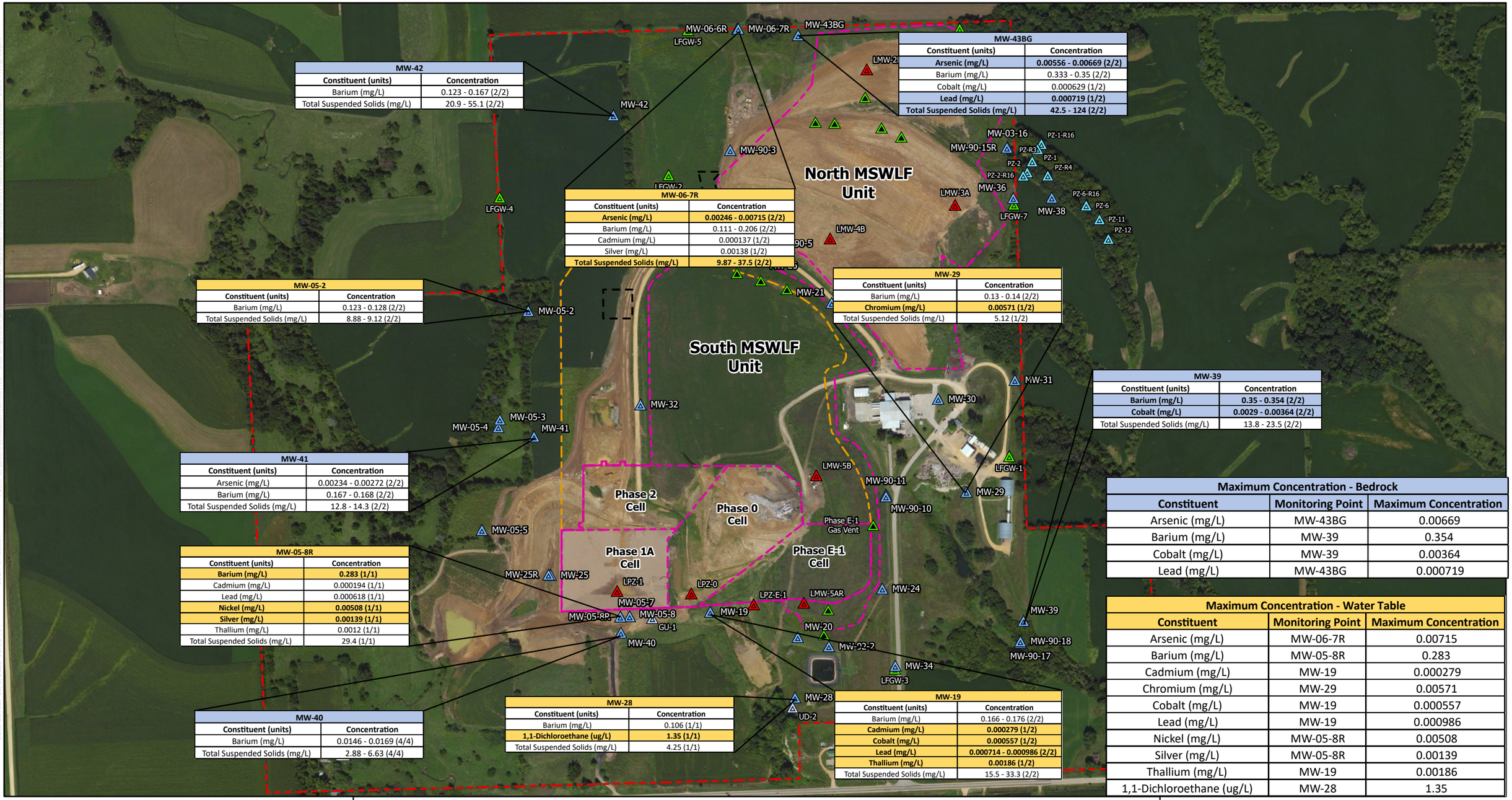

MW-42	
Constituent (units)	Concentration
Barium (mg/L)	0.123 - 0.167 (2/2)
Total Suspended Solids (mg/L)	20.9 - 55.1 (2/2)

MW-43BG	
Constituent (units)	Concentration
Arsenic (mg/L)	**0.00556 - 0.00669 (2/2)**
Barium (mg/L)	0.333 - 0.35 (2/2)
Cobalt (mg/L)	0.000629 (1/2)
Lead (mg/L)	**0.000719 (1/2)**
Total Suspended Solids (mg/L)	**42.5 - 124 (2/2)**

MW-06-7R	
Constituent (units)	Concentration
Arsenic (mg/L)	**0.00246 - 0.00715 (2/2)**
Barium (mg/L)	0.111 - 0.206 (2/2)
Cadmium (mg/L)	0.000137 (1/2)
Silver (mg/L)	0.00138 (1/2)
Total Suspended Solids (mg/L)	**9.87 - 37.5 (2/2)**

MW-05-2	
Constituent (units)	Concentration
Barium (mg/L)	0.123 - 0.128 (2/2)
Total Suspended Solids (mg/L)	8.88 - 9.12 (2/2)

MW-29	
Constituent (units)	Concentration
Barium (mg/L)	0.13 - 0.14 (2/2)
Chromium (mg/L)	**0.00571 (1/2)**
Total Suspended Solids (mg/L)	5.12 (1/2)

MW-39	
Constituent (units)	Concentration
Barium (mg/L)	**0.35 - 0.354 (2/2)**
Cobalt (mg/L)	**0.0029 - 0.00364 (2/2)**
Total Suspended Solids (mg/L)	13.8 - 23.5 (2/2)

MW-41	
Constituent (units)	Concentration
Arsenic (mg/L)	0.00234 - 0.00272 (2/2)
Barium (mg/L)	0.167 - 0.168 (2/2)
Total Suspended Solids (mg/L)	12.8 - 14.3 (2/2)

MW-05-8R	
Constituent (units)	Concentration
Barium (mg/L)	**0.283 (1/1)**
Cadmium (mg/L)	0.000194 (1/1)
Lead (mg/L)	0.000618 (1/1)
Nickel (mg/L)	**0.00508 (1/1)**
Silver (mg/L)	**0.00139 (1/1)**
Thallium (mg/L)	0.0012 (1/1)
Total Suspended Solids (mg/L)	29.4 (1/1)

MW-40	
Constituent (units)	Concentration
Barium (mg/L)	0.0146 - 0.0169 (4/4)
Total Suspended Solids (mg/L)	2.88 - 6.63 (4/4)

MW-28	
Constituent (units)	Concentration
Barium (mg/L)	0.106 (1/1)
1,1-Dichloroethane (ug/L)	**1.35 (1/1)**
Total Suspended Solids (mg/L)	4.25 (1/1)

MW-19	
Constituent (units)	Concentration
Barium (mg/L)	0.166 - 0.176 (2/2)
Cadmium (mg/L)	**0.000279 (1/2)**
Cobalt (mg/L)	**0.000557 (1/2)**
Lead (mg/L)	**0.000714 - 0.000986 (2/2)**
Thallium (mg/L)	**0.00186 (1/2)**
Total Suspended Solids (mg/L)	15.5 - 33.3 (2/2)

Maximum Concentration - Bedrock		
Constituent	Monitoring Point	Maximum Concentration
Arsenic (mg/L)	MW-43BG	0.00669
Barium (mg/L)	MW-39	0.354
Cobalt (mg/L)	MW-39	0.00364
Lead (mg/L)	MW-43BG	0.000719

Maximum Concentration - Water Table		
Constituent	Monitoring Point	Maximum Concentration
Arsenic (mg/L)	MW-06-7R	0.00715
Barium (mg/L)	MW-05-8R	0.283
Cadmium (mg/L)	MW-19	0.000279
Chromium (mg/L)	MW-29	0.00571
Cobalt (mg/L)	MW-19	0.000557
Lead (mg/L)	MW-19	0.000986
Nickel (mg/L)	MW-05-8R	0.00508
Silver (mg/L)	MW-05-8R	0.00139
Thallium (mg/L)	MW-19	0.00186
1,1-Dichloroethane (ug/L)	MW-28	1.35

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Reporting Period Detection Summary

Figure 4

Legend

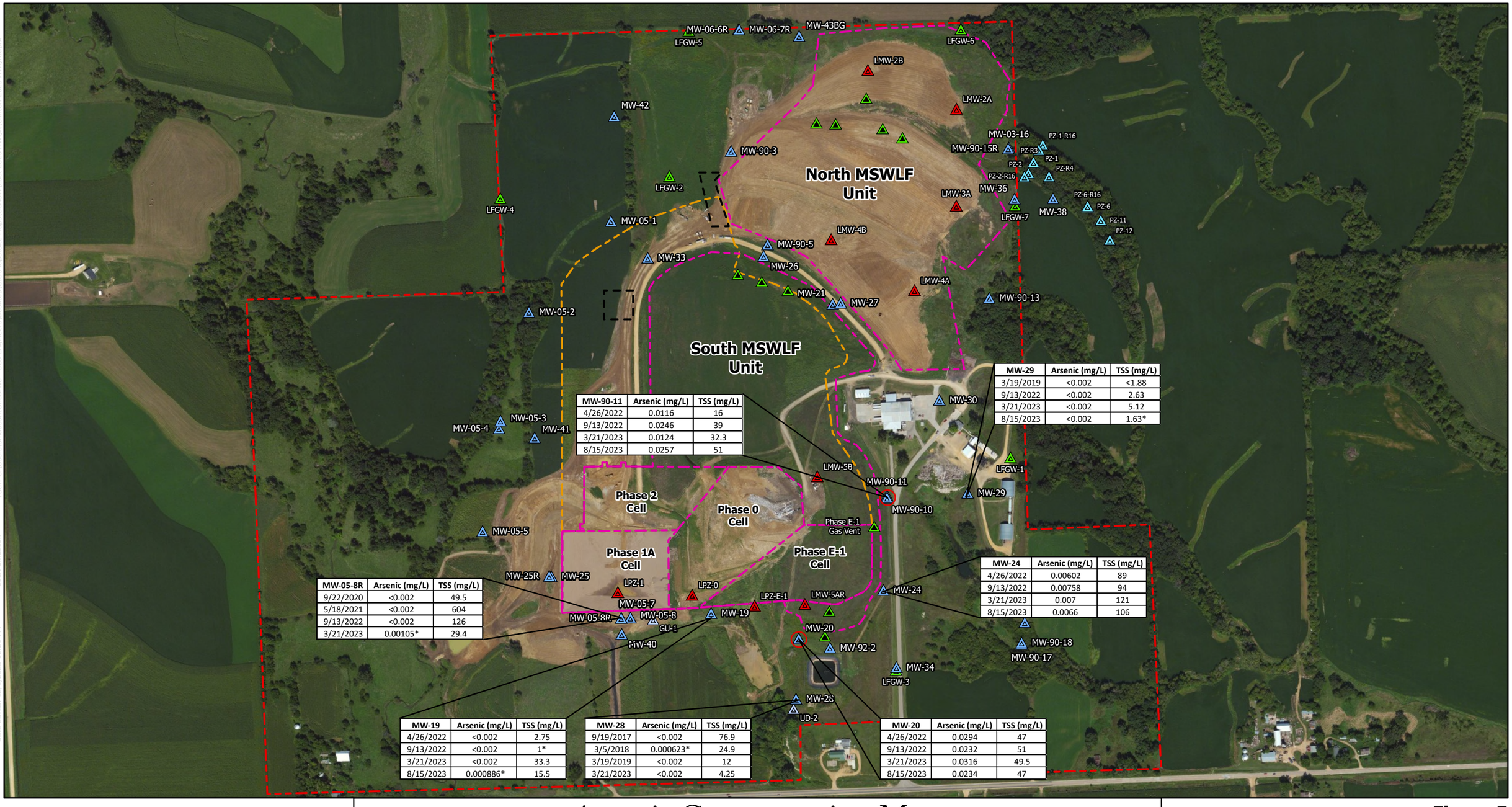
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

N W E S

0 260 520 1,040 1,560 Feet

GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community



MW-29	Arsenic (mg/L)	TSS (mg/L)
3/19/2019	<0.002	<1.88
9/13/2022	<0.002	2.63
3/21/2023	<0.002	5.12
8/15/2023	<0.002	1.63*

MW-90-11	Arsenic (mg/L)	TSS (mg/L)
4/26/2022	0.0116	16
9/13/2022	0.0246	39
3/21/2023	0.0124	32.3
8/15/2023	0.0257	51

MW-24	Arsenic (mg/L)	TSS (mg/L)
4/26/2022	0.00602	89
9/13/2022	0.00758	94
3/21/2023	0.007	121
8/15/2023	0.0066	106

MW-05-8R	Arsenic (mg/L)	TSS (mg/L)
9/22/2020	<0.002	49.5
5/18/2021	<0.002	604
9/13/2022	<0.002	126
3/21/2023	0.00105*	29.4

MW-19	Arsenic (mg/L)	TSS (mg/L)
4/26/2022	<0.002	2.75
9/13/2022	<0.002	1*
3/21/2023	<0.002	33.3
8/15/2023	0.000886*	15.5

MW-28	Arsenic (mg/L)	TSS (mg/L)
9/19/2017	<0.002	76.9
3/5/2018	0.000623*	24.9
3/19/2019	<0.002	12
3/21/2023	<0.002	4.25

MW-20	Arsenic (mg/L)	TSS (mg/L)
4/26/2022	0.0294	47
9/13/2022	0.0232	51
3/21/2023	0.0316	49.5
8/15/2023	0.0234	47

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Arsenic Concentration Map

Figure 5

Legend

- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- SSL Well
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Arsenic Prediction Limit = 0.008423 mg/L

* J Flag concentrations are not included in the lists of detected parameters

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

N W E S

0 260 520 1,040 1,560 Feet

Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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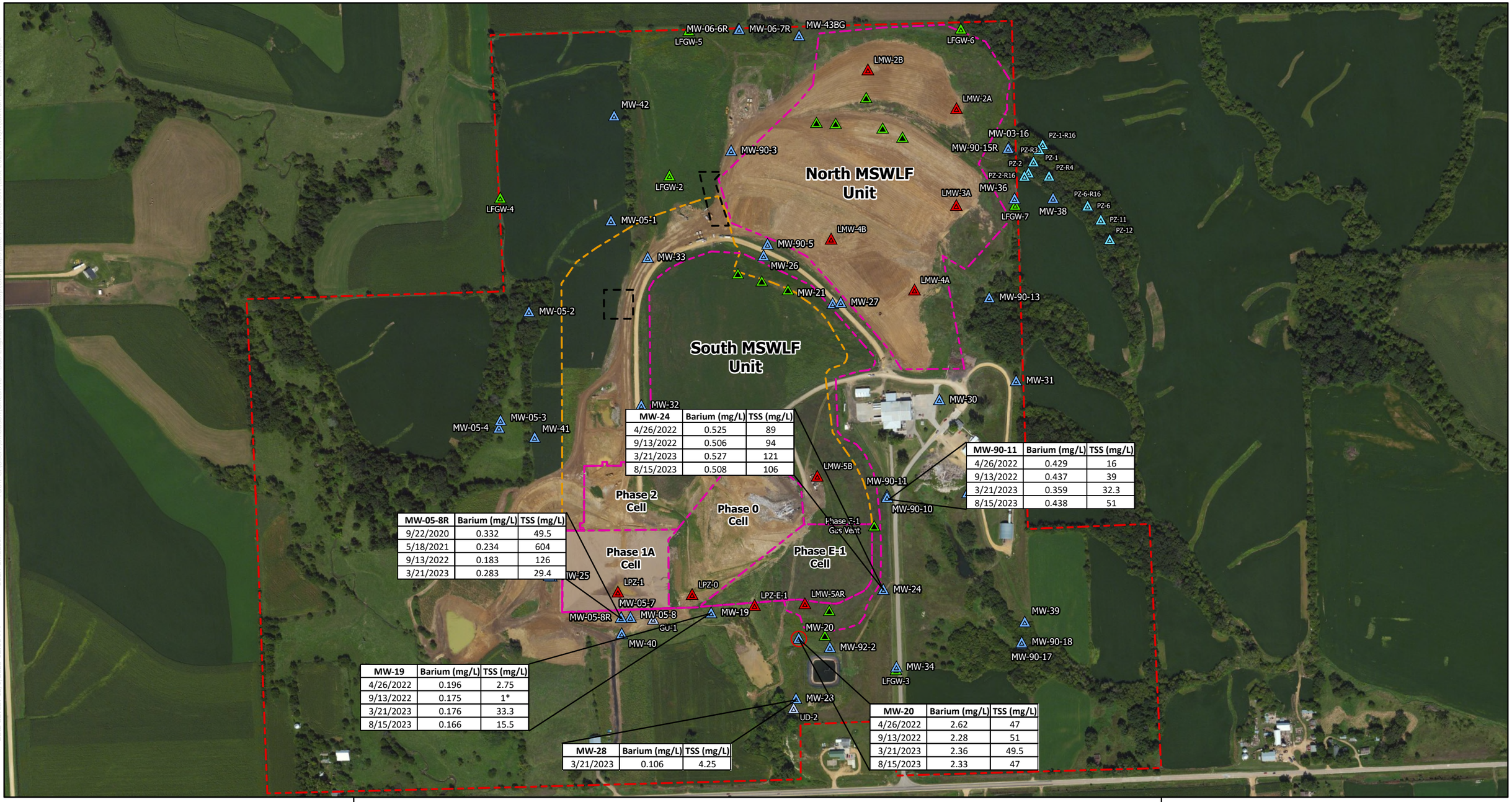

MW-24	Barium (mg/L)	TSS (mg/L)
4/26/2022	0.525	89
9/13/2022	0.506	94
3/21/2023	0.527	121
8/15/2023	0.508	106

MW-90-11	Barium (mg/L)	TSS (mg/L)
4/26/2022	0.429	16
9/13/2022	0.437	39
3/21/2023	0.359	32.3
8/15/2023	0.438	51

MW-05-8R	Barium (mg/L)	TSS (mg/L)
9/22/2020	0.332	49.5
5/18/2021	0.234	604
9/13/2022	0.183	126
3/21/2023	0.283	29.4

MW-19	Barium (mg/L)	TSS (mg/L)
4/26/2022	0.196	2.75
9/13/2022	0.175	1*
3/21/2023	0.176	33.3
8/15/2023	0.166	15.5

MW-28	Barium (mg/L)	TSS (mg/L)
3/21/2023	0.106	4.25

MW-20	Barium (mg/L)	TSS (mg/L)
4/26/2022	2.62	47
9/13/2022	2.28	51
3/21/2023	2.36	49.5
8/15/2023	2.33	47

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Barium Concentration Map

Figure 6

Legend

- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- SSL Well
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Barium Prediction Limit = 0.5589 mg/L

* J Flag concentrations are not included in the lists of detected parameters

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

N W E S

0 260 520 1,040 1,560 Feet

Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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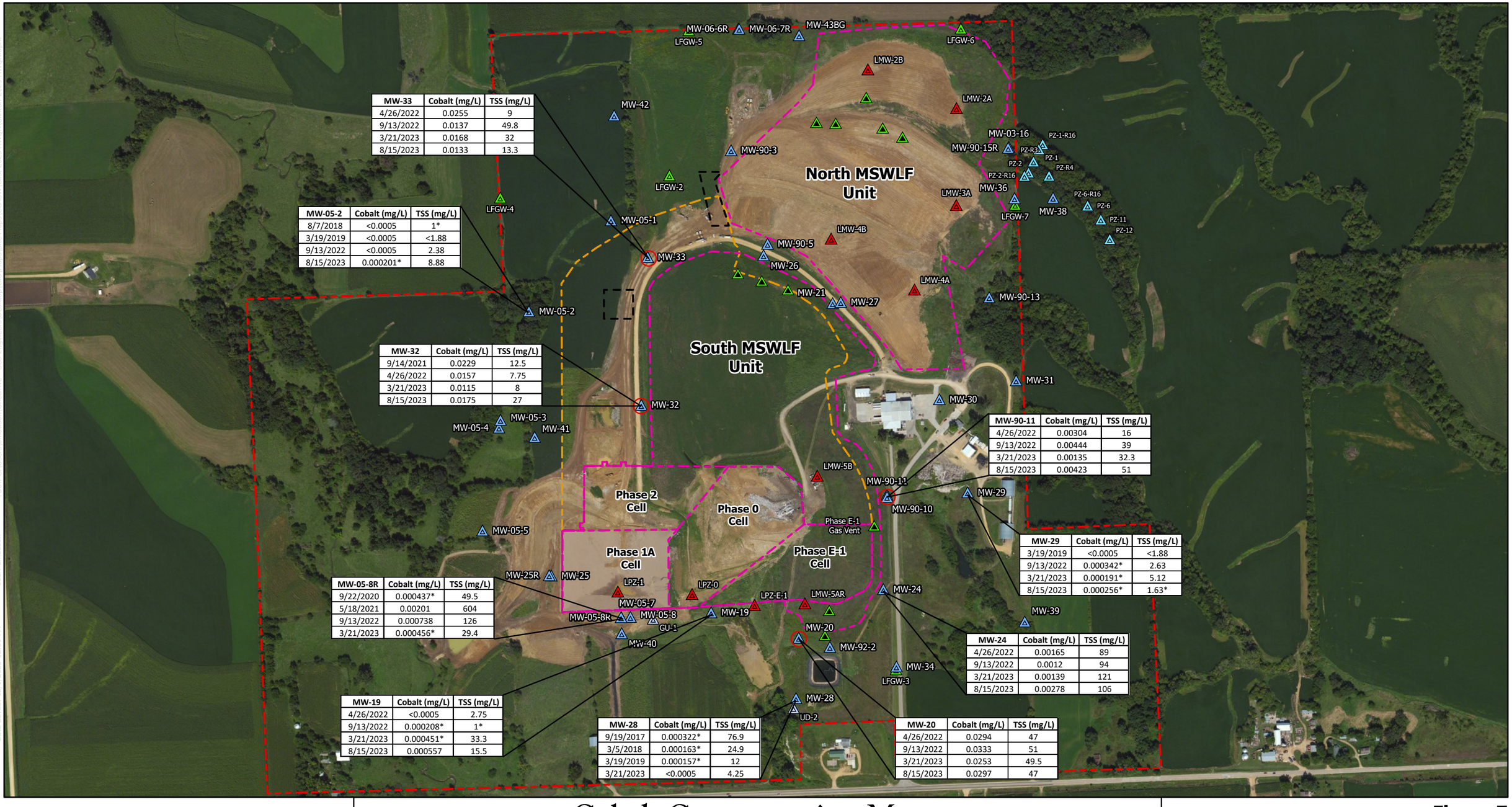

MW-33	Cobalt (mg/L)	TSS (mg/L)
4/26/2022	0.0255	9
9/13/2022	0.0137	49.8
3/21/2023	0.0168	32
8/15/2023	0.0133	13.3

MW-05-2	Cobalt (mg/L)	TSS (mg/L)
8/7/2018	<0.0005	1*
3/19/2019	<0.0005	<1.88
9/13/2022	<0.0005	2.38
8/15/2023	0.000201*	8.88

MW-32	Cobalt (mg/L)	TSS (mg/L)
9/14/2021	0.0229	12.5
4/26/2022	0.0157	7.75
3/21/2023	0.0115	8
8/15/2023	0.0175	27

MW-90-11	Cobalt (mg/L)	TSS (mg/L)
4/26/2022	0.00304	16
9/13/2022	0.00444	39
3/21/2023	0.00135	32.3
8/15/2023	0.00423	51

MW-29	Cobalt (mg/L)	TSS (mg/L)
3/19/2019	<0.0005	<1.88
9/13/2022	0.000342*	2.63
3/21/2023	0.000191*	5.12
8/15/2023	0.000256*	1.63*

MW-05-8R	Cobalt (mg/L)	TSS (mg/L)
9/22/2020	0.000437*	49.5
5/18/2021	0.00201	604
9/13/2022	0.000738	126
3/21/2023	0.000456*	29.4

MW-24	Cobalt (mg/L)	TSS (mg/L)
4/26/2022	0.00165	89
9/13/2022	0.0012	94
3/21/2023	0.00139	121
8/15/2023	0.00278	106

MW-19	Cobalt (mg/L)	TSS (mg/L)
4/26/2022	<0.0005	2.75
9/13/2022	0.000208*	1*
3/21/2023	0.000451*	33.3
8/15/2023	0.000557	15.5

MW-28	Cobalt (mg/L)	TSS (mg/L)
9/19/2017	0.000322*	76.9
3/5/2018	0.000163*	24.9
3/19/2019	0.000157*	12
3/21/2023	<0.0005	4.25

MW-20	Cobalt (mg/L)	TSS (mg/L)
4/26/2022	0.0294	47
9/13/2022	0.0333	51
3/21/2023	0.0253	49.5
8/15/2023	0.0297	47

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Cobalt Concentration Map

Figure 7

Legend

- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- SSL Well
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Cobalt Prediction Limit = 0.000377 mg/L

* J Flag concentrations are not included in the lists of detected parameters

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

N W E S

0 260 520 1,040 1,560 Feet

Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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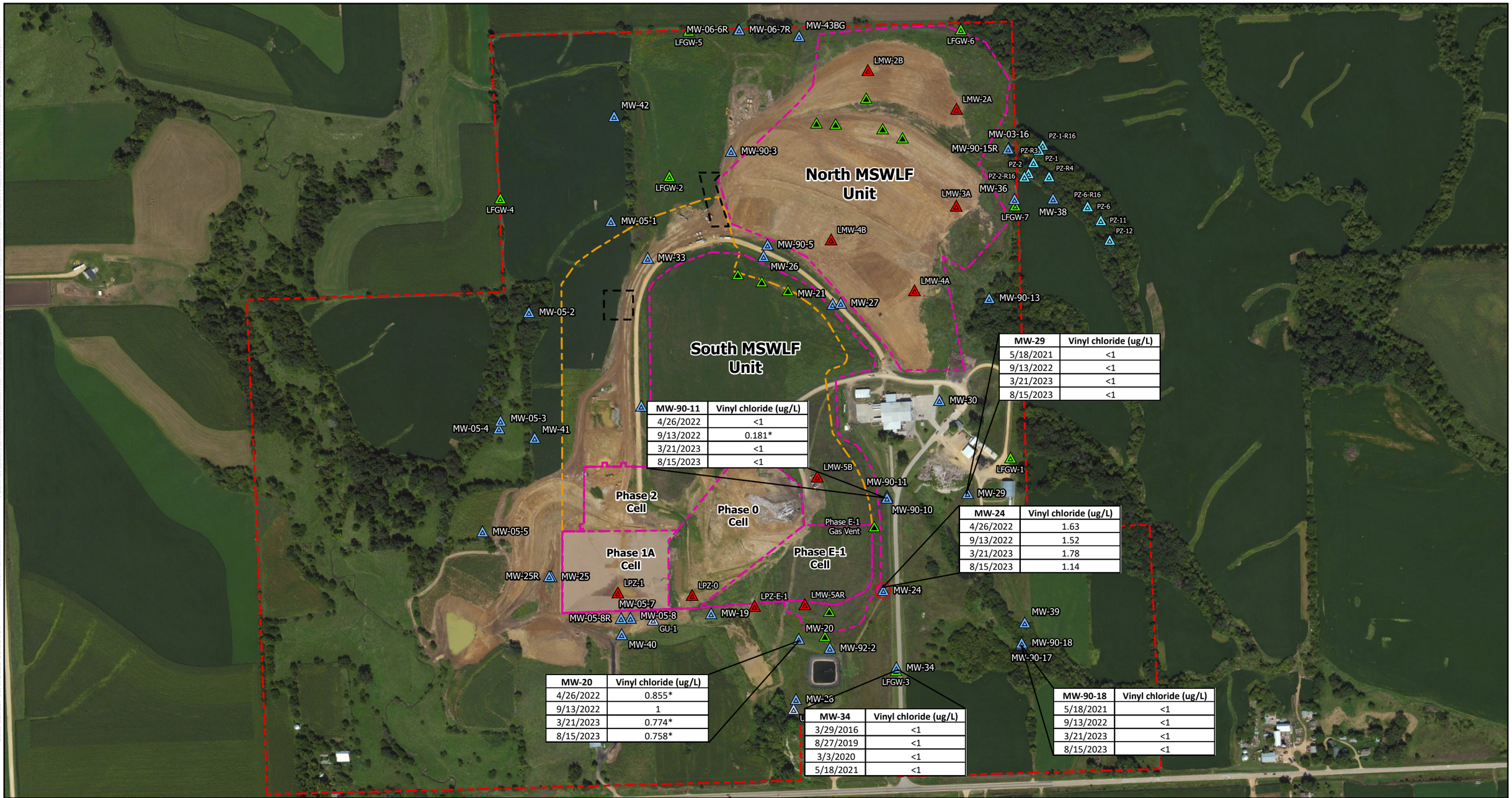

MW-29	Vinyl chloride (ug/L)
5/18/2021	<1
9/13/2022	<1
3/21/2023	<1
8/15/2023	<1

MW-90-11	Vinyl chloride (ug/L)
4/26/2022	<1
9/13/2022	0.181*
3/21/2023	<1
8/15/2023	<1

MW-24	Vinyl chloride (ug/L)
4/26/2022	1.63
9/13/2022	1.52
3/21/2023	1.78
8/15/2023	1.14

MW-20	Vinyl chloride (ug/L)
4/26/2022	0.855*
9/13/2022	1
3/21/2023	0.774*
8/15/2023	0.758*

MW-34	Vinyl chloride (ug/L)
3/29/2016	<1
8/27/2019	<1
3/3/2020	<1
5/18/2021	<1

MW-90-18	Vinyl chloride (ug/L)
5/18/2021	<1
9/13/2022	<1
3/21/2023	<1
8/15/2023	<1

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Vinyl Chloride Concentration Map

Figure 8

Legend

- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- SSL Well
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Vinyl Chloride Prediction Limit = < 1 ug/L

* J Flag concentrations are not included in the lists of detected parameters

Clinton County Sanitary Landfill - East
South MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

N W E S

0 260 520 1,040 1,560 Feet

GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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Appendix A
Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-06-7R**	Date:	**3/21/2023**
Gradient: Up		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	20.77
Initial Groundwater Elevation (ft-amsl):	725.48
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
10:20 AM	Purging start time.						
10:23 AM	10.1	1.4	508.8	7.39	-115.5	28.2	
10:26 AM	10.3	0.8	509.0	7.34	-122.4	12.8	
10:29 AM	10.4	0.7	509.7	7.32	-125.8	9.0	
10:32 AM	10.5	0.6	510.1	7.32	-128.1	6.9	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	183.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No
If yes, explain:	

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-05-3**	Date:	**3/22/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	26.0
Initial Static Water Level (feet):	25.90
Initial Groundwater Elevation (ft-amsl):	687.02
Equipment Used:	NA

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Insufficient water to sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-05-8R**	Date:	**3/21/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	52.1
Initial Static Water Level (feet):	43.96
Initial Groundwater Elevation (ft-amsl):	653.70
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
3:20 PM	Purging start time.						
3:23 PM	12.6	10.3	1198.1	8.03	-4.6	65.6	
3:26 PM	13.5	10.2	1197.4	7.98	-0.6	50.9	
3:29 PM	13.1	10.3	1200.1	7.98	4.0	33.3	
3:32 PM	13.8	10.2	1203.5	7.96	7.0	24.0	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.6
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	216.67

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-90-11**	Date:	**3/21/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	31.4
Initial Static Water Level (feet):	8.06
Initial Groundwater Elevation (ft-amsl):	699.54
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
12:25 PM	Purging start time.						
12:28 PM	10.2	2.5	1429.8	6.91	57.0	91.1	
12:31 PM	10.4	2.1	1432.4	6.89	55.6	128.9	
12:34 PM	10.5	1.9	1433.7	6.88	41.9	109.2	
12:37 PM	10.4	1.8	1434.8	6.87	19.6	101.4	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	183.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-19**	Date:	**3/22/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	30.6
Initial Static Water Level (feet):	18.14
Initial Groundwater Elevation (ft-amsl):	668.68
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
10:50 AM	Purging start time.						
10:53 AM	10.5	4.6	1296.4	6.73	61.4	78.9	
10:56 AM	10.6	4.1	1304.0	6.77	67.2	61.5	
10:59 AM	10.6	4.0	1305.4	6.79	71.0	61.1	
11:02 AM	10.6	3.9	1306.5	6.80	73.6	49.5	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE

Does the well require any future maintenance?	Yes
If yes, explain:	Metal plate cover on top of well casing has fallen off and will need to be replaced.
Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-20**	Date:	**3/22/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	25.3
Initial Static Water Level (feet):	15.45
Initial Groundwater Elevation (ft-amsl):	671.30
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
11:21 AM	Purging start time.						
11:24 AM	9.8	2.0	2130.1	6.45	-58.0	37.5	
11:27 AM	9.9	1.0	2139.7	6.48	-61.2	23.2	
11:30 AM	9.9	0.8	2138.4	6.49	-64.4	14.2	
11:33 AM	9.9	0.7	2123.4	6.51	-67.8	10.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-24**	Date:	**3/22/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	35.6
Initial Static Water Level (feet):	12.92
Initial Groundwater Elevation (ft-amsl):	694.35
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
11:52 AM	Purging start time.						
11:55 AM	10.4	1.7	1801.1	6.66	-83.3	29.5	
11:58 AM	10.5	1.0	1808.0	6.66	-89.6	24.3	
12:01 PM	10.5	0.7	1809.4	6.67	-93.2	21.5	
12:04 PM	10.5	0.6	1807.3	6.67	-95.7	21.7	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-25R**	Date:	**3/22/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	51.0
Initial Static Water Level (feet):	49.97
Initial Groundwater Elevation (ft-amsl):	652.82
Equipment Used:	NA

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Insufficient water to sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-28**	Date:	**3/21/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	24.45
Initial Groundwater Elevation (ft-amsl):	641.18
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
11:44 AM	Purging start time.						
11:47 AM	10.2	9.4	619.0	7.38	8.4	130.7	
11:50 AM	10.5	8.8	652.6	7.17	19.6	56.9	
11:53 AM	10.8	8.3	680.8	7.07	31.9	24.8	
11:56 AM	11.0	7.6	723.9	7.01	39.7	13.2	
11:59 AM	10.8	6.9	772.4	6.96	45.0	9.0	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	4.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	18:00
Average Purge Rate (mL/min):	222.22

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-29**	Date:	**3/22/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	23.1
Initial Static Water Level (feet):	15.28
Initial Groundwater Elevation (ft-amsl):	689.50
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
12:41 PM	Purging start time.						
12:44 PM	9.6	6.5	855.3	7.18	-40.6	7.1	
12:47 PM	9.6	6.1	843.8	7.12	-13.9	6.2	
12:50 PM	9.7	5.9	844.9	7.10	2.4	6.6	
12:53 PM	9.6	5.9	846.3	7.09	14.1	6.4	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-32**	Date:	**3/21/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	28.09
Initial Groundwater Elevation (ft-amsl):	705.34
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
2:04 PM	Purging start time.						
2:07 PM	12.1	1.1	922.5	6.84	-63.5	6.5	
2:10 PM	12.5	0.8	922.9	6.79	-63.5	7.5	
2:13 PM	12.2	0.7	925.5	6.77	-63.7	4.7	
2:16 PM	12.7	0.6	929.1	6.74	-64.4	4.6	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-33**	Date:	**3/22/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	23.3
Initial Static Water Level (feet):	10.39
Initial Groundwater Elevation (ft-amsl):	724.63
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
3:56 PM	Purging start time.						
3:59 PM	9.5	1.2	1259.7	6.67	-62.4	19.8	
4:02 PM	9.5	0.8	1260.2	6.68	-68.3	14.4	
4:05 PM	9.3	0.7	1260.0	6.69	-72.9	10.7	
4:08 PM	9.3	0.6	1259.4	6.69	-76.7	10.2	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-39**	Date:	**3/21/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	118.0
Initial Static Water Level (feet):	43.49
Initial Groundwater Elevation (ft-amsl):	630.14
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
11:09 AM	Purging start time.						
11:12 AM	10.8	1.3	651.6	7.20	-90.1	15.7	
11:15 AM	10.7	0.9	652.0	7.17	-92.7	19.6	
11:18 AM	10.8	0.7	652.0	7.16	-94.1	19.2	
11:21 AM	11.0	0.6	650.9	7.15	-94.7	17.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	3.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	258.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No
If yes, explain:	

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-40**	Date:	**3/21/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	95.2
Initial Static Water Level (feet):	73.62
Initial Groundwater Elevation (ft-amsl):	644.47
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
4:09 PM	Purging start time.						
4:12 PM	11.3	4.2	687.3	7.49	-2.3	12.9	
4:15 PM	11.4	3.7	683.1	7.37	9.0	10.8	
4:18 PM	11.6	3.4	684.9	7.33	13.2	9.6	
4:21 PM	11.4	3.5	686.0	7.31	17.5	7.9	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-41**	Date:	**3/21/2023**
Gradient: Down		Sampler:	Scott Stoller

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	110.4
Initial Static Water Level (feet):	57.63
Initial Groundwater Elevation (ft-amsl):	660.64
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
2:38 PM	Purging start time.						
2:41 PM	11.9	1.7	751.3	7.43	-101.6	27.8	
2:44 PM	11.8	1.0	751.0	7.33	-93.8	40.1	
2:47 PM	11.5	0.8	751.5	7.28	-83.1	27.5	
2:50 PM	11.8	0.6	750.4	7.24	-73.4	14.0	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-90-18**	Date:	**3/22/2023**
Gradient: Down		Sampler: Scott Stoller	

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	25.3
Initial Static Water Level (feet):	3.29
Initial Groundwater Elevation (ft-amsl):	652.87
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
1:12 PM	Purging start time.						
1:15 PM	6.9	8.9	831.1	8.00	8.6	7.9	
1:18 PM	6.9	8.7	834.3	8.04	10.3	8.0	
1:21 PM	6.7	8.6	829.4	8.06	12.4	13.1	
1:24 PM	6.5	8.6	824.2	8.08	14.1	21.0	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-06-7R**	Date:	**8/16/2023**
Gradient: Up		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	42.1
Initial Static Water Level (feet):	21.35
Initial Groundwater Elevation (ft-amsl):	724.90
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
11:39 AM	Purging start time.						
11:42 AM	15.4	2.4	550.8	8.18	-34.0	301.6	
11:45 AM	14.5	1.7	537.8	8.12	-41.1	181.0	
11:48 AM	13.3	1.3	535.4	8.17	-42.9	128.1	
11:51 AM	13.4	1.0	536.2	8.13	-45.4	136.0	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	225.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-05-2**	Date:	**8/16/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	32.0
Initial Static Water Level (feet):	14.33
Initial Groundwater Elevation (ft-amsl):	697.36
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
7:51 PM	Purging start time.						
7:54 PM	12.6	5.9	828.7	8.06	179.3	24.9	
7:57 PM	12.3	5.3	824.5	7.90	183.7	21.3	
8:00 PM	12.4	5.2	823.5	7.84	185.4	20.2	
8:03 PM	12.1	5.2	823.6	7.84	186.4	22.3	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	191.67

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-05-3**	Date:	**8/16/2023**
Gradient: Down		Sampler: Caleb Gomez	

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	26.0
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
Equipment Used:	NA

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	NA
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was dry.

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-05-8R**	Date:	**8/16/2023**
Gradient: Down		Sampler:	Caleb Gomez

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	52.5
Initial Static Water Level (feet):	45.81
Initial Groundwater Elevation (ft-amsl):	651.85
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	Yes
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was pumped dry while purging.

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-90-11**	Date:	**8/15/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	30.9
Initial Static Water Level (feet):	14.14
Initial Groundwater Elevation (ft-amsl):	693.46
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
4:22 PM	Purging start time.						
4:25 PM	15.5	2.0	1608.8	7.89	-31.0	67.1	
4:28 PM	15.9	1.2	1606.3	7.35	-21.0	65.8	
4:31 PM	15.8	0.9	1610.2	7.21	-15.7	62.2	
4:34 PM	15.6	0.7	1612.0	7.17	-12.8	56.5	
4:37 PM	15.5	0.7	1608.0	7.16	-10.7	54.7	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	140.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-19**	Date:	**8/15/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	30.1
Initial Static Water Level (feet):	24.69
Initial Groundwater Elevation (ft-amsl):	662.13
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
12:23 PM	Purging start time.						
12:26 PM	20.4	1.7	1442.0	6.80	74.3	40.3	
12:29 PM	19.8	1.1	1419.1	6.64	97.4	26.1	
12:32 PM	19.5	0.9	1418.1	6.67	112.0	18.5	
12:35 PM	19.6	0.8	1409.4	6.66	123.0	16.9	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.6
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	133.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	Yes
If yes, explain:	Needs labeled and new metal cap to enclose top.
Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-20**	Date:	**8/15/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	25.1
Initial Static Water Level (feet):	16.39
Initial Groundwater Elevation (ft-amsl):	670.36
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
11:11 AM	Purging start time.						
11:14 AM	15.9	1.7	2475.2	7.04	-28.6	8.5	
11:17 AM	15.7	1.0	2466.6	6.83	-5.2	5.5	
11:20 AM	15.9	0.8	2469.9	6.59	3.4	5.3	
11:23 AM	16.1	0.7	2464.8	6.69	7.8	5.2	
11:26 AM	16.3	0.7	2461.8	6.65	9.6	5.0	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	140.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-24**	Date:	**8/15/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	36.2
Initial Static Water Level (feet):	16.82
Initial Groundwater Elevation (ft-amsl):	690.45
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
9:20 AM	Purging start time.						
9:23 AM	15.9	2.0	1903.3	6.36	19.7	27.2	
9:26 AM	15.9	1.2	1920.9	6.34	0.1	25.0	
9:29 AM	16.0	0.9	1928.1	6.35	-8.8	21.5	
9:32 AM	15.9	0.8	1932.3	6.41	-13.8	22.4	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.4
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	116.67

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-28**	Date:	**8/16/2023**
Gradient: Down		Sampler:	Caleb Gomez

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	30.5
Initial Static Water Level (feet):	24.99
Initial Groundwater Elevation (ft-amsl):	640.16
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	Yes
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well was pumped dry while purging.

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-29**	Date:	**8/16/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	23.1
Initial Static Water Level (feet):	18.85
Initial Groundwater Elevation (ft-amsl):	685.93
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
4:58 PM	Purging start time.						
5:01 PM	18.1	5.2	1062.1	7.81	46.9	10.4	
5:04 PM	18.2	5.4	998.1	7.48	57.8	10.5	
5:07 PM	18.9	5.5	965.1	7.33	68.7	11.7	
5:10 PM	19.4	5.5	945.9	7.27	76.0	12.4	
5:13 PM	17.1	5.6	931.6	7.47	83.2	13.7	
5:16 PM	17.3	5.6	924.0	7.44	90.0	14.3	
5:19 PM	17.1	5.7	924.9	7.44	95.8	14.2	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	21:00
Average Purge Rate (mL/min):	85.71

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-32**	Date:	**8/15/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	37.3
Initial Static Water Level (feet):	30.00
Initial Groundwater Elevation (ft-amsl):	703.43
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
6:43 PM	Purging start time.						
6:46 PM	14.0	1.6	1291.3	6.96	19.1	6.5	
6:49 PM	14.2	0.9	1283.7	6.88	20.1	5.8	
6:52 PM	15.1	0.8	1275.6	6.80	20.3	6.2	
6:55 PM	13.9	0.7	1267.9	6.85	20.9	5.6	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	4.3
Was well pumped/bailed dry?	Yes
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	358.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well ran dry. Waited for recharge. Could not get accurate water level during and after purging as water was below pump during purging.

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-33**	Date:	**8/15/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	23.3
Initial Static Water Level (feet):	15.78
Initial Groundwater Elevation (ft-amsl):	719.24
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
5:46 PM	Purging start time.						
5:49 PM	14.3	1.7	1448.7	6.81	29.2	31.0	
5:52 PM	14.1	1.0	1430.4	6.74	25.7	17.1	
5:55 PM	14.0	0.7	1425.1	6.74	24.2	11.4	
5:58 PM	14.0	0.6	1420.9	6.70	23.0	8.6	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	183.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-39**	Date:	**8/17/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	118.2
Initial Static Water Level (feet):	41.44
Initial Groundwater Elevation (ft-amsl):	632.19
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
2:21 PM	Purging start time.						
2:24 PM	14.2	2.1	698.8	7.86	24.8	23.0	
2:27 PM	13.9	1.3	696.5	7.67	10.4	20.9	
2:30 PM	13.6	1.0	697.8	7.60	5.1	23.0	
2:33 PM	15.9	0.8	703.3	7.40	2.2	20.3	
2:36 PM	14.9	0.7	702.1	7.55	0.2	17.8	
2:39 PM	14.1	0.7	697.4	7.62	-0.4	15.7	
2:42 PM	14.8	0.6	693.2	7.58	-0.6	14.4	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	3.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	21:00
Average Purge Rate (mL/min):	152.38

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-40**	Date:	**8/18/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	93.3
Initial Static Water Level (feet):	63.68
Initial Groundwater Elevation (ft-amsl):	654.41
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
9:53 AM	Purging start time.						
9:56 AM	13.0	4.1	712.7	8.21	245.7	17.3	
9:59 AM	12.8	3.2	714.2	7.97	230.4	13.2	
10:02 AM	13.8	3.9	719.5	7.77	227.1	11.9	
10:05 AM	13.8	3.9	720.2	7.74	223.5	11.7	
10:08 AM	14.0	4.0	722.1	7.71	219.8	11.4	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	5.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	340.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-41**	Date:	**8/18/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	111.3
Initial Static Water Level (feet):	58.98
Initial Groundwater Elevation (ft-amsl):	659.29
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
10:57 AM	Purging start time.						
11:00 AM	15.7	2.2	827.0	8.16	30.5	49.4	
11:03 AM	13.5	1.3	814.1	8.00	18.4	60.5	
11:06 AM	12.8	1.0	810.4	7.95	18.7	36.8	
11:09 AM	13.6	0.8	806.7	7.79	23.2	18.6	
11:12 AM	13.7	0.7	811.5	7.71	26.2	15.0	
11:15 AM	13.3	0.7	810.1	7.76	28.5	12.7	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	6.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	21:00
Average Purge Rate (mL/min):	290.48

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-42**	Date:	**8/17/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	84.3
Initial Static Water Level (feet):	62.91
Initial Groundwater Elevation (ft-amsl):	673.43
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
4:40 PM	Purging start time.						
4:43 PM	13.4	5.3	752.2	8.51	276.2	24.6	
4:46 PM	15.1	4.7	751.2	7.89	267.0	26.9	
4:49 PM	15.5	4.6	762.2	7.68	257.4	33.2	
4:52 PM	15.7	4.5	757.0	7.65	248.4	40.0	
4:55 PM	15.6	4.4	762.1	7.62	239.2	38.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	3.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	213.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-43BG**	Date:	**8/18/2023**
Gradient: Up		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	116.2
Initial Static Water Level (feet):	73.45
Initial Groundwater Elevation (ft-amsl):	669.13
Equipment Used:	Non-Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
12:06 PM	Purging start time.						
12:09 PM	18.9	4.2	745.1	8.01	64.3	41.3	
12:12 PM	17.5	3.0	739.5	7.70	12.6	44.6	
12:15 PM	16.6	2.5	738.3	7.67	5.6	42.5	
12:18 PM	17.9	2.3	737.7	7.51	4.2	51.5	
12:21 PM	16.3	2.2	733.3	7.65	3.7	47.7	
12:24 PM	15.5	2.1	737.0	7.64	3.8	50.5	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	3.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	21:00
Average Purge Rate (mL/min):	142.86

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

FORM FOR GROUNDWATER SAMPLING

Project:	**Clinton County Area Sanitary Landfill-East, South MSWLF Unit**		
Monitoring Well/Piezometer ID:	**MW-90-18**	Date:	**8/17/2023**
Gradient: Down		Sampler:	Chad Dentlinger

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	NM
Initial Static Water Level (feet):	7.89
Initial Groundwater Elevation (ft-amsl):	648.27
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
1:44 PM	Purging start time.						
1:47 PM	15.3	2.3	904.3	8.16	76.1	13.6	
1:50 PM	15.5	1.5	906.5	7.64	39.0	13.3	
1:53 PM	15.8	1.3	910.2	7.45	28.9	12.4	
1:56 PM	15.9	1.1	909.5	7.39	24.3	11.6	
1:59 PM	15.5	1.0	907.7	7.40	21.6	11.3	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	3.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	220.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	

Appendix B-1
Laboratory Analytical Data Sheets

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Nathan Ohrt
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 5/2/2023 4:41:24 PM Revision 2

JOB DESCRIPTION

CCASW ES 1st 2023 Natural Attenuation

JOB NUMBER

310-252105-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Eurofins Cedar Falls

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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Authorization

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Revision 2

Authorized for release by
Meredith Liechti, Service Center Manager
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Job ID: 310-252105-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-252105-1

Comments
Revised Report. Orignal report omitted QC data for Nitrates.

Receipt
The sample was received on 3/24/2023 4:15 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.5º C.

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

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

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

Job ID: 310-252105-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-252105-2

REVISION

The report being provided is a revision of the original report sent on 4/25/2023. The report (revision 1) is being revised due to Evora name change to SCS Engineers.

Receipt
The sample was received on 3/24/2023 4:15 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

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

Sample Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-252105-1	MW-32	Ground Water	03/23/23 14:16	03/24/23 16:15

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Client Sample ID: MW-32

Lab Sample ID: 310-252105-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	41.4		1.00	0.400	mg/L	1		9056A	Total/NA
Iron	7.77		0.500	0.0930	mg/L	1		6010D	Total/NA
Manganese	2.05		0.0100	0.00320	mg/L	1		6010D	Total/NA
Total Organic Carbon - Duplicates	1.25		1.00	0.470	mg/L	1		SM 5310C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Client Sample ID: MW-32

Date Collected: 03/23/23 14:16
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252105-1

Matrix: Ground Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100	0.0420	mg/L			03/25/23 11:33	1
Sulfate	**41.4**		1.00	0.400	mg/L			03/25/23 11:33	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**7.77**		0.500	0.0930	mg/L		03/28/23 09:10	03/29/23 11:30	1
Manganese	**2.05**		0.0100	0.00320	mg/L		03/28/23 09:10	03/29/23 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates (SM 5310C)	**1.25**		1.00	0.470	mg/L			04/05/23 01:20	1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-382482/3
Matrix: Water
Analysis Batch: 382482

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100	0.0420	mg/L			03/25/23 11:04	1
Sulfate	<1.00		1.00	0.400	mg/L			03/25/23 11:04	1

Lab Sample ID: LCS 310-382482/4
Matrix: Water
Analysis Batch: 382482

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	2.00	2.046		mg/L		102	90 - 110
Sulfate	10.0	9.751		mg/L		98	90 - 110

Lab Sample ID: 310-252105-1 MS
Matrix: Ground Water
Analysis Batch: 382482

Client Sample ID: MW-32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	<0.100		1.00	1.311	F1	mg/L		131	80 - 120
Sulfate	41.4		5.00	46.96	4	mg/L		112	80 - 120

Lab Sample ID: 310-252105-1 MSD
Matrix: Ground Water
Analysis Batch: 382482

Client Sample ID: MW-32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	<0.100		1.00	1.133		mg/L		113	80 - 120	15	15
Sulfate	41.4		5.00	44.91	4	mg/L		71	80 - 120	4	15

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 310-382331/1-A
Matrix: Water
Analysis Batch: 382616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 382331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.500		0.500	0.0930	mg/L		03/28/23 09:10	03/29/23 10:42	1
Manganese	<0.0100		0.0100	0.00320	mg/L		03/28/23 09:10	03/29/23 10:42	1

Lab Sample ID: LCS 310-382331/2-A
Matrix: Water
Analysis Batch: 382616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 382331

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	2.00	2.030		mg/L		101	80 - 120
Manganese	1.00	1.019		mg/L		102	80 - 120

QC Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Method: SM 5310C - TOC

Lab Sample ID: MB 500-706083/4
Matrix: Water
Analysis Batch: 706083

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	<1.00		1.00	0.470	mg/L			04/04/23 19:19	1

Lab Sample ID: LCS 500-706083/5
Matrix: Water
Analysis Batch: 706083

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Duplicates	10.0	10.94		mg/L		109	86 - 116

Lab Sample ID: 310-252105-1 MS
Matrix: Ground Water
Analysis Batch: 706083

Client Sample ID: MW-32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Duplicates	1.25		10.0	11.76		mg/L		105	75 - 125

Lab Sample ID: 310-252105-1 MSD
Matrix: Ground Water
Analysis Batch: 706083

Client Sample ID: MW-32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	1.25		10.0	11.73		mg/L		105	75 - 125	0	20

QC Association Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

HPLC/IC

Analysis Batch: 382482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252105-1	MW-32	Total/NA	Ground Water	9056A	
MB 310-382482/3	Method Blank	Total/NA	Water	9056A	
LCS 310-382482/4	Lab Control Sample	Total/NA	Water	9056A	
310-252105-1 MS	MW-32	Total/NA	Ground Water	9056A	
310-252105-1 MSD	MW-32	Total/NA	Ground Water	9056A	

Metals

Prep Batch: 382331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252105-1	MW-32	Total/NA	Ground Water	3005A	
MB 310-382331/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-382331/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 382616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252105-1	MW-32	Total/NA	Ground Water	6010D	382331
MB 310-382331/1-A	Method Blank	Total/NA	Water	6010D	382331
LCS 310-382331/2-A	Lab Control Sample	Total/NA	Water	6010D	382331

General Chemistry

Analysis Batch: 706083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252105-1	MW-32	Total/NA	Ground Water	SM 5310C	
MB 500-706083/4	Method Blank	Total/NA	Water	SM 5310C	
LCS 500-706083/5	Lab Control Sample	Total/NA	Water	SM 5310C	
310-252105-1 MS	MW-32	Total/NA	Ground Water	SM 5310C	
310-252105-1 MSD	MW-32	Total/NA	Ground Water	SM 5310C	

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Client Sample ID: MW-32

Date Collected: 03/23/23 14:16
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252105-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	382482	QTZ5	EET CF	03/25/23 11:33
Total/NA	Prep	3005A			382331	DHM5	EET CF	03/28/23 09:10
Total/NA	Analysis	6010D		1	382616	ZRI4	EET CF	03/29/23 11:30
Total/NA	Analysis	SM 5310C		1	706083	BC	EET CHI	04/05/23 01:20

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	04-12-23

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	082	05-01-24

Method Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Natural Attenuation

Job ID: 310-252105-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
SM 5310C	TOC	SM	EET CHI
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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310-252105 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 3/24/23 TIME 1615 | Received By: AM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID: MV 3-25-23

Multiple Coolers? ☒ Yes ☒ No *If yes:* Cooler # 2 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet Ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: W | Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): | Corrected Temp (°C):

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	1L NT	
Uncorrected Temp (°C):	0.5	
Corrected Temp (°C):	0.5	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

MW32	MW43BG	no date on
MW90-11	MW39	labels or COC
MW28	MW06-7R	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive
Cedar Falls, Iowa 50613

319.277.2401 (phone)
515.792.7989 (fax)

SAMPLER:
SITE NAME: Clinton County Sanitary Landfill (East-South)
ADDRESS:
CITY/STATE/ZIP:
TELEPHONE NUMBER: Fax:
SAMPLED BY: (PRINT NAME)
SIGNATURE:

####

REPORT TO:
NAME: Nathan Ohrt (nohrt@scsengineers.com)
COMPANY NAME: SCS Engineers
PROJECT NAME: CCASW ES 1st 2023 Natural Attenuation
PROJECT NUMBER: 23001
ADDRESS: 1690 All State Court, Suite 100
CITY/STATE/ZIP: West Des Moines, IA 50265

								Preservative								Matrix						Analyze For:											
Sample ID	# of Containers Ordered	Date Sampled	Time Sampled	# of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass (Yellow & White Label)	None (Black & White Label)	Trip Blank	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Trip Blank	Total Organic Carbon	Nitrate	Total Iron	Total Manganese	Sulfate							Fax Results
MW-32								X								X						X	X	X	X	X							

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Shipped Via:			Comments:			Shipped Via:		
Received for lab by: ML	Date: 3-24-23	Time: 1615	Temperature Upon Receipt:					

Laboratory Comments: (1) For Appendix I and II analysis, report to the reporting limits, not the detection limits. Make sure that the reporting limits are below the EPA's MCLs.
(2) For analysis other than Appendix I and II, report to the detection limits. Please make sure that the detection limits are below the EPA's MCLs.
(3) In the "Result" column for all EDD files, when non-detect, please report "<" the reporting limits or the detection limits instead of indicating with "ND"

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone 319-277-2401 Fax 319-277-2425

Chain of Custody Record

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310-252105 COC

Client Information (Sub Contract Lab)	Sampler	Lab PM: Thompson Shirley J		COC No: 310-59641 1
Client Contact: Shipping/Receiving	Phone	E Mail: Shirley Thompson@et eurofinsus com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State Program - Iowa		Job #: 310-252105-1
Address: 2417 Bond Street	Due Date Requested: 4/6/2023			
City: University Park	TAT Requested (days):			
State Zip: IL 60484				
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #:			
Email	WO #:			
Project Name: CCASW ES 1st 2023 Natural Attenuation	Project #: 31002710			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5310C/ TOC	Total Number of containers	Special Instructions/Note
			Preservation Code:						
MW-32 (310-252105-1)	3/23/23	14 16 Central		Water			X	3	

Note. Since laboratory accreditations are subject to change Eurofins Environment Testing North Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing North Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing North Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	32723 1405		Stephanie Hernandez	3/20/23 1010	EEA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinqu shed by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		21+20

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-252105-1

Login Number: 252105
List Number: 1
Creator: Costello, Mackenzie K

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-252105-1

Login Number: 252105
List Number: 2
Creator: Hernandez, Stephanie

List Source: Eurofins Chicago
List Creation: 03/28/23 11:15 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Nathan Ohrt
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 5/3/2023 9:24:51 AM Revision 2

JOB DESCRIPTION

CCASW ES 1st 2023 HMSP

JOB NUMBER

310-252106-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Eurofins Cedar Falls

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization

Generated
5/3/2023 9:24:51 AM
Revision 2

Authorized for release by
Tayler Sanderson, Project Manager I
Tayler.Sanderson@et.eurofinsus.com
Designee for
Meredith Liechti, Service Center Manager
meredith.liechti@et.eurofinsus.com
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Job ID: 310-252106-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-252106-1

Comments
No additional comments.

Receipt
The samples were received on 3/24/2023 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.5º C, 0.6º C, 1.1º C and 1.1º C.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 310-382269 recovered outside of the control limits for Carbon disulfide (-22.1%D), Chlorobromomethane (-21.0%D), and 1,1-Dichloroethene (-20.1%D). The LCS associated with this CCV passed CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-382269/3).

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

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method 8151A: Surrogate recovery for the following sample was outside the upper control limit: MW-33 (310-252106-10). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

Metals
Method 3005A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: MW-24 (310-252106-8). The sample(s) was preserved to the appropriate pH in the laboratory.

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

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

Organic Prep
Methods 3510C, 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-382259.The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

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

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

Sample Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-252106-1	MW-06-7R	Ground Water	03/21/23 10:32	03/24/23 16:15
310-252106-2	MW-05-8R	Ground Water	03/21/23 16:33	03/24/23 16:15
310-252106-3	MW-19	Ground Water	03/22/23 11:02	03/24/23 16:15
310-252106-4	MW-28	Ground Water	03/21/23 12:02	03/24/23 16:15
310-252106-5	MW-29	Ground Water	03/22/23 12:53	03/24/23 16:15
310-252106-6	MW-90-11	Ground Water	03/21/23 12:37	03/24/23 16:15
310-252106-7	MW-20	Ground Water	03/22/23 11:24	03/24/23 16:15
310-252106-8	MW-24	Ground Water	03/22/23 12:04	03/24/23 16:15
310-252106-9	MW-32	Ground Water	03/23/23 14:16	03/24/23 16:15
310-252106-10	MW-33	Ground Water	03/22/23 16:08	03/24/23 16:15
310-252106-11	GU-1	Ground Water	03/23/23 09:41	03/24/23 16:15
310-252106-12	MW-39	Ground Water	03/21/23 11:21	03/24/23 16:15
310-252106-13	MW-40	Ground Water	03/21/23 16:21	03/24/23 16:15
310-252106-14	MW-41	Ground Water	03/21/23 14:51	03/24/23 16:15
310-252106-15	MW-42	Ground Water	03/23/23 15:33	03/24/23 16:15
310-252106-16	MW-43BG	Ground Water	03/21/23 09:38	03/24/23 16:15
310-252106-17	MW-DS2	Ground Water	03/21/23 16:21	03/24/23 16:15
310-252106-18	Trip Blank	Water	03/21/23 00:00	03/24/23 16:15

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-06-7R — Lab Sample ID: 310-252106-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00246		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.111		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cadmium	0.000137		0.000100	0.0000550	mg/L	1		6020B	Total/NA
Lead	0.000307	J	0.000500	0.000240	mg/L	1		6020B	Total/NA
Selenium	0.00161	J	0.00500	0.000960	mg/L	1		6020B	Total/NA
Silver	0.00138		0.00100	0.000490	mg/L	1		6020B	Total/NA
Thallium	0.000895	J	0.00100	0.000260	mg/L	1		6020B	Total/NA
Total Suspended Solids	9.87		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-05-8R — Lab Sample ID: 310-252106-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.00122	J	0.00200	0.000690	mg/L	1		6020B	Total/NA
Arsenic	0.00105	J	0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.283		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cadmium	0.000194		0.000100	0.0000550	mg/L	1		6020B	Total/NA
Chromium	0.00254	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Cobalt	0.000456	J	0.000500	0.000190	mg/L	1		6020B	Total/NA
Lead	0.000618		0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00508		0.00500	0.00190	mg/L	1		6020B	Total/NA
Selenium	0.00225	J	0.00500	0.000960	mg/L	1		6020B	Total/NA
Silver	0.00139		0.00100	0.000490	mg/L	1		6020B	Total/NA
Thallium	0.00120		0.00100	0.000260	mg/L	1		6020B	Total/NA
Vanadium	0.00304	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Total Suspended Solids	29.4		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-252106-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.176		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cadmium	0.0000910	J	0.000100	0.0000550	mg/L	1		6020B	Total/NA
Cobalt	0.000451	J	0.000500	0.000190	mg/L	1		6020B	Total/NA
Copper	0.00203	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.000714		0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00360	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Vanadium	0.00153	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Total Suspended Solids	33.3		3.75	1.28	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-28 — Lab Sample ID: 310-252106-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.35		1.00	0.220	ug/L	1		8260D	Total/NA
Barium	0.106		0.00200	0.000880	mg/L	1		6020B	Total/NA
Total Suspended Solids	4.25		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-29 — Lab Sample ID: 310-252106-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.130		0.00200	0.000880	mg/L	1		6020B	Total/NA
Chromium	0.00571		0.00500	0.00110	mg/L	1		6020B	Total/NA
Cobalt	0.000191	J	0.000500	0.000190	mg/L	1		6020B	Total/NA
Vanadium	0.00445	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Total Suspended Solids	5.12		1.88	0.638	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-90-11 — Lab Sample ID: 310-252106-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	1.25		1.00	0.400	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.303	J	1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.776	J	1.00	0.220	ug/L	1		8260D	Total/NA
Arsenic	0.0124		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.359		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cadmium	0.0000680	J	0.000100	0.0000550	mg/L	1		6020B	Total/NA
Cobalt	0.00135		0.000500	0.000190	mg/L	1		6020B	Total/NA
Nickel	0.00624		0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	32.3		5.00	1.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 310-252106-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.943		0.500	0.220	ug/L	1		8260D	Total/NA
Chloroethane	4.97		4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.59		1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	9.62		1.00	0.220	ug/L	1		8260D	Total/NA
Vinyl chloride	0.774	J	1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.0316		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	2.36		0.00800	0.00352	mg/L	4		6020B	Total/NA
Cadmium	0.000108		0.000100	0.0000550	mg/L	1		6020B	Total/NA
Cobalt	0.0253		0.000500	0.000190	mg/L	1		6020B	Total/NA
Nickel	0.0315		0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	49.5		7.50	2.55	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-24 — Lab Sample ID: 310-252106-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.66		0.500	0.220	ug/L	1		8260D	Total/NA
Chloroethane	3.58	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.87		1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	2.48		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.754	J	1.00	0.270	ug/L	1		8260D	Total/NA
Vinyl chloride	1.78		1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.00700		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.527		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cobalt	0.00139		0.000500	0.000190	mg/L	1		6020B	Total/NA
Lead	0.000343	J	0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00218	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	121		15.0	5.10	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-32 — Lab Sample ID: 310-252106-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.798		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	1.01		1.00	0.400	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.352	J	1.00	0.210	ug/L	1		8260D	Total/NA
1,4-Dichlorobenzene	0.417	J	1.00	0.230	ug/L	1		8260D	Total/NA
Xylenes, Total	0.420	J	3.00	0.400	ug/L	1		8260D	Total/NA
Arsenic	0.0177		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.130		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cobalt	0.0115		0.000500	0.000190	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-32 (Continued) — Lab Sample ID: 310-252106-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.00476	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	8.00		5.00	1.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-33 — Lab Sample ID: 310-252106-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	23.5		10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	0.821		0.500	0.220	ug/L	1		8260D	Total/NA
3,4-Methylphenol	5.54	J	10.0	0.700	ug/L	1		8270E	Total/NA
Arsenic	0.00619		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.145		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cobalt	0.0168		0.000500	0.000190	mg/L	1		6020B	Total/NA
Lead	0.000541		0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.0135		0.00500	0.00190	mg/L	1		6020B	Total/NA
Vanadium	0.00135	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Total Suspended Solids	32.0		5.00	1.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: GU-1 — Lab Sample ID: 310-252106-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.82		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	0.956	J	1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	1.98	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.86		1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.976	J	1.00	0.220	ug/L	1		8260D	Total/NA
Vinyl chloride	1.79		1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.0200		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.455		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cobalt	0.000518		0.000500	0.000190	mg/L	1		6020B	Total/NA
Nickel	0.00478	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	35.0		15.0	5.10	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-39 — Lab Sample ID: 310-252106-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.354		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cobalt	0.00364		0.000500	0.000190	mg/L	1		6020B	Total/NA
Lead	0.000338	J	0.000500	0.000240	mg/L	1		6020B	Total/NA
Total Suspended Solids	23.5		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-40 — Lab Sample ID: 310-252106-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0166		0.00200	0.000880	mg/L	1		6020B	Total/NA
Total Suspended Solids	6.63		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-41 — Lab Sample ID: 310-252106-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00272		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.167		0.00200	0.000880	mg/L	1		6020B	Total/NA
Cobalt	0.000410	J	0.000500	0.000190	mg/L	1		6020B	Total/NA
Total Suspended Solids	12.8		1.88	0.638	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-42 — Lab Sample ID: 310-252106-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.123		0.00200	0.000880	mg/L	1		6020B	Total/NA
Selenium	0.00139	J	0.00500	0.000960	mg/L	1		6020B	Total/NA
Total Suspended Solids	55.1		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-43BG — Lab Sample ID: 310-252106-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00669		0.00200	0.000750	mg/L	1		6020B	Total/NA
Barium	0.350		0.00200	0.000880	mg/L	1		6020B	Total/NA
Chromium	0.00218	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Cobalt	0.000629		0.000500	0.000190	mg/L	1		6020B	Total/NA
Lead	0.000719		0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00269	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Vanadium	0.00118	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Total Suspended Solids	124		5.00	1.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-DS2 — Lab Sample ID: 310-252106-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0169		0.00200	0.000880	mg/L	1		6020B	Total/NA
Total Suspended Solids	6.25		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-252106-18

No Detections.

This Detection Summary does not include radiochemical test results.

Quantitation Limit Exceptions Summary

Client: SCS Engineers
Job ID: 310-252106-1
Project/Site: CCASW ES 1st 2023 HMSP

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
8260D	1,2-Dibromo-3-Chloropropane	Ground Water	Total/NA	ug/L	1.20	5
8260D	1,2-Dibromo-3-Chloropropane	Water	Total/NA	ug/L	1.20	5
8260D	1,2-Dibromoethane (EDB)	Ground Water	Total/NA	ug/L	0.340	1
8260D	1,2-Dibromoethane (EDB)	Water	Total/NA	ug/L	0.340	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-06-7R

Date Collected: 03/21/23 10:32
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-1

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/27/23 22:59	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/27/23 22:59	1
Benzene	<0.500		0.500	0.220	ug/L			03/27/23 22:59	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/27/23 22:59	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/27/23 22:59	1
Bromoform	<5.00		5.00	0.780	ug/L			03/27/23 22:59	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/27/23 22:59	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/27/23 22:59	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/27/23 22:59	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/27/23 22:59	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/27/23 22:59	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/27/23 22:59	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/27/23 22:59	1
Chloroform	<3.00		3.00	1.30	ug/L			03/27/23 22:59	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/27/23 22:59	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/27/23 22:59	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/27/23 22:59	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/27/23 22:59	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/27/23 22:59	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/27/23 22:59	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/27/23 22:59	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/27/23 22:59	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/27/23 22:59	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/27/23 22:59	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/27/23 22:59	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/27/23 22:59	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/27/23 22:59	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/27/23 22:59	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/27/23 22:59	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/27/23 22:59	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/27/23 22:59	1
Styrene	<1.00		1.00	0.370	ug/L			03/27/23 22:59	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/27/23 22:59	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/27/23 22:59	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/27/23 22:59	1
Toluene	<1.00		1.00	0.430	ug/L			03/27/23 22:59	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/27/23 22:59	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/27/23 22:59	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/27/23 22:59	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/27/23 22:59	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/27/23 22:59	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/27/23 22:59	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/27/23 22:59	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/27/23 22:59	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/27/23 22:59	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/27/23 22:59	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/27/23 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*03/27/23 22:59*	*1*

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-06-7R

Date Collected: 03/21/23 10:32
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-1

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*80 - 128*		*03/27/23 22:59*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/27/23 22:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 12:28	1
Arsenic	**0.00246**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 12:28	1
Barium	**0.111**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 12:28	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 12:28	1
Cadmium	**0.000137**		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 12:28	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:28	1
Cobalt	<0.000500		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 12:28	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 12:28	1
Lead	**0.000307**	**J**	0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 12:28	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 12:28	1
Selenium	**0.00161**	**J**	0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 12:28	1
Silver	**0.00138**		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 12:28	1
Thallium	**0.000895**	**J**	0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 12:28	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:28	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 12:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**9.87**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-05-8R

Date Collected: 03/21/23 16:33
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-2

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/27/23 23:20	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/27/23 23:20	1
Benzene	<0.500		0.500	0.220	ug/L			03/27/23 23:20	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/27/23 23:20	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/27/23 23:20	1
Bromoform	<5.00		5.00	0.780	ug/L			03/27/23 23:20	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/27/23 23:20	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/27/23 23:20	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/27/23 23:20	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/27/23 23:20	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/27/23 23:20	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/27/23 23:20	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/27/23 23:20	1
Chloroform	<3.00		3.00	1.30	ug/L			03/27/23 23:20	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/27/23 23:20	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/27/23 23:20	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/27/23 23:20	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/27/23 23:20	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/27/23 23:20	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/27/23 23:20	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/27/23 23:20	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/27/23 23:20	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/27/23 23:20	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/27/23 23:20	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/27/23 23:20	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/27/23 23:20	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/27/23 23:20	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/27/23 23:20	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/27/23 23:20	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/27/23 23:20	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/27/23 23:20	1
Styrene	<1.00		1.00	0.370	ug/L			03/27/23 23:20	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/27/23 23:20	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/27/23 23:20	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/27/23 23:20	1
Toluene	<1.00		1.00	0.430	ug/L			03/27/23 23:20	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/27/23 23:20	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/27/23 23:20	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/27/23 23:20	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/27/23 23:20	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/27/23 23:20	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/27/23 23:20	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/27/23 23:20	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/27/23 23:20	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/27/23 23:20	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/27/23 23:20	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/27/23 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*03/27/23 23:20*	*1*

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-05-8R

Date Collected: 03/21/23 16:33
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-2

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*80 - 128*		*03/27/23 23:20*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/27/23 23:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00122**	**J**	0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 12:44	1
Arsenic	**0.00105**	**J**	0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 12:44	1
Barium	**0.283**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 12:44	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 12:44	1
Cadmium	**0.000194**		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 12:44	1
Chromium	**0.00254**	**J**	0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:44	1
Cobalt	**0.000456**	**J**	0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 12:44	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 12:44	1
Lead	**0.000618**		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 12:44	1
Nickel	**0.00508**		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 12:44	1
Selenium	**0.00225**	**J**	0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 12:44	1
Silver	**0.00139**		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 12:44	1
Thallium	**0.00120**		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 12:44	1
Vanadium	**0.00304**	**J**	0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:44	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**29.4**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-19

Date Collected: 03/22/23 11:02
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-3

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/27/23 23:41	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/27/23 23:41	1
Benzene	<0.500		0.500	0.220	ug/L			03/27/23 23:41	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/27/23 23:41	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/27/23 23:41	1
Bromoform	<5.00		5.00	0.780	ug/L			03/27/23 23:41	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/27/23 23:41	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/27/23 23:41	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/27/23 23:41	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/27/23 23:41	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/27/23 23:41	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/27/23 23:41	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/27/23 23:41	1
Chloroform	<3.00		3.00	1.30	ug/L			03/27/23 23:41	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/27/23 23:41	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/27/23 23:41	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/27/23 23:41	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/27/23 23:41	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/27/23 23:41	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/27/23 23:41	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/27/23 23:41	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/27/23 23:41	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/27/23 23:41	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/27/23 23:41	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/27/23 23:41	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/27/23 23:41	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/27/23 23:41	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/27/23 23:41	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/27/23 23:41	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/27/23 23:41	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/27/23 23:41	1
Styrene	<1.00		1.00	0.370	ug/L			03/27/23 23:41	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/27/23 23:41	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/27/23 23:41	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/27/23 23:41	1
Toluene	<1.00		1.00	0.430	ug/L			03/27/23 23:41	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/27/23 23:41	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/27/23 23:41	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/27/23 23:41	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/27/23 23:41	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/27/23 23:41	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/27/23 23:41	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/27/23 23:41	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/27/23 23:41	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/27/23 23:41	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/27/23 23:41	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/27/23 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*03/27/23 23:41*	*1*

Client Sample ID: MW-19

Date Collected: 03/22/23 11:02
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-3

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*80 - 128*		*03/27/23 23:41*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/27/23 23:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 12:48	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 12:48	1
Barium	**0.176**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 12:48	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 12:48	1
Cadmium	**0.0000910**	**J**	0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 12:48	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:48	1
Cobalt	**0.000451**	**J**	0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 12:48	1
Copper	**0.00203**	**J**	0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 12:48	1
Lead	**0.000714**		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 12:48	1
Nickel	**0.00360**	**J**	0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 12:48	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 12:48	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 12:48	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 12:48	1
Vanadium	**0.00153**	**J**	0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:48	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 12:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**33.3**		3.75	1.28	mg/L			03/28/23 07:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-28

Date Collected: 03/21/23 12:02
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-4

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 00:03	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 00:03	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 00:03	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 00:03	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 00:03	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 00:03	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 00:03	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 00:03	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 00:03	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 00:03	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 00:03	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 00:03	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 00:03	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 00:03	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 00:03	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 00:03	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 00:03	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 00:03	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 00:03	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 00:03	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 00:03	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 00:03	1
1,1-Dichloroethane	**1.35**		1.00	0.220	ug/L			03/28/23 00:03	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 00:03	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 00:03	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 00:03	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 00:03	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 00:03	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 00:03	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 00:03	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 00:03	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 00:03	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 00:03	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 00:03	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 00:03	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 00:03	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 00:03	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 00:03	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 00:03	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 00:03	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 00:03	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 00:03	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 00:03	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 00:03	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 00:03	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 00:03	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*03/28/23 00:03*	*1*

Client Sample ID: MW-28

Date Collected: 03/21/23 12:02
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-4

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*80 - 128*		*03/28/23 00:03*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/28/23 00:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:15	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:15	1
Barium	**0.106**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 13:15	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:15	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:15	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:15	1
Cobalt	<0.000500		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:15	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:15	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:15	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:15	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:15	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:15	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:15	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:15	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**4.25**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-29

Date Collected: 03/22/23 12:53
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-5

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 00:24	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 00:24	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 00:24	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 00:24	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 00:24	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 00:24	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 00:24	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 00:24	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 00:24	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 00:24	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 00:24	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 00:24	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 00:24	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 00:24	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 00:24	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 00:24	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 00:24	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 00:24	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 00:24	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 00:24	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 00:24	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 00:24	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 00:24	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 00:24	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 00:24	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 00:24	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 00:24	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 00:24	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 00:24	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 00:24	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 00:24	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 00:24	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 00:24	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 00:24	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 00:24	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 00:24	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 00:24	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 00:24	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 00:24	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 00:24	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 00:24	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 00:24	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 00:24	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 00:24	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 00:24	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 00:24	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 00:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/28/23 00:24*	*1*

Client Sample ID: MW-29

Date Collected: 03/22/23 12:53
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-5

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*80 - 128*		*03/28/23 00:24*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/28/23 00:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:19	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:19	1
Barium	**0.130**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 13:19	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:19	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:19	1
Chromium	**0.00571**		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:19	1
Cobalt	**0.000191**	**J**	0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:19	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:19	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:19	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:19	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:19	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:19	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:19	1
Vanadium	**0.00445**	**J**	0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:19	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**5.12**		1.88	0.638	mg/L			03/28/23 07:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-90-11

Date Collected: 03/21/23 12:37
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-6

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 00:45	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 00:45	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 00:45	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 00:45	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 00:45	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 00:45	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 00:45	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 00:45	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 00:45	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 00:45	1
Chlorobenzene	**1.25**		1.00	0.400	ug/L			03/28/23 00:45	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 00:45	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 00:45	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 00:45	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 00:45	1
cis-1,2-Dichloroethene	**0.303**	**J**	1.00	0.210	ug/L			03/28/23 00:45	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 00:45	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 00:45	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 00:45	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 00:45	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 00:45	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 00:45	1
1,1-Dichloroethane	**0.776**	**J**	1.00	0.220	ug/L			03/28/23 00:45	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 00:45	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 00:45	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 00:45	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 00:45	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 00:45	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 00:45	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 00:45	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 00:45	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 00:45	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 00:45	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 00:45	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 00:45	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 00:45	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 00:45	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 00:45	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 00:45	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 00:45	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 00:45	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 00:45	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 00:45	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 00:45	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 00:45	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 00:45	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*03/28/23 00:45*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-90-11

Date Collected: 03/21/23 12:37
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-6

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*80 - 128*		*03/28/23 00:45*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/28/23 00:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:22	1
Arsenic	**0.0124**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:22	1
Barium	**0.359**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 13:22	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:22	1
Cadmium	**0.0000680**	**J**	0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:22	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:22	1
Cobalt	**0.00135**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:22	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:22	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:22	1
Nickel	**0.00624**		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:22	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:22	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:22	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:22	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:22	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**32.3**		5.00	1.70	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-20

Date Collected: 03/22/23 11:24
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-7

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 01:07	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 01:07	1
Benzene	**0.943**		0.500	0.220	ug/L			03/28/23 01:07	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 01:07	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 01:07	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 01:07	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 01:07	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 01:07	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 01:07	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 01:07	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 01:07	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 01:07	1
Chloroethane	**4.97**		4.00	0.790	ug/L			03/28/23 01:07	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 01:07	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 01:07	1
cis-1,2-Dichloroethene	**3.59**		1.00	0.210	ug/L			03/28/23 01:07	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 01:07	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 01:07	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 01:07	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 01:07	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 01:07	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 01:07	1
1,1-Dichloroethane	**9.62**		1.00	0.220	ug/L			03/28/23 01:07	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 01:07	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 01:07	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 01:07	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 01:07	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 01:07	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 01:07	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 01:07	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 01:07	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 01:07	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 01:07	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 01:07	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 01:07	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 01:07	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 01:07	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 01:07	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 01:07	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 01:07	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 01:07	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 01:07	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 01:07	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 01:07	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 01:07	1
Vinyl chloride	**0.774**	**J**	1.00	0.180	ug/L			03/28/23 01:07	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*03/28/23 01:07*	*1*

Client Sample ID: MW-20

Date Collected: 03/22/23 11:24
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-7

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*80 - 128*		*03/28/23 01:07*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/28/23 01:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:26	1
Arsenic	**0.0316**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:26	1
Barium	**2.36**		0.00800	0.00352	mg/L		03/29/23 10:20	03/30/23 14:00	4
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:26	1
Cadmium	**0.000108**		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:26	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:26	1
Cobalt	**0.0253**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:26	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:26	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:26	1
Nickel	**0.0315**		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:26	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:26	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:26	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:26	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:26	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**49.5**		7.50	2.55	mg/L			03/28/23 07:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-24

Date Collected: 03/22/23 12:04
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-8

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 01:28	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 01:28	1
Benzene	**1.66**		0.500	0.220	ug/L			03/28/23 01:28	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 01:28	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 01:28	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 01:28	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 01:28	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 01:28	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 01:28	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 01:28	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 01:28	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 01:28	1
Chloroethane	**3.58**	**J**	4.00	0.790	ug/L			03/28/23 01:28	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 01:28	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 01:28	1
cis-1,2-Dichloroethene	**1.87**		1.00	0.210	ug/L			03/28/23 01:28	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 01:28	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 01:28	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 01:28	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 01:28	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 01:28	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 01:28	1
1,1-Dichloroethane	**2.48**		1.00	0.220	ug/L			03/28/23 01:28	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 01:28	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 01:28	1
1,2-Dichloropropane	**0.754**	**J**	1.00	0.270	ug/L			03/28/23 01:28	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 01:28	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 01:28	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 01:28	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 01:28	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 01:28	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 01:28	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 01:28	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 01:28	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 01:28	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 01:28	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 01:28	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 01:28	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 01:28	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 01:28	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 01:28	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 01:28	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 01:28	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 01:28	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 01:28	1
Vinyl chloride	**1.78**		1.00	0.180	ug/L			03/28/23 01:28	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/28/23 01:28*	*1*

Client Sample ID: MW-24

Date Collected: 03/22/23 12:04
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-8

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*80 - 128*		*03/28/23 01:28*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/28/23 01:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:29	1
Arsenic	**0.00700**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:29	1
Barium	**0.527**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 13:29	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:29	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:29	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:29	1
Cobalt	**0.00139**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:29	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:29	1
Lead	**0.000343**	**J**	0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:29	1
Nickel	**0.00218**	**J**	0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:29	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:29	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:29	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:29	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:29	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**121**		15.0	5.10	mg/L			03/28/23 07:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-32

Date Collected: 03/23/23 14:16
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-9

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 01:49	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 01:49	1
Benzene	**0.798**		0.500	0.220	ug/L			03/28/23 01:49	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 01:49	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 01:49	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 01:49	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 01:49	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 01:49	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 01:49	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 01:49	1
Chlorobenzene	**1.01**		1.00	0.400	ug/L			03/28/23 01:49	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 01:49	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 01:49	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 01:49	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 01:49	1
cis-1,2-Dichloroethene	**0.352**	**J**	1.00	0.210	ug/L			03/28/23 01:49	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 01:49	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 01:49	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 01:49	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 01:49	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 01:49	1
1,4-Dichlorobenzene	**0.417**	**J**	1.00	0.230	ug/L			03/28/23 01:49	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 01:49	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 01:49	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 01:49	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 01:49	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 01:49	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 01:49	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 01:49	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 01:49	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 01:49	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 01:49	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 01:49	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 01:49	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 01:49	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 01:49	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 01:49	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 01:49	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 01:49	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 01:49	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 01:49	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 01:49	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 01:49	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 01:49	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 01:49	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 01:49	1
Xylenes, Total	**0.420**	**J**	3.00	0.400	ug/L			03/28/23 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/28/23 01:49*	*1*

Client Sample ID: MW-32

Date Collected: 03/23/23 14:16
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-9

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*80 - 128*		*03/28/23 01:49*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/28/23 01:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:32	1
Arsenic	**0.0177**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:32	1
Barium	**0.130**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 13:32	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:32	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:32	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:32	1
Cobalt	**0.0115**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:32	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:32	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:32	1
Nickel	**0.00476**	**J**	0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:32	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:32	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:32	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:32	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:32	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**8.00**		5.00	1.70	mg/L			03/28/23 07:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-33

Date Collected: 03/22/23 16:08
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-10

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**23.5**		10.0	3.10	ug/L			03/28/23 02:11	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 02:11	1
Benzene	**0.821**		0.500	0.220	ug/L			03/28/23 02:11	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 02:11	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 02:11	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 02:11	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 02:11	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 02:11	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 02:11	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 02:11	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 02:11	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 02:11	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 02:11	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 02:11	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 02:11	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 02:11	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 02:11	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 02:11	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 02:11	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 02:11	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 02:11	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 02:11	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 02:11	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 02:11	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 02:11	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 02:11	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 02:11	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 02:11	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 02:11	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 02:11	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 02:11	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 02:11	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 02:11	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 02:11	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 02:11	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 02:11	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 02:11	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 02:11	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 02:11	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 02:11	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 02:11	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 02:11	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 02:11	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 02:11	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 02:11	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 02:11	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/28/23 02:11*	*1*

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-33

Date Collected: 03/22/23 16:08
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-10

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*80 - 128*		*03/28/23 02:11*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/28/23 02:11*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,4-Methylphenol	**5.54**	**J**	10.0	0.700	ug/L		03/27/23 09:25	03/28/23 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*68*		*13 - 110*	*03/27/23 09:25*	*03/28/23 21:47*	*1*
Phenol-d5 (Surr)	*53*		*12 - 110*	*03/27/23 09:25*	*03/28/23 21:47*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*15 - 121*	*03/27/23 09:25*	*03/28/23 21:47*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<1.02		1.02	0.553	ug/L		03/29/23 08:26	03/31/23 15:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:36	1
Arsenic	**0.00619**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:36	1
Barium	**0.145**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 13:36	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:36	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:36	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:36	1
Cobalt	**0.0168**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:36	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:36	1
Lead	**0.000541**		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:36	1
Nickel	**0.0135**		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:36	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:36	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:36	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:36	1
Vanadium	**0.00135**	**J**	0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:36	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**32.0**		5.00	1.70	mg/L			03/28/23 07:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: GU-1

Date Collected: 03/23/23 09:41
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-11

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 02:32	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 02:32	1
Benzene	**1.82**		0.500	0.220	ug/L			03/28/23 02:32	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 02:32	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 02:32	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 02:32	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 02:32	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 02:32	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 02:32	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 02:32	1
Chlorobenzene	**0.956**	**J**	1.00	0.400	ug/L			03/28/23 02:32	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 02:32	1
Chloroethane	**1.98**	**J**	4.00	0.790	ug/L			03/28/23 02:32	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 02:32	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 02:32	1
cis-1,2-Dichloroethene	**1.86**		1.00	0.210	ug/L			03/28/23 02:32	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 02:32	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 02:32	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 02:32	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 02:32	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 02:32	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 02:32	1
1,1-Dichloroethane	**0.976**	**J**	1.00	0.220	ug/L			03/28/23 02:32	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 02:32	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 02:32	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 02:32	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 02:32	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 02:32	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 02:32	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 02:32	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 02:32	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 02:32	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 02:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 02:32	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 02:32	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 02:32	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 02:32	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 02:32	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 02:32	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 02:32	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 02:32	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 02:32	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 02:32	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 02:32	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 02:32	1
Vinyl chloride	**1.79**		1.00	0.180	ug/L			03/28/23 02:32	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*03/28/23 02:32*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: GU-1

Date Collected: 03/23/23 09:41
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-11

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*80 - 128*		*03/28/23 02:32*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/28/23 02:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 13:39	1
Arsenic	**0.0200**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 13:39	1
Barium	**0.455**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 13:39	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 13:39	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 13:39	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:39	1
Cobalt	**0.000518**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 13:39	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 13:39	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 13:39	1
Nickel	**0.00478**	**J**	0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 13:39	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 13:39	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 13:39	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 13:39	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 13:39	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 13:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**35.0**		15.0	5.10	mg/L			03/28/23 07:19	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-39

Date Collected: 03/21/23 11:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-12

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 02:53	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 02:53	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 02:53	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 02:53	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 02:53	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 02:53	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 02:53	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 02:53	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 02:53	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 02:53	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 02:53	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 02:53	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 02:53	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 02:53	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 02:53	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 02:53	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 02:53	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 02:53	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 02:53	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 02:53	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 02:53	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 02:53	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 02:53	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 02:53	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 02:53	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 02:53	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 02:53	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 02:53	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 02:53	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 02:53	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 02:53	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 02:53	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 02:53	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 02:53	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 02:53	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 02:53	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 02:53	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 02:53	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 02:53	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 02:53	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 02:53	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 02:53	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 02:53	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 02:53	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 02:53	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 02:53	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/28/23 02:53*	*1*

Client Sample ID: MW-39

Date Collected: 03/21/23 11:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-12

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*80 - 128*		*03/28/23 02:53*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/28/23 02:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 14:13	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 14:13	1
Barium	**0.354**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 14:13	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 14:13	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 14:13	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:13	1
Cobalt	**0.00364**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 14:13	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 14:13	1
Lead	**0.000338**	**J**	0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 14:13	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 14:13	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 14:13	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 14:13	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 14:13	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:13	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**23.5**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-40

Date Collected: 03/21/23 16:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-13

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 03:15	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 03:15	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 03:15	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 03:15	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 03:15	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 03:15	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 03:15	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 03:15	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 03:15	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 03:15	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 03:15	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 03:15	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 03:15	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 03:15	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 03:15	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 03:15	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 03:15	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 03:15	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 03:15	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 03:15	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 03:15	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 03:15	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 03:15	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 03:15	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 03:15	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 03:15	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 03:15	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 03:15	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 03:15	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 03:15	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 03:15	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 03:15	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 03:15	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 03:15	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 03:15	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 03:15	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 03:15	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 03:15	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 03:15	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 03:15	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 03:15	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 03:15	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 03:15	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 03:15	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 03:15	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 03:15	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 03:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*03/28/23 03:15*	*1*

Client Sample ID: MW-40

Date Collected: 03/21/23 16:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-13

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*80 - 128*		*03/28/23 03:15*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/28/23 03:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 14:17	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 14:17	1
Barium	**0.0166**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 14:17	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 14:17	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 14:17	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:17	1
Cobalt	<0.000500		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 14:17	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 14:17	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 14:17	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 14:17	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 14:17	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 14:17	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 14:17	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:17	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**6.63**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-41

Date Collected: 03/21/23 14:51
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-14

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 03:36	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 03:36	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 03:36	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 03:36	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 03:36	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 03:36	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 03:36	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 03:36	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 03:36	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 03:36	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 03:36	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 03:36	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 03:36	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 03:36	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 03:36	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 03:36	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 03:36	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 03:36	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 03:36	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 03:36	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 03:36	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 03:36	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 03:36	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 03:36	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 03:36	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 03:36	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 03:36	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 03:36	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 03:36	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 03:36	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 03:36	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 03:36	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 03:36	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 03:36	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 03:36	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 03:36	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 03:36	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 03:36	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 03:36	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 03:36	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 03:36	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 03:36	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 03:36	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 03:36	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 03:36	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 03:36	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 03:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/28/23 03:36*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-41

Date Collected: 03/21/23 14:51
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-14

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*80 - 128*		*03/28/23 03:36*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/28/23 03:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 14:20	1
Arsenic	**0.00272**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 14:20	1
Barium	**0.167**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 14:20	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 14:20	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 14:20	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:20	1
Cobalt	**0.000410**	**J**	0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 14:20	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 14:20	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 14:20	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 14:20	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 14:20	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 14:20	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 14:20	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:20	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**12.8**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-42

Date Collected: 03/23/23 15:33
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-15

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 03:57	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 03:57	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 03:57	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 03:57	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 03:57	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 03:57	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 03:57	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 03:57	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 03:57	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 03:57	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 03:57	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 03:57	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 03:57	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 03:57	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 03:57	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 03:57	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 03:57	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 03:57	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 03:57	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 03:57	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 03:57	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 03:57	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 03:57	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 03:57	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 03:57	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 03:57	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 03:57	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 03:57	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 03:57	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 03:57	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 03:57	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 03:57	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 03:57	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 03:57	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 03:57	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 03:57	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 03:57	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 03:57	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 03:57	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 03:57	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 03:57	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 03:57	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 03:57	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 03:57	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 03:57	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 03:57	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/28/23 03:57*	*1*

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-42

Date Collected: 03/23/23 15:33
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-15

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*80 - 128*		*03/28/23 03:57*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/28/23 03:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 14:24	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 14:24	1
Barium	**0.123**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 14:24	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 14:24	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 14:24	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:24	1
Cobalt	<0.000500		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 14:24	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 14:24	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 14:24	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 14:24	1
Selenium	**0.00139**	**J**	0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 14:24	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 14:24	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 14:24	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:24	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**55.1**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-43BG

Date Collected: 03/21/23 09:38
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-16

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 04:19	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 04:19	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 04:19	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 04:19	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 04:19	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 04:19	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 04:19	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 04:19	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 04:19	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 04:19	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 04:19	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 04:19	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 04:19	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 04:19	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 04:19	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 04:19	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 04:19	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 04:19	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 04:19	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 04:19	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 04:19	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 04:19	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 04:19	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 04:19	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 04:19	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 04:19	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 04:19	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 04:19	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 04:19	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 04:19	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 04:19	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 04:19	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 04:19	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 04:19	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 04:19	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 04:19	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 04:19	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 04:19	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 04:19	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 04:19	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 04:19	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 04:19	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 04:19	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 04:19	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 04:19	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 04:19	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 04:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*03/28/23 04:19*	*1*

Client Sample ID: MW-43BG

Lab Sample ID: 310-252106-16

Date Collected: 03/21/23 09:38

Matrix: Ground Water

Date Received: 03/24/23 16:15

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*80 - 128*		*03/28/23 04:19*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/28/23 04:19*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 14:27	1
Arsenic	**0.00669**		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 14:27	1
Barium	**0.350**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 14:27	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 14:27	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 14:27	1
Chromium	**0.00218**	**J**	0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:27	1
Cobalt	**0.000629**		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 14:27	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 14:27	1
Lead	**0.000719**		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 14:27	1
Nickel	**0.00269**	**J**	0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 14:27	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 14:27	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 14:27	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 14:27	1
Vanadium	**0.00118**	**J**	0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:27	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**124**		5.00	1.70	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-DS2

Date Collected: 03/21/23 16:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-17

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/28/23 04:40	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/28/23 04:40	1
Benzene	<0.500		0.500	0.220	ug/L			03/28/23 04:40	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/28/23 04:40	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/28/23 04:40	1
Bromoform	<5.00		5.00	0.780	ug/L			03/28/23 04:40	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/28/23 04:40	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/28/23 04:40	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/28/23 04:40	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/28/23 04:40	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/28/23 04:40	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/28/23 04:40	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/28/23 04:40	1
Chloroform	<3.00		3.00	1.30	ug/L			03/28/23 04:40	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/28/23 04:40	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/28/23 04:40	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/28/23 04:40	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/28/23 04:40	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/28/23 04:40	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/28/23 04:40	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/28/23 04:40	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/28/23 04:40	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/28/23 04:40	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/28/23 04:40	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/28/23 04:40	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/28/23 04:40	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/28/23 04:40	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/28/23 04:40	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/28/23 04:40	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/28/23 04:40	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/28/23 04:40	1
Styrene	<1.00		1.00	0.370	ug/L			03/28/23 04:40	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/28/23 04:40	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/28/23 04:40	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/28/23 04:40	1
Toluene	<1.00		1.00	0.430	ug/L			03/28/23 04:40	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/28/23 04:40	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/28/23 04:40	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/28/23 04:40	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/28/23 04:40	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/28/23 04:40	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/28/23 04:40	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/28/23 04:40	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/28/23 04:40	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/28/23 04:40	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/28/23 04:40	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/28/23 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*03/28/23 04:40*	*1*

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-DS2

Date Collected: 03/21/23 16:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-17

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*80 - 128*		*03/28/23 04:40*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/28/23 04:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 14:30	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 14:30	1
Barium	**0.0169**		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 14:30	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 14:30	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 14:30	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:30	1
Cobalt	<0.000500		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 14:30	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 14:30	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 14:30	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 14:30	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 14:30	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 14:30	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 14:30	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 14:30	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**6.25**		1.88	0.638	mg/L			03/27/23 12:18	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: Trip Blank

Date Collected: 03/21/23 00:00
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-18

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/27/23 22:16	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/27/23 22:16	1
Benzene	<0.500		0.500	0.220	ug/L			03/27/23 22:16	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/27/23 22:16	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/27/23 22:16	1
Bromoform	<5.00		5.00	0.780	ug/L			03/27/23 22:16	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/27/23 22:16	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/27/23 22:16	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/27/23 22:16	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/27/23 22:16	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/27/23 22:16	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/27/23 22:16	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/27/23 22:16	1
Chloroform	<3.00		3.00	1.30	ug/L			03/27/23 22:16	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/27/23 22:16	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/27/23 22:16	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/27/23 22:16	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/27/23 22:16	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/27/23 22:16	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/27/23 22:16	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/27/23 22:16	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/27/23 22:16	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/27/23 22:16	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/27/23 22:16	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/27/23 22:16	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/27/23 22:16	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/27/23 22:16	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/27/23 22:16	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/27/23 22:16	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/27/23 22:16	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/27/23 22:16	1
Styrene	<1.00		1.00	0.370	ug/L			03/27/23 22:16	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/27/23 22:16	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/27/23 22:16	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/27/23 22:16	1
Toluene	<1.00		1.00	0.430	ug/L			03/27/23 22:16	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/27/23 22:16	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/27/23 22:16	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/27/23 22:16	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/27/23 22:16	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/27/23 22:16	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/27/23 22:16	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/27/23 22:16	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/27/23 22:16	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/27/23 22:16	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/27/23 22:16	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/27/23 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*03/27/23 22:16*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: Trip Blank

Date Collected: 03/21/23 00:00
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-18

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	99		80 - 128		03/27/23 22:16	1
Toluene-d8 (Surr)	98		80 - 120		03/27/23 22:16	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

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

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
310-252106-1	MW-06-7R	103	97	99
310-252106-1 MS	MW-06-7R	100	97	102
310-252106-1 MSD	MW-06-7R	101	96	101
310-252106-2	MW-05-8R	100	97	98
310-252106-3	MW-19	101	99	98
310-252106-4	MW-28	101	98	99
310-252106-5	MW-29	102	97	99
310-252106-6	MW-90-11	101	96	98
310-252106-7	MW-20	101	100	97
310-252106-8	MW-24	102	100	99
310-252106-9	MW-32	102	98	98
310-252106-10	MW-33	102	98	98
310-252106-11	GU-1	100	98	98
310-252106-12	MW-39	102	96	98
310-252106-13	MW-40	101	95	98
310-252106-14	MW-41	102	96	99
310-252106-15	MW-42	102	95	99
310-252106-16	MW-43BG	100	97	99
310-252106-17	MW-DS2	101	96	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
310-252106-18	Trip Blank	101	99	98
LCS 310-382269/6	Lab Control Sample	101	96	100
LCS 310-382269/7	Lab Control Sample	102	98	98
MB 310-382269/5	Method Blank	102	96	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2FP	PHL	TBP
Lab Sample ID	Client Sample ID	(13-110)	(12-110)	(15-121)
310-252106-10	MW-33	68	53	76

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: SCS Engineers
Job ID: 310-252106-1
Project/Site: CCASW ES 1st 2023 HMSP

TBP = 2,4,6-Tribromophenol (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2FP	PHL	TBP
Lab Sample ID	**Client Sample ID**	**(13-110)**	**(12-110)**	**(15-121)**
LCS 310-382259/2-A	Lab Control Sample	71	58	93
LCSD 310-382259/3-A	Lab Control Sample Dup	78	67	101
MB 310-382259/1-A	Method Blank	69	59	94

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DCPAA1
Lab Sample ID	**Client Sample ID**	**(25-130)**
LCS 500-704752/2-A	Lab Control Sample	77
LCSD 500-704752/3-A	Lab Control Sample Dup	75
MB 500-704752/1-A	Method Blank	74

Surrogate Legend

DCPAA = DCAA

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

Lab Sample ID: MB 310-382269/5
Matrix: Water
Analysis Batch: 382269

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			03/27/23 20:50	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			03/27/23 20:50	1
Benzene	<0.500		0.500	0.220	ug/L			03/27/23 20:50	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			03/27/23 20:50	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			03/27/23 20:50	1
Bromoform	<5.00		5.00	0.780	ug/L			03/27/23 20:50	1
Bromomethane	<4.00		4.00	1.10	ug/L			03/27/23 20:50	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			03/27/23 20:50	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			03/27/23 20:50	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			03/27/23 20:50	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			03/27/23 20:50	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			03/27/23 20:50	1
Chloroethane	<4.00		4.00	0.790	ug/L			03/27/23 20:50	1
Chloroform	<3.00		3.00	1.30	ug/L			03/27/23 20:50	1
Chloromethane	<3.00		3.00	0.610	ug/L			03/27/23 20:50	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			03/27/23 20:50	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			03/27/23 20:50	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			03/27/23 20:50	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			03/27/23 20:50	1
Dibromomethane	<1.00		1.00	0.330	ug/L			03/27/23 20:50	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			03/27/23 20:50	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			03/27/23 20:50	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			03/27/23 20:50	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			03/27/23 20:50	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			03/27/23 20:50	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			03/27/23 20:50	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			03/27/23 20:50	1
2-Hexanone	<10.0		10.0	2.00	ug/L			03/27/23 20:50	1
Iodomethane	<10.0		10.0	7.00	ug/L			03/27/23 20:50	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			03/27/23 20:50	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			03/27/23 20:50	1
Styrene	<1.00		1.00	0.370	ug/L			03/27/23 20:50	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			03/27/23 20:50	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			03/27/23 20:50	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			03/27/23 20:50	1
Toluene	<1.00		1.00	0.430	ug/L			03/27/23 20:50	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			03/27/23 20:50	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			03/27/23 20:50	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			03/27/23 20:50	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			03/27/23 20:50	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			03/27/23 20:50	1
Trichloroethene	<1.00		1.00	0.430	ug/L			03/27/23 20:50	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			03/27/23 20:50	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			03/27/23 20:50	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			03/27/23 20:50	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/27/23 20:50	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			03/27/23 20:50	1

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

Lab Sample ID: MB 310-382269/5
Matrix: Water
Analysis Batch: 382269

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		03/27/23 20:50	1
Dibromofluoromethane (Surr)	96		80 - 128		03/27/23 20:50	1
Toluene-d8 (Surr)	98		80 - 120		03/27/23 20:50	1

Lab Sample ID: LCS 310-382269/6
Matrix: Water
Analysis Batch: 382269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	40.0	42.22		ug/L		106	50 - 150
Acrylonitrile	200	188.9		ug/L		94	50 - 150
Benzene	20.0	19.20		ug/L		96	73 - 122
Bromochloromethane	20.0	18.02		ug/L		90	68 - 132
Bromodichloromethane	20.0	20.27		ug/L		101	72 - 121
Bromoform	20.0	19.30		ug/L		97	55 - 129
2-Butanone (MEK)	40.0	39.49		ug/L		99	50 - 150
Carbon disulfide	20.0	16.42		ug/L		82	58 - 131
Carbon tetrachloride	20.0	18.25		ug/L		91	67 - 132
Chlorobenzene	20.0	19.03		ug/L		95	69 - 121
Chlorodibromomethane	20.0	19.64		ug/L		98	69 - 122
Chloroform	20.0	18.33		ug/L		92	72 - 120
cis-1,2-Dichloroethene	20.0	18.18		ug/L		91	74 - 120
cis-1,3-Dichloropropene	20.0	18.82		ug/L		94	71 - 126
1,2-Dibromo-3-Chloropropane	20.0	19.70		ug/L		99	50 - 150
1,2-Dibromoethane (EDB)	20.0	19.73		ug/L		99	73 - 125
Dibromomethane	20.0	18.99		ug/L		95	72 - 123
1,2-Dichlorobenzene	20.0	19.11		ug/L		96	68 - 120
1,4-Dichlorobenzene	20.0	18.48		ug/L		92	67 - 120
1,1-Dichloroethane	20.0	18.63		ug/L		93	71 - 123
1,2-Dichloroethane	20.0	19.08		ug/L		95	70 - 124
1,1-Dichloroethene	20.0	17.07		ug/L		85	61 - 129
1,2-Dichloropropane	20.0	20.44		ug/L		102	73 - 121
Ethylbenzene	20.0	18.84		ug/L		94	69 - 122
2-Hexanone	40.0	40.39		ug/L		101	60 - 132
Iodomethane	20.0	13.04		ug/L		65	10 - 150
Methylene Chloride	20.0	19.76		ug/L		99	50 - 150
4-Methyl-2-pentanone (MIBK)	40.0	42.44		ug/L		106	62 - 130
Styrene	20.0	19.47		ug/L		97	67 - 125
1,1,1,2-Tetrachloroethane	20.0	19.69		ug/L		98	68 - 123
1,1,2,2-Tetrachloroethane	20.0	21.11		ug/L		106	64 - 124
Tetrachloroethene	20.0	17.23		ug/L		86	69 - 131
Toluene	20.0	19.10		ug/L		96	72 - 121
trans-1,4-Dichloro-2-butene	20.0	19.51		ug/L		98	48 - 150
trans-1,2-Dichloroethene	20.0	18.31		ug/L		92	68 - 125
trans-1,3-Dichloropropene	20.0	18.94		ug/L		95	68 - 124
1,1,1-Trichloroethane	20.0	18.78		ug/L		94	71 - 128
1,1,2-Trichloroethane	20.0	20.59		ug/L		103	70 - 124
Trichloroethene	20.0	18.87		ug/L		94	73 - 126

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

Lab Sample ID: LCS 310-382269/6
Matrix: Water
Analysis Batch: 382269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	20.0	20.94		ug/L		105	64 - 125
Vinyl acetate	40.0	33.02		ug/L		83	50 - 150
Xylenes, Total	40.0	37.09		ug/L		93	68 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 128*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCS 310-382269/7
Matrix: Water
Analysis Batch: 382269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	17.82		ug/L		89	24 - 150
Chloroethane	20.0	16.23		ug/L		81	51 - 137
Chloromethane	20.0	17.24		ug/L		86	37 - 150
Trichlorofluoromethane	20.0	16.38		ug/L		82	56 - 144
Vinyl chloride	20.0	17.64		ug/L		88	57 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 128*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: 310-252106-1 MS
Matrix: Ground Water
Analysis Batch: 382269

Client Sample ID: MW-06-7R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	<10.0		50.0	54.44		ug/L		109	35 - 150
Acrylonitrile	<10.0		250	241.5		ug/L		97	50 - 150
Benzene	<0.500		25.0	22.91		ug/L		92	47 - 130
Bromochloromethane	<5.00		25.0	21.94		ug/L		88	54 - 132
Bromodichloromethane	<1.00		25.0	26.21		ug/L		105	58 - 130
Bromoform	<5.00		25.0	24.29		ug/L		97	42 - 130
2-Butanone (MEK)	<10.0		50.0	54.41		ug/L		109	47 - 150
Carbon disulfide	<1.00		25.0	20.00		ug/L		80	39 - 131
Carbon tetrachloride	<2.00		25.0	20.80		ug/L		83	45 - 132
Chlorobenzene	<1.00		25.0	24.21		ug/L		97	54 - 130
Chlorodibromomethane	<5.00		25.0	25.26		ug/L		101	53 - 130
Chloroform	<3.00		25.0	22.50		ug/L		90	55 - 130
cis-1,2-Dichloroethene	<1.00		25.0	22.11		ug/L		88	52 - 130
cis-1,3-Dichloropropene	<5.00		25.0	24.02		ug/L		96	55 - 130
1,2-Dibromo-3-Chloropropane	<1.20		25.0	25.58		ug/L		102	45 - 150
1,2-Dibromoethane (EDB)	<0.340		25.0	25.65		ug/L		103	59 - 130
Dibromomethane	<1.00		25.0	24.25		ug/L		97	61 - 130
1,2-Dichlorobenzene	<1.00		25.0	24.80		ug/L		99	53 - 130

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

Lab Sample ID: 310-252106-1 MS
Matrix: Ground Water
Analysis Batch: 382269

Client Sample ID: MW-06-7R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	<1.00		25.0	23.96		ug/L		96	53 - 130
1,1-Dichloroethane	<1.00		25.0	21.93		ug/L		88	53 - 130
1,2-Dichloroethane	<1.00		25.0	23.87		ug/L		95	57 - 130
1,1-Dichloroethene	<2.00		25.0	19.91		ug/L		80	39 - 130
1,2-Dichloropropane	<1.00		25.0	25.56		ug/L		102	60 - 130
Ethylbenzene	<1.00		25.0	23.76		ug/L		95	48 - 130
2-Hexanone	<10.0		50.0	52.78		ug/L		106	45 - 132
Iodomethane	<10.0		25.0	12.49		ug/L		50	10 - 150
Methylene Chloride	<5.00		25.0	23.30		ug/L		93	50 - 150
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	55.21		ug/L		110	46 - 132
Styrene	<1.00		25.0	24.79		ug/L		99	46 - 130
1,1,1,2-Tetrachloroethane	<1.00		25.0	25.52		ug/L		102	52 - 130
1,1,2,2-Tetrachloroethane	<1.00		25.0	27.81		ug/L		111	51 - 130
Tetrachloroethene	<1.00		25.0	20.60		ug/L		82	42 - 131
Toluene	<1.00		25.0	23.19		ug/L		93	48 - 130
trans-1,4-Dichloro-2-butene	<10.0		25.0	24.78		ug/L		99	33 - 150
trans-1,2-Dichloroethene	<1.00		25.0	21.28		ug/L		85	54 - 130
trans-1,3-Dichloropropene	<5.00		25.0	23.92		ug/L		96	51 - 130
1,1,1-Trichloroethane	<1.00		25.0	21.86		ug/L		87	49 - 130
1,1,2-Trichloroethane	<1.00		25.0	26.77		ug/L		107	56 - 130
Trichloroethene	<1.00		25.0	22.56		ug/L		90	55 - 130
1,2,3-Trichloropropane	<1.00		25.0	26.73		ug/L		107	50 - 130
Vinyl acetate	<10.0		50.0	37.61		ug/L		75	34 - 150
Xylenes, Total	<3.00		50.0	47.06		ug/L		94	44 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 128*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 310-252106-1 MSD
Matrix: Ground Water
Analysis Batch: 382269

Client Sample ID: MW-06-7R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	<10.0		50.0	49.73		ug/L		99	35 - 150	9	26
Acrylonitrile	<10.0		250	228.3		ug/L		91	50 - 150	6	21
Benzene	<0.500		25.0	21.68		ug/L		87	47 - 130	6	20
Bromochloromethane	<5.00		25.0	21.28		ug/L		85	54 - 132	3	20
Bromodichloromethane	<1.00		25.0	25.09		ug/L		100	58 - 130	4	20
Bromoform	<5.00		25.0	23.55		ug/L		94	42 - 130	3	20
2-Butanone (MEK)	<10.0		50.0	49.74		ug/L		99	47 - 150	9	20
Carbon disulfide	<1.00		25.0	18.61		ug/L		74	39 - 131	7	32
Carbon tetrachloride	<2.00		25.0	20.09		ug/L		80	45 - 132	4	20
Chlorobenzene	<1.00		25.0	23.34		ug/L		93	54 - 130	4	20
Chlorodibromomethane	<5.00		25.0	24.67		ug/L		99	53 - 130	2	20
Chloroform	<3.00		25.0	21.84		ug/L		87	55 - 130	3	20
cis-1,2-Dichloroethene	<1.00		25.0	21.07		ug/L		84	52 - 130	5	20

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

Lab Sample ID: 310-252106-1 MSD
Matrix: Ground Water
Analysis Batch: 382269

Client Sample ID: MW-06-7R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	<5.00		25.0	22.87		ug/L		91	55 - 130	5	20
1,2-Dibromo-3-Chloropropane	<1.20		25.0	25.41		ug/L		102	45 - 150	1	20
1,2-Dibromoethane (EDB)	<0.340		25.0	24.21		ug/L		97	59 - 130	6	20
Dibromomethane	<1.00		25.0	22.89		ug/L		92	61 - 130	6	20
1,2-Dichlorobenzene	<1.00		25.0	24.39		ug/L		98	53 - 130	2	20
1,4-Dichlorobenzene	<1.00		25.0	23.58		ug/L		94	53 - 130	2	20
1,1-Dichloroethane	<1.00		25.0	21.14		ug/L		85	53 - 130	4	20
1,2-Dichloroethane	<1.00		25.0	22.98		ug/L		92	57 - 130	4	21
1,1-Dichloroethene	<2.00		25.0	18.92		ug/L		76	39 - 130	5	28
1,2-Dichloropropane	<1.00		25.0	24.57		ug/L		98	60 - 130	4	31
Ethylbenzene	<1.00		25.0	22.96		ug/L		92	48 - 130	3	20
2-Hexanone	<10.0		50.0	51.08		ug/L		102	45 - 132	3	20
Iodomethane	<10.0		25.0	14.93		ug/L		60	10 - 150	18	35
Methylene Chloride	<5.00		25.0	22.41		ug/L		90	50 - 150	4	24
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	52.30		ug/L		105	46 - 132	5	20
Styrene	<1.00		25.0	24.18		ug/L		97	46 - 130	2	20
1,1,1,2-Tetrachloroethane	<1.00		25.0	24.88		ug/L		100	52 - 130	3	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	26.39		ug/L		106	51 - 130	5	20
Tetrachloroethene	<1.00		25.0	20.02		ug/L		80	42 - 131	3	20
Toluene	<1.00		25.0	22.49		ug/L		90	48 - 130	3	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	24.29		ug/L		97	33 - 150	2	20
trans-1,2-Dichloroethene	<1.00		25.0	20.44		ug/L		82	54 - 130	4	24
trans-1,3-Dichloropropene	<5.00		25.0	23.36		ug/L		93	51 - 130	2	20
1,1,1-Trichloroethane	<1.00		25.0	20.93		ug/L		84	49 - 130	4	20
1,1,2-Trichloroethane	<1.00		25.0	25.54		ug/L		102	56 - 130	5	20
Trichloroethene	<1.00		25.0	21.60		ug/L		86	55 - 130	4	20
1,2,3-Trichloropropane	<1.00		25.0	25.50		ug/L		102	50 - 130	5	20
Vinyl acetate	<10.0		50.0	36.38		ug/L		73	34 - 150	3	27
Xylenes, Total	<3.00		50.0	45.78		ug/L		92	44 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 128*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 310-382259/1-A
Matrix: Water
Analysis Batch: 382466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 382259

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,4-Methylphenol	<10.0		10.0	0.700	ug/L		03/27/23 09:25	03/28/23 13:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*69*		*13 - 110*	*03/27/23 09:25*	*03/28/23 13:21*	*1*
Phenol-d5 (Surr)	*59*		*12 - 110*	*03/27/23 09:25*	*03/28/23 13:21*	*1*
2,4,6-Tribromophenol (Surr)	*94*		*15 - 121*	*03/27/23 09:25*	*03/28/23 13:21*	*1*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-382259/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 382466 — **Prep Batch: 382259**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
3,4-Methylphenol			100	85.23		ug/L		85	24 - 110		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*71*		*13 - 110*
Phenol-d5 (Surr)	*58*		*12 - 110*
2,4,6-Tribromophenol (Surr)	*93*		*15 - 121*

Lab Sample ID: LCSD 310-382259/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 382466 — **Prep Batch: 382259**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,4-Methylphenol			100	89.15		ug/L		89	24 - 110	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorophenol (Surr)	*78*		*13 - 110*
Phenol-d5 (Surr)	*67*		*12 - 110*
2,4,6-Tribromophenol (Surr)	*101*		*15 - 121*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-704752/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 705220 — **Prep Batch: 704752**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<1.00		1.00	0.540	ug/L		03/29/23 08:26	03/31/23 09:51	1

Lab Sample ID: LCS 500-704752/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 705220 — **Prep Batch: 704752**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4-D			10.1	7.420		ug/L		74	30 - 115		
Silvex (2,4,5-TP)			2.50	1.723		ug/L		69	32 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*77*		*25 - 130*

Lab Sample ID: LCSD 500-704752/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 705220 — **Prep Batch: 704752**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D			10.1	7.213		ug/L		72	30 - 115	3	20
Silvex (2,4,5-TP)			2.50	1.661		ug/L		66	32 - 115	4	20

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 500-704752/3-A
Matrix: Water
Analysis Batch: 705220

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 704752

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCAA	*75*		*25 - 130*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-382511/1-A
Matrix: Water
Analysis Batch: 382773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 382511

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.000690	mg/L		03/29/23 10:20	03/30/23 12:22	1
Arsenic	<0.00200		0.00200	0.000750	mg/L		03/29/23 10:20	03/30/23 12:22	1
Barium	<0.00200		0.00200	0.000880	mg/L		03/29/23 10:20	03/30/23 12:22	1
Beryllium	<0.00100		0.00100	0.000270	mg/L		03/29/23 10:20	03/30/23 12:22	1
Cadmium	<0.000100		0.000100	0.0000550	mg/L		03/29/23 10:20	03/30/23 12:22	1
Chromium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:22	1
Cobalt	<0.000500		0.000500	0.000190	mg/L		03/29/23 10:20	03/30/23 12:22	1
Copper	<0.00500		0.00500	0.00180	mg/L		03/29/23 10:20	03/30/23 12:22	1
Lead	<0.000500		0.000500	0.000240	mg/L		03/29/23 10:20	03/30/23 12:22	1
Nickel	<0.00500		0.00500	0.00190	mg/L		03/29/23 10:20	03/30/23 12:22	1
Selenium	<0.00500		0.00500	0.000960	mg/L		03/29/23 10:20	03/30/23 12:22	1
Silver	<0.00100		0.00100	0.000490	mg/L		03/29/23 10:20	03/30/23 12:22	1
Thallium	<0.00100		0.00100	0.000260	mg/L		03/29/23 10:20	03/30/23 12:22	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		03/29/23 10:20	03/30/23 12:22	1
Zinc	<0.0200		0.0200	0.0100	mg/L		03/29/23 10:20	03/30/23 12:22	1

Lab Sample ID: LCS 310-382511/2-A
Matrix: Water
Analysis Batch: 382773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 382511

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2048		mg/L		102	80 - 120
Arsenic	0.200	0.2047		mg/L		102	80 - 120
Barium	0.100	0.09698		mg/L		97	80 - 120
Beryllium	0.100	0.1011		mg/L		101	80 - 120
Cadmium	0.100	0.09855		mg/L		99	80 - 120
Chromium	0.100	0.1044		mg/L		104	80 - 120
Cobalt	0.100	0.1034		mg/L		103	80 - 120
Copper	0.200	0.2102		mg/L		105	80 - 120
Lead	0.200	0.2012		mg/L		101	80 - 120
Nickel	0.200	0.2051		mg/L		103	80 - 120
Selenium	0.400	0.3941		mg/L		99	80 - 120
Silver	0.100	0.1014		mg/L		101	80 - 120
Thallium	0.200	0.2101		mg/L		105	80 - 120
Vanadium	0.100	0.09938		mg/L		99	80 - 120
Zinc	0.200	0.1992		mg/L		100	80 - 120

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

Lab Sample ID: 310-252106-1 MS
Matrix: Ground Water
Analysis Batch: 382773

Client Sample ID: MW-06-7R
Prep Type: Total/NA
Prep Batch: 382511

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2097		mg/L		105	75 - 125
Arsenic	0.00246		0.200	0.2137		mg/L		106	75 - 125
Barium	0.111		0.100	0.2089		mg/L		98	75 - 125
Beryllium	<0.00100		0.100	0.1043		mg/L		104	75 - 125
Cadmium	0.000137		0.100	0.09929		mg/L		99	75 - 125
Chromium	<0.00500		0.100	0.1049		mg/L		105	75 - 125
Cobalt	<0.000500		0.100	0.1009		mg/L		101	75 - 125
Copper	<0.00500		0.200	0.2062		mg/L		103	75 - 125
Lead	0.000307	J	0.200	0.1998		mg/L		100	75 - 125
Nickel	<0.00500		0.200	0.1976		mg/L		99	75 - 125
Selenium	0.00161	J	0.400	0.4136		mg/L		103	75 - 125
Silver	0.00138		0.100	0.1007		mg/L		99	75 - 125
Thallium	0.000895	J	0.200	0.2082		mg/L		104	75 - 125
Vanadium	<0.00500		0.100	0.09995		mg/L		100	75 - 125
Zinc	<0.0200		0.200	0.1993		mg/L		100	75 - 125

Lab Sample ID: 310-252106-1 MSD
Matrix: Ground Water
Analysis Batch: 382773

Client Sample ID: MW-06-7R
Prep Type: Total/NA
Prep Batch: 382511

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2133		mg/L		107	75 - 125	2	20
Arsenic	0.00246		0.200	0.2123		mg/L		105	75 - 125	1	20
Barium	0.111		0.100	0.2102		mg/L		99	75 - 125	1	20
Beryllium	<0.00100		0.100	0.1084		mg/L		108	75 - 125	4	20
Cadmium	0.000137		0.100	0.1004		mg/L		100	75 - 125	1	20
Chromium	<0.00500		0.100	0.1018		mg/L		102	75 - 125	3	20
Cobalt	<0.000500		0.100	0.1014		mg/L		101	75 - 125	0	20
Copper	<0.00500		0.200	0.2042		mg/L		102	75 - 125	1	20
Lead	0.000307	J	0.200	0.2022		mg/L		101	75 - 125	1	20
Nickel	<0.00500		0.200	0.2017		mg/L		101	75 - 125	2	20
Selenium	0.00161	J	0.400	0.4123		mg/L		103	75 - 125	0	20
Silver	0.00138		0.100	0.1038		mg/L		102	75 - 125	3	20
Thallium	0.000895	J	0.200	0.2118		mg/L		105	75 - 125	2	20
Vanadium	<0.00500		0.100	0.09993		mg/L		100	75 - 125	0	20
Zinc	<0.0200		0.200	0.1989		mg/L		99	75 - 125	0	20

Lab Sample ID: 310-252106-11 DU
Matrix: Ground Water
Analysis Batch: 382773

Client Sample ID: GU-1
Prep Type: Total/NA
Prep Batch: 382511

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	0.0200		0.02054		mg/L		3	20
Barium	0.455		0.4558		mg/L		0.2	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Cadmium	<0.000100		<0.000100		mg/L		NC	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	0.000518		0.0004900	J	mg/L		6	20

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

Lab Sample ID: 310-252106-11 DU — **Client Sample ID: GU-1**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 382773 — **Prep Batch: 382511**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Nickel	0.00478	J	0.004675	J	mg/L		2	20
Selenium	<0.00500		<0.00500		mg/L		NC	20
Silver	<0.00100		<0.00100		mg/L		NC	20
Thallium	<0.00100		<0.00100		mg/L		NC	20
Vanadium	<0.00500		<0.00500		mg/L		NC	20
Zinc	<0.0200		<0.0200		mg/L		NC	20

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

Lab Sample ID: MB 310-382320/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 382320

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	1.70	mg/L			03/27/23 12:18	1

Lab Sample ID: LCS 310-382320/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 382320

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	101.0		mg/L		101	75 - 116

Lab Sample ID: MB 310-382392/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 382392

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	1.70	mg/L			03/28/23 07:19	1

Lab Sample ID: LCS 310-382392/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 382392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	100.0		mg/L		100	75 - 116

QC Association Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

GC/MS VOA

Analysis Batch: 382269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-1	MW-06-7R	Total/NA	Ground Water	8260D	
310-252106-2	MW-05-8R	Total/NA	Ground Water	8260D	
310-252106-3	MW-19	Total/NA	Ground Water	8260D	
310-252106-4	MW-28	Total/NA	Ground Water	8260D	
310-252106-5	MW-29	Total/NA	Ground Water	8260D	
310-252106-6	MW-90-11	Total/NA	Ground Water	8260D	
310-252106-7	MW-20	Total/NA	Ground Water	8260D	
310-252106-8	MW-24	Total/NA	Ground Water	8260D	
310-252106-9	MW-32	Total/NA	Ground Water	8260D	
310-252106-10	MW-33	Total/NA	Ground Water	8260D	
310-252106-11	GU-1	Total/NA	Ground Water	8260D	
310-252106-12	MW-39	Total/NA	Ground Water	8260D	
310-252106-13	MW-40	Total/NA	Ground Water	8260D	
310-252106-14	MW-41	Total/NA	Ground Water	8260D	
310-252106-15	MW-42	Total/NA	Ground Water	8260D	
310-252106-16	MW-43BG	Total/NA	Ground Water	8260D	
310-252106-17	MW-DS2	Total/NA	Ground Water	8260D	
310-252106-18	Trip Blank	Total/NA	Water	8260D	
MB 310-382269/5	Method Blank	Total/NA	Water	8260D	
LCS 310-382269/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-382269/7	Lab Control Sample	Total/NA	Water	8260D	
310-252106-1 MS	MW-06-7R	Total/NA	Ground Water	8260D	
310-252106-1 MSD	MW-06-7R	Total/NA	Ground Water	8260D	

GC/MS Semi VOA

Prep Batch: 382259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-10	MW-33	Total/NA	Ground Water	3510C	
MB 310-382259/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-382259/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-382259/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 382466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-10	MW-33	Total/NA	Ground Water	8270E	382259
MB 310-382259/1-A	Method Blank	Total/NA	Water	8270E	382259
LCS 310-382259/2-A	Lab Control Sample	Total/NA	Water	8270E	382259
LCSD 310-382259/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	382259

GC Semi VOA

Prep Batch: 704752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-10	MW-33	Total/NA	Ground Water	8151A	
MB 500-704752/1-A	Method Blank	Total/NA	Water	8151A	
LCS 500-704752/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 500-704752/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 705220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-10	MW-33	Total/NA	Ground Water	8151A	704752

GC Semi VOA (Continued)

Analysis Batch: 705220 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-704752/1-A	Method Blank	Total/NA	Water	8151A	704752
LCS 500-704752/2-A	Lab Control Sample	Total/NA	Water	8151A	704752
LCSD 500-704752/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	704752

Metals

Prep Batch: 382511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-1	MW-06-7R	Total/NA	Ground Water	3005A	
310-252106-2	MW-05-8R	Total/NA	Ground Water	3005A	
310-252106-3	MW-19	Total/NA	Ground Water	3005A	
310-252106-4	MW-28	Total/NA	Ground Water	3005A	
310-252106-5	MW-29	Total/NA	Ground Water	3005A	
310-252106-6	MW-90-11	Total/NA	Ground Water	3005A	
310-252106-7	MW-20	Total/NA	Ground Water	3005A	
310-252106-8	MW-24	Total/NA	Ground Water	3005A	
310-252106-9	MW-32	Total/NA	Ground Water	3005A	
310-252106-10	MW-33	Total/NA	Ground Water	3005A	
310-252106-11	GU-1	Total/NA	Ground Water	3005A	
310-252106-12	MW-39	Total/NA	Ground Water	3005A	
310-252106-13	MW-40	Total/NA	Ground Water	3005A	
310-252106-14	MW-41	Total/NA	Ground Water	3005A	
310-252106-15	MW-42	Total/NA	Ground Water	3005A	
310-252106-16	MW-43BG	Total/NA	Ground Water	3005A	
310-252106-17	MW-DS2	Total/NA	Ground Water	3005A	
MB 310-382511/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-382511/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-252106-1 MS	MW-06-7R	Total/NA	Ground Water	3005A	
310-252106-1 MSD	MW-06-7R	Total/NA	Ground Water	3005A	
310-252106-11 DU	GU-1	Total/NA	Ground Water	3005A	

Analysis Batch: 382773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-1	MW-06-7R	Total/NA	Ground Water	6020B	382511
310-252106-2	MW-05-8R	Total/NA	Ground Water	6020B	382511
310-252106-3	MW-19	Total/NA	Ground Water	6020B	382511
310-252106-4	MW-28	Total/NA	Ground Water	6020B	382511
310-252106-5	MW-29	Total/NA	Ground Water	6020B	382511
310-252106-6	MW-90-11	Total/NA	Ground Water	6020B	382511
310-252106-7	MW-20	Total/NA	Ground Water	6020B	382511
310-252106-7	MW-20	Total/NA	Ground Water	6020B	382511
310-252106-8	MW-24	Total/NA	Ground Water	6020B	382511
310-252106-9	MW-32	Total/NA	Ground Water	6020B	382511
310-252106-10	MW-33	Total/NA	Ground Water	6020B	382511
310-252106-11	GU-1	Total/NA	Ground Water	6020B	382511
310-252106-12	MW-39	Total/NA	Ground Water	6020B	382511
310-252106-13	MW-40	Total/NA	Ground Water	6020B	382511
310-252106-14	MW-41	Total/NA	Ground Water	6020B	382511
310-252106-15	MW-42	Total/NA	Ground Water	6020B	382511
310-252106-16	MW-43BG	Total/NA	Ground Water	6020B	382511
310-252106-17	MW-DS2	Total/NA	Ground Water	6020B	382511

Metals (Continued)

Analysis Batch: 382773 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-382511/1-A	Method Blank	Total/NA	Water	6020B	382511
LCS 310-382511/2-A	Lab Control Sample	Total/NA	Water	6020B	382511
310-252106-1 MS	MW-06-7R	Total/NA	Ground Water	6020B	382511
310-252106-1 MSD	MW-06-7R	Total/NA	Ground Water	6020B	382511
310-252106-11 DU	GU-1	Total/NA	Ground Water	6020B	382511

General Chemistry

Analysis Batch: 382320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-1	MW-06-7R	Total/NA	Ground Water	I-3765-85	
310-252106-2	MW-05-8R	Total/NA	Ground Water	I-3765-85	
310-252106-4	MW-28	Total/NA	Ground Water	I-3765-85	
310-252106-6	MW-90-11	Total/NA	Ground Water	I-3765-85	
310-252106-12	MW-39	Total/NA	Ground Water	I-3765-85	
310-252106-13	MW-40	Total/NA	Ground Water	I-3765-85	
310-252106-14	MW-41	Total/NA	Ground Water	I-3765-85	
310-252106-15	MW-42	Total/NA	Ground Water	I-3765-85	
310-252106-16	MW-43BG	Total/NA	Ground Water	I-3765-85	
310-252106-17	MW-DS2	Total/NA	Ground Water	I-3765-85	
MB 310-382320/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-382320/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 382392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252106-3	MW-19	Total/NA	Ground Water	I-3765-85	
310-252106-5	MW-29	Total/NA	Ground Water	I-3765-85	
310-252106-7	MW-20	Total/NA	Ground Water	I-3765-85	
310-252106-8	MW-24	Total/NA	Ground Water	I-3765-85	
310-252106-9	MW-32	Total/NA	Ground Water	I-3765-85	
310-252106-10	MW-33	Total/NA	Ground Water	I-3765-85	
310-252106-11	GU-1	Total/NA	Ground Water	I-3765-85	
MB 310-382392/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-382392/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-06-7R
Date Collected: 03/21/23 10:32
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/27/23 22:59
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 12:28
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-05-8R
Date Collected: 03/21/23 16:33
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/27/23 23:20
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 12:44
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-19
Date Collected: 03/22/23 11:02
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/27/23 23:41
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 12:48
Total/NA	Analysis	I-3765-85		1	382392	DGU1	EET CF	03/28/23 07:19

Client Sample ID: MW-28
Date Collected: 03/21/23 12:02
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 00:03
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:15
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-29
Date Collected: 03/22/23 12:53
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 00:24
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:19
Total/NA	Analysis	I-3765-85		1	382392	DGU1	EET CF	03/28/23 07:19

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-90-11
Date Collected: 03/21/23 12:37
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-6
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 00:45
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:22
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-20
Date Collected: 03/22/23 11:24
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-7
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 01:07
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:26
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		4	382773	A6US	EET CF	03/30/23 14:00
Total/NA	Analysis	I-3765-85		1	382392	DGU1	EET CF	03/28/23 07:19

Client Sample ID: MW-24
Date Collected: 03/22/23 12:04
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 01:28
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:29
Total/NA	Analysis	I-3765-85		1	382392	DGU1	EET CF	03/28/23 07:19

Client Sample ID: MW-32
Date Collected: 03/23/23 14:16
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-9
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 01:49
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:32
Total/NA	Analysis	I-3765-85		1	382392	DGU1	EET CF	03/28/23 07:19

Client Sample ID: MW-33
Date Collected: 03/22/23 16:08
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-10
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 02:11
Total/NA	Prep	3510C			382259	Y6AF	EET CF	03/27/23 09:25
Total/NA	Analysis	8270E		1	382466	L0FS	EET CF	03/28/23 21:47

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-33
Date Collected: 03/22/23 16:08
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-10
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	8151A			704752	TS	EET CHI	03/29/23 08:26
Total/NA	Analysis	8151A		1	705220	SB	EET CHI	03/31/23 15:50
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:36
Total/NA	Analysis	I-3765-85		1	382392	DGU1	EET CF	03/28/23 07:19

Client Sample ID: GU-1
Date Collected: 03/23/23 09:41
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-11
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 02:32
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 13:39
Total/NA	Analysis	I-3765-85		1	382392	DGU1	EET CF	03/28/23 07:19

Client Sample ID: MW-39
Date Collected: 03/21/23 11:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-12
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 02:53
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 14:13
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-40
Date Collected: 03/21/23 16:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-13
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 03:15
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 14:17
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-41
Date Collected: 03/21/23 14:51
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-14
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 03:36
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 14:20
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Client Sample ID: MW-42
Date Collected: 03/23/23 15:33
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-15
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 03:57
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 14:24
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-43BG
Date Collected: 03/21/23 09:38
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-16
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 04:19
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 14:27
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: MW-DS2
Date Collected: 03/21/23 16:21
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-17
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/28/23 04:40
Total/NA	Prep	3005A			382511	QTZ5	EET CF	03/29/23 10:20
Total/NA	Analysis	6020B		1	382773	A6US	EET CF	03/30/23 14:30
Total/NA	Analysis	I-3765-85		1	382320	D7CP	EET CF	03/27/23 12:18

Client Sample ID: Trip Blank
Date Collected: 03/21/23 00:00
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252106-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382269	WSE8	EET CF	03/27/23 22:16

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	04-12-23

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	082	05-01-24

Method Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-252106-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET CF
8151A	Herbicides (GC)	SW846	EET CHI
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
8151A	Extraction (Herbicides)	SW846	EET CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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310-252106 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 5/24/23 | TIME 1615 | Received By: AM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 1 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: W | Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.1 | Corrected Temp (°C): 1.1

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

P2R4 MW40 M-DS2 MW05-8R
P2R3 MW41 MW90-15R
MW32

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 3/24/23 TIME 1615 | Received By: AM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 2 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: W | Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): | Corrected Temp (°C):

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	1L NT	
Uncorrected Temp (°C):	0.5	
Corrected Temp (°C):	0.5	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

MW32 MW43BG
MW90-11 MW39
MW28 MW06-7R

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 3/24/23 | TIME 1615 | Received By: AM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 3 of 4
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☒ Yes	☐ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: W | Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.6 | Corrected Temp (°C): 0.6

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

MW42
GW-1
MW33

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SLS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 3/24/23 TIME 1615 | Received By: AM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 4 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: W | Correction Factor (°C): 0

Temp Blank Temperature If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.1 | Corrected Temp (°C): 1.1

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

MWDN. MW20 MW90-5 MW19
MW03-16 MW90-13 MW90-18
MW24 MW 29

TestAmerica

704 Enterprise Drive
Cedar Falls, Iowa 50613

319 277 2401 (phone)
515 792.7989 (fax)

SAMPLER: SCS engineers
SITE NAME: Clinton County Sanitary Landfill (East-South)
ADDRESS:
CITY/STATE/ZIP:
TELEPHONE NUMBER: Fax:
SAMPLED BY (PRINT NAME) Scott Stoller
SIGNATURE:

REPORT TO:
NAME: Nathan Ohrt (nohrt@scsengineers.com
COMPANY NAME: SCS Engineers
PROJECT NAME: CCASW ES 1st 2023 HMSP
PROJECT NUMBER: 23001
ADDRESS: 1690 All State Court, Suite 100
CITY/STATE/ZIP: West Des Moines, IA 50265

Sample ID	# of Containers Ordered	Date Sampled	Time Sampled	# of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO3 (Red & White Label)	HCL (Blue & White Label)	NaOH (Orange & White Label)	H2SO4 (Plastic (Yellow & White Label)	H2SO4 (Glass (Yellow & White Label)	None (Black & White Label)	Trip Blank	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Trip Blank	Analyze For: Appendix I	Total Suspended Solids	2,4 D	3/4-Methylphenol	Trip Blank				Fax Results
MW-06-7R		3-21	10:33		X			X								X						X	X							
MW-05-2								X								X						X	X							
MW-05-3								X								X						X	X							
MW-05-8R		3-21	16 33		X			X								X						X	X							
MW 19		3 22	11 02		X			X								X						X	X							
MW-25R								X								X						X	X							
MW-28		3-21	12 02		X			X								X						X	X							
MW 29		3 22	12 53		X			X								X						X	X							
MW-90-11		3-21	12 37		X			X								X						X	X							
MW-20		3-22	11 24		X			X								X						X	X							
MW-24		3 22	12 04		X			X								X						X	X							
MW-32		3-23	14 16		X			X								X						X	X							
MW-33		3-22	16 08		X			X								X						X	X	X	X					
UD-2								X								X						X	X							
GU-1		3 23	8 41		X			X								X						X	X							
MW-39		3-21	11.21		X			X								X						X	X							
MW-40		3-21	16 21		X			X								X						X	X							
MW-41		3-21	14 51		X			X								X						X	X							
MW-42		3-23	15 33		X			X								X						X	X							
MW-43BG		3-21	9 38		X			X								X						X	X							
MW-DS1								X								X						X	X							
MW-DS2		3-21	16-21		X																	X	X							
Trip Blank																					X					X				

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Time
[signature]	3/24	13 00					

Shipped Via:
Received for lab by: MV
Date: 3/24/23
Time: 1615
Comments.
Temperature Upon Receipt
Shipped Via.

(1) For Appendix I and analysis, report to the reporting limits, not the detection limits. Make sure that the reporting limits are below the EPA MCLs.
(2) For analysis other than Appendix I and report to the detection limits. Please make sure that the detection limits are below the EPA MCLs.
(3) In the "Result" column for all EDD files, when non-detect, please report the reporting limit or the detection limit instead of indicating with "ND".

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone 319 277-2401 Fax 319-277 2425

Chain of Custody Record

eurofins

310-252106 COC

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Thompson Shirley J	COC No.: 310-59641 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Shirley Thompson@et eurofinsus com | Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State Program - Iowa	Job #: 310-252106-1
Address: 2417 Bond Street,	Due Date Requested: 4/6/2023		
City: University Park	TAT Requested (days):		
State Zip: IL 60484			
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #:		
Email:	WO #:		
Project Name: CCASW ES 1st 2023 HMSP	Project #: 31002710		
Site:	SSOW#:		

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8151A/8151A_AP (MOD) 2,4-D/2,4,5-TP	Total Number of containers	Special Instructions/Note
			Preservation Code						
MW-33 (310-252106-10)	3/22/23	16 08 Central		Water			X	2	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing North Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing North Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing North Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central LLC

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:		
Relinquished by: T Shelk	Date/Time: 32723 1405	Company	Received by: Stephanie Hernandez	Date/Time: 3/28/23 1010	Company: EEIA
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by	Date/Time	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 2.1+2.0		

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-252106-1

Login Number: 252106
List Number: 1
Creator: Costello, Mackenzie K

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-252106-1

Login Number: 252106
List Number: 2
Creator: Hernandez, Stephanie

List Source: Eurofins Chicago
List Creation: 03/28/23 10:55 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Nathan Ohrt
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 5/2/2023 4:27:01 PM Revision 1

JOB DESCRIPTION

CCASW ES 1st Bracketing

JOB NUMBER

310-252145-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Eurofins Cedar Falls

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization

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Authorized for release by
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Job ID: 310-252145-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-252145-1

Receipt
The sample was received on 3/24/2023 4:15 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 11.0°C

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

Sample Summary

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-252145-1	MW-90-18	Water	03/21/23 00:00	03/24/23 16:15

Detection Summary

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

Client Sample ID: MW-90-18

Lab Sample ID: 310-252145-1

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

Client Sample ID: MW-90-18

Lab Sample ID: 310-252145-1

Date Collected: 03/21/23 00:00

Matrix: Water

Date Received: 03/24/23 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/29/23 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*80 - 128*		*03/29/23 19:34*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/29/23 19:34*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*03/29/23 19:34*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	**Client Sample ID**	**(80-128)**	**(80-120)**	**(80-120)**
310-252145-1	MW-90-18	94	99	102
LCS 310-382635/6	Lab Control Sample	97	101	101
LCS 310-382635/7	Lab Control Sample	96	100	102
MB 310-382635/5	Method Blank	94	99	103

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

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

Lab Sample ID: MB 310-382635/5
Matrix: Water
Analysis Batch: 382635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<1.00		1.00	0.180	ug/L			03/29/23 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*80 - 128*		*03/29/23 17:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/29/23 17:26*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*03/29/23 17:26*	*1*

Lab Sample ID: LCS 310-382635/6
Matrix: Water
Analysis Batch: 382635

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*80 - 128*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

Lab Sample ID: LCS 310-382635/7
Matrix: Water
Analysis Batch: 382635

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			20.0	17.49		ug/L		87	57 - 136		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*80 - 128*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*

QC Association Summary

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

GC/MS VOA

Analysis Batch: 382635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-252145-1	MW-90-18	Total/NA	Water	8260D	
MB 310-382635/5	Method Blank	Total/NA	Water	8260D	
LCS 310-382635/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-382635/7	Lab Control Sample	Total/NA	Water	8260D	

Lab Chronicle

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

Client Sample ID: MW-90-18

Date Collected: 03/21/23 00:00
Date Received: 03/24/23 16:15

Lab Sample ID: 310-252145-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	382635	WSE8	EET CF	03/29/23 19:34

Laboratory References:

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

Accreditation/Certification Summary

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

Method Summary

Client: Evora Consulting
Project/Site: CCASW ES 1st Bracketing

Job ID: 310-252145-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

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310-252145 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 3/24/23 | TIME 1615 | Received By: AM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☒ Yes ☐ No *If yes:* Cooler # 4 of 4

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: W | Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.1 | Corrected Temp (°C): 1.1

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

MWDW. MW20 MW90-5 MW19
MW03-16 MW90-13 MW90-18
MW24 MW-29 recd-not on any COC

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

704 Enterprise Drive
Cedar Falls, Iowa 50613

319.277.2401 (phone)
515.792.7989 (fax)

SAMPLER:
SITE NAME: Clinton County Sanitary Landfill (East-South)
ADDRESS:
CITY/STATE/ZIP:
TELEPHONE NUMBER: Fax:
SAMPLED BY: (PRINT NAME)
SIGNATURE:

REPORT TO:
NAME: Nathan Ohrt (nohrt@scsengineers.com)
COMPANY NAME: SCS Engineers
PROJECT NAME: CCASW ES 1st 2023 Bracketing
PROJECT NUMBER: 23001
ADDRESS: 1690 All State Coury, Suite 100
CITY/STATE/ZIP: West Des Moines, IA 50265

####

Sample ID	# of Containers Ordered	Date Sampled	Time Sampled	# of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	Preservative: HNO_3 (Red & White Label)	Preservative: HCl (Blue & White Label)	Preservative: NaOH (Orange & White Label)	Preservative: H_2SO_4 Plastic (Yellow & White Label)	Preservative: H_2SO_4 Glass (Yellow & White Label)	Preservative: None (Black & White Label)	Preservative: Trip Blank	Matrix: Groundwater	Matrix: Wastewater	Matrix: Drinking Water	Matrix: Sludge	Matrix: Soil	Matrix: Trip Blank	Analyze For: Vinyl Chloride	Analyze For: Barium	Analyze For: Cobalt	Analyze For: Total Suspended Solids		Analyze For: Trip Blank			Analyze For: Trip Blank		Fax Results
MW-90-18								X								X						X										
MW-34								X								X						X			X							
Trip Blank								X													X						X					
																														X		

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Shipped Via:			Comments:			Shipped Via:		
Received for lab by: Ca Cal 3-27-23	Date: 1615	Time:	Temperature Upon Receipt:					

Laboratory Comments: (1) For Appendix I and II analysis, report to the reporting limits, not the detection limits. Make sure that the reporting limits are below the EPA's MCLs.
(2) For analysis other than Appendix I and II, report to the detection limits. Please make sure that the detection limits are below the EPA's MCLs.
(3) In the "Result" column for all EDD files, when non-detect, please report "<" the reporting limits or the detection limits instead of indicating with "ND"

Login Sample Receipt Checklist

Client: Evora Consulting

Job Number: 310-252145-1

Login Number: 252145
List Number: 1
Creator: Thompson, Shirley J

List Source: Eurofins Cedar Falls

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Nathan Ohrt
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 8/28/2023 11:13:33 AM

JOB DESCRIPTION

CCASW ES 1st 2023 HMSP
SDG NUMBER 2301

JOB NUMBER

310-262782-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Eurofins Cedar Falls

Job Notes

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Authorized for release by
Meredith Liechti, Service Center Manager
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(319)277-2401

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Job ID: 310-262782-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-262782-1

Receipt
The samples were received on 8/17/2023 8:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.1°C

GC/MS VOA
Method 8260D: The surrogate recovery for the LCS associated with analytical batch 310-397418 was outside the upper control limits.

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

GC/MS Semi VOA
Method 8270E: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-397025.The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 8270E: Internal standard (ISTD) response for the following sample was outside of acceptance limits: (MB 310-397025/1-A). The ISTD failed low, causing results to be biased high. Since all associated hits are below the reporting limit, results will be reported.

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

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

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

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

Sample Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-262782-1	MW-19	Ground Water	08/15/23 12:45	08/17/23 08:35
310-262782-2	MW-90-11	Ground Water	08/15/23 16:50	08/17/23 08:35
310-262782-3	MW-20	Ground Water	08/15/23 11:20	08/17/23 08:35
310-262782-4	MW-24	Ground Water	08/15/23 09:46	08/17/23 08:35
310-262782-5	MW-32	Ground Water	08/15/23 19:05	08/17/23 08:35
310-262782-6	MW-33	Ground Water	08/15/23 18:25	08/17/23 08:35

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-19 — Lab Sample ID: 310-262782-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.51	J	10.0	3.10	ug/L	1		8260D	Total/NA
Arsenic	0.000886	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.166		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cadmium	0.000279		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.000557		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00188	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.000986	B	0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00190	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Selenium	0.00260	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Thallium	0.00186		0.00100	0.000260	mg/L	1		6020B	Total/NA
Vanadium	0.00110	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Total Suspended Solids	15.5		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-90-11 — Lab Sample ID: 310-262782-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.75	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	0.341	J	0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	6.11		1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	1.29	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.80		1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.59		1.00	0.220	ug/L	1		8260D	Total/NA
Arsenic	0.0257		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.438		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cadmium	0.000145	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.00423		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000568	B	0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00300	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Selenium	0.00141	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Thallium	0.00214		0.00100	0.000260	mg/L	1		6020B	Total/NA
Total Suspended Solids	51.0		15.0	5.10	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 310-262782-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.14	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	1.10		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	0.492	J	1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	6.14		4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	4.38		1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	11.8		1.00	0.220	ug/L	1		8260D	Total/NA
Vinyl chloride	0.758	J	1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.0234		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	2.33		0.00800	0.00256	mg/L	4		6020B	Total/NA
Cobalt	0.0297		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000279	J B	0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.0393		0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	47.0		15.0	5.10	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-24 — Lab Sample ID: 310-262782-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.27	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	2.03		0.500	0.220	ug/L	1		8260D	Total/NA
Chloroethane	3.88	J	4.00	0.790	ug/L	1		8260D	Total/NA
Chloromethane	1.70	J	3.00	0.610	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.17		1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.63		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.705	J	1.00	0.270	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	0.342	J	1.00	0.270	ug/L	1		8260D	Total/NA
Vinyl chloride	1.14		1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.00660		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.508		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cobalt	0.00278		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000600	B	0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00313	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	106		15.0	5.10	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-32 — Lab Sample ID: 310-262782-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.07	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	1.23		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	0.645	J	1.00	0.400	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.441	J	1.00	0.210	ug/L	1		8260D	Total/NA
Ethylbenzene	0.563	J	1.00	0.310	ug/L	1		8260D	Total/NA
Arsenic	0.0103		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.153		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cobalt	0.0175		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000258	J B	0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00192	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	27.0		5.00	1.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-33 — Lab Sample ID: 310-262782-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.35	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	0.491	J	0.500	0.220	ug/L	1		8260D	Total/NA
Chloromethane	0.754	J	3.00	0.610	ug/L	1		8260D	Total/NA
Methylphenol, 3 & 4	3.46	J	10.0	0.700	ug/L	1		8270E	Total/NA
Arsenic	0.0175		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.140		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cobalt	0.0133		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000388	J B	0.000500	0.000240	mg/L	1		6020B	Total/NA
Nickel	0.00804		0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	13.3		5.00	1.70	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Quantitation Limit Exceptions Summary

Client: SCS Engineers
Job ID: 310-262782-1
Project/Site: CCASW ES 1st 2023 HMSP
SDG: 2301

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
8260D	1,2-Dibromo-3-Chloropropane	Ground Water	Total/NA	ug/L	1.20	5
8260D	1,2-Dibromoethane (EDB)	Ground Water	Total/NA	ug/L	0.340	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-19

Date Collected: 08/15/23 12:45
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-1

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**5.51**	**J**	10.0	3.10	ug/L			08/23/23 03:22	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/23/23 03:22	1
Benzene	<0.500		0.500	0.220	ug/L			08/23/23 03:22	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/23/23 03:22	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/23/23 03:22	1
Bromoform	<5.00		5.00	0.780	ug/L			08/23/23 03:22	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/23/23 03:22	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/23/23 03:22	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/23/23 03:22	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/23/23 03:22	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/23/23 03:22	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/23/23 03:22	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/23/23 03:22	1
Chloroform	<3.00		3.00	1.30	ug/L			08/23/23 03:22	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/23/23 03:22	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/23/23 03:22	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/23/23 03:22	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/23/23 03:22	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/23/23 03:22	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/23/23 03:22	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/23/23 03:22	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/23/23 03:22	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/23/23 03:22	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/23/23 03:22	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/23/23 03:22	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/23/23 03:22	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/23/23 03:22	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/23/23 03:22	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/23/23 03:22	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/23/23 03:22	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/23/23 03:22	1
Styrene	<1.00		1.00	0.370	ug/L			08/23/23 03:22	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/23/23 03:22	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/23/23 03:22	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/23/23 03:22	1
Toluene	<1.00		1.00	0.430	ug/L			08/23/23 03:22	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/23/23 03:22	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/23/23 03:22	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/23/23 03:22	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/23/23 03:22	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/23/23 03:22	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/23/23 03:22	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/23/23 03:22	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/23/23 03:22	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/23/23 03:22	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/23/23 03:22	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/23/23 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/23/23 03:22*	*1*

Client Sample ID: MW-19

Date Collected: 08/15/23 12:45
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-1

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*121*		*80 - 128*		*08/23/23 03:22*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*08/23/23 03:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/18/23 08:40	08/24/23 20:17	1
Arsenic	**0.000886**	**J**	0.00200	0.000530	mg/L		08/18/23 08:40	08/24/23 20:17	1
Barium	**0.166**		0.00200	0.000640	mg/L		08/18/23 08:40	08/24/23 20:17	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/18/23 08:40	08/24/23 20:17	1
Cadmium	**0.000279**		0.000200	0.000100	mg/L		08/18/23 08:40	08/24/23 20:17	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:17	1
Cobalt	**0.000557**		0.000500	0.000170	mg/L		08/18/23 08:40	08/24/23 20:17	1
Copper	**0.00188**	**J**	0.00500	0.00180	mg/L		08/18/23 08:40	08/24/23 20:17	1
Lead	**0.000986**	**B**	0.000500	0.000240	mg/L		08/18/23 08:40	08/24/23 20:17	1
Nickel	**0.00190**	**J**	0.00500	0.00190	mg/L		08/18/23 08:40	08/24/23 20:17	1
Selenium	**0.00260**	**J**	0.00500	0.00140	mg/L		08/18/23 08:40	08/24/23 20:17	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/18/23 08:40	08/24/23 20:17	1
Thallium	**0.00186**		0.00100	0.000260	mg/L		08/18/23 08:40	08/25/23 16:45	1
Vanadium	**0.00110**	**J**	0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:17	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/18/23 08:40	08/24/23 20:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**15.5**		1.88	0.638	mg/L			08/17/23 10:08	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-90-11

Date Collected: 08/15/23 16:50
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-2

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**5.75**	**J**	10.0	3.10	ug/L			08/23/23 03:45	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/23/23 03:45	1
Benzene	**0.341**	**J**	0.500	0.220	ug/L			08/23/23 03:45	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/23/23 03:45	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/23/23 03:45	1
Bromoform	<5.00		5.00	0.780	ug/L			08/23/23 03:45	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/23/23 03:45	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/23/23 03:45	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/23/23 03:45	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/23/23 03:45	1
Chlorobenzene	**6.11**		1.00	0.400	ug/L			08/23/23 03:45	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/23/23 03:45	1
Chloroethane	**1.29**	**J**	4.00	0.790	ug/L			08/23/23 03:45	1
Chloroform	<3.00		3.00	1.30	ug/L			08/23/23 03:45	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/23/23 03:45	1
cis-1,2-Dichloroethene	**1.80**		1.00	0.210	ug/L			08/23/23 03:45	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/23/23 03:45	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/23/23 03:45	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/23/23 03:45	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/23/23 03:45	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/23/23 03:45	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/23/23 03:45	1
1,1-Dichloroethane	**1.59**		1.00	0.220	ug/L			08/23/23 03:45	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/23/23 03:45	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/23/23 03:45	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/23/23 03:45	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/23/23 03:45	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/23/23 03:45	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/23/23 03:45	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/23/23 03:45	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/23/23 03:45	1
Styrene	<1.00		1.00	0.370	ug/L			08/23/23 03:45	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/23/23 03:45	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/23/23 03:45	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/23/23 03:45	1
Toluene	<1.00		1.00	0.430	ug/L			08/23/23 03:45	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/23/23 03:45	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/23/23 03:45	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/23/23 03:45	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/23/23 03:45	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/23/23 03:45	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/23/23 03:45	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/23/23 03:45	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/23/23 03:45	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/23/23 03:45	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/23/23 03:45	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/23/23 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/23/23 03:45*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-90-11

Date Collected: 08/15/23 16:50
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-2

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*124*		*80 - 128*		*08/23/23 03:45*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*08/23/23 03:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/18/23 08:40	08/24/23 20:29	1
Arsenic	**0.0257**		0.00200	0.000530	mg/L		08/18/23 08:40	08/24/23 20:29	1
Barium	**0.438**		0.00200	0.000640	mg/L		08/18/23 08:40	08/24/23 20:29	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/18/23 08:40	08/24/23 20:29	1
Cadmium	**0.000145**	**J**	0.000200	0.000100	mg/L		08/18/23 08:40	08/24/23 20:29	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:29	1
Cobalt	**0.00423**		0.000500	0.000170	mg/L		08/18/23 08:40	08/24/23 20:29	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/18/23 08:40	08/24/23 20:29	1
Lead	**0.000568**	**B**	0.000500	0.000240	mg/L		08/18/23 08:40	08/24/23 20:29	1
Nickel	**0.00300**	**J**	0.00500	0.00190	mg/L		08/18/23 08:40	08/24/23 20:29	1
Selenium	**0.00141**	**J**	0.00500	0.00140	mg/L		08/18/23 08:40	08/24/23 20:29	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/18/23 08:40	08/24/23 20:29	1
Thallium	**0.00214**		0.00100	0.000260	mg/L		08/18/23 08:40	08/25/23 16:52	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:29	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/18/23 08:40	08/24/23 20:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**51.0**		15.0	5.10	mg/L			08/17/23 10:08	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-20

Date Collected: 08/15/23 11:20
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-3

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**4.14**	**J**	10.0	3.10	ug/L			08/23/23 04:08	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/23/23 04:08	1
Benzene	**1.10**		0.500	0.220	ug/L			08/23/23 04:08	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/23/23 04:08	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/23/23 04:08	1
Bromoform	<5.00		5.00	0.780	ug/L			08/23/23 04:08	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/23/23 04:08	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/23/23 04:08	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/23/23 04:08	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/23/23 04:08	1
Chlorobenzene	**0.492**	**J**	1.00	0.400	ug/L			08/23/23 04:08	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/23/23 04:08	1
Chloroethane	**6.14**		4.00	0.790	ug/L			08/23/23 04:08	1
Chloroform	<3.00		3.00	1.30	ug/L			08/23/23 04:08	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/23/23 04:08	1
cis-1,2-Dichloroethene	**4.38**		1.00	0.210	ug/L			08/23/23 04:08	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/23/23 04:08	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/23/23 04:08	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/23/23 04:08	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/23/23 04:08	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/23/23 04:08	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/23/23 04:08	1
1,1-Dichloroethane	**11.8**		1.00	0.220	ug/L			08/23/23 04:08	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/23/23 04:08	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/23/23 04:08	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/23/23 04:08	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/23/23 04:08	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/23/23 04:08	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/23/23 04:08	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/23/23 04:08	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/23/23 04:08	1
Styrene	<1.00		1.00	0.370	ug/L			08/23/23 04:08	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/23/23 04:08	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/23/23 04:08	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/23/23 04:08	1
Toluene	<1.00		1.00	0.430	ug/L			08/23/23 04:08	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/23/23 04:08	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/23/23 04:08	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/23/23 04:08	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/23/23 04:08	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/23/23 04:08	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/23/23 04:08	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/23/23 04:08	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/23/23 04:08	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/23/23 04:08	1
Vinyl chloride	**0.758**	**J**	1.00	0.180	ug/L			08/23/23 04:08	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/23/23 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/23/23 04:08*	*1*

Client Sample ID: MW-20

Date Collected: 08/15/23 11:20
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-3

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*124*		*80 - 128*		*08/23/23 04:08*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*08/23/23 04:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/18/23 08:40	08/24/23 20:31	1
Arsenic	**0.0234**		0.00200	0.000530	mg/L		08/18/23 08:40	08/24/23 20:31	1
Barium	**2.33**		0.00800	0.00256	mg/L		08/18/23 08:40	08/25/23 16:54	4
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/18/23 08:40	08/24/23 20:31	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/18/23 08:40	08/24/23 20:31	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:31	1
Cobalt	**0.0297**		0.000500	0.000170	mg/L		08/18/23 08:40	08/24/23 20:31	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/18/23 08:40	08/24/23 20:31	1
Lead	**0.000279**	**J B**	0.000500	0.000240	mg/L		08/18/23 08:40	08/24/23 20:31	1
Nickel	**0.0393**		0.00500	0.00190	mg/L		08/18/23 08:40	08/24/23 20:31	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/18/23 08:40	08/24/23 20:31	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/18/23 08:40	08/24/23 20:31	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/18/23 08:40	08/24/23 20:31	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:31	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/18/23 08:40	08/24/23 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**47.0**		15.0	5.10	mg/L			08/17/23 10:08	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-24

Date Collected: 08/15/23 09:46
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-4

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**6.27**	**J**	10.0	3.10	ug/L			08/23/23 04:31	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/23/23 04:31	1
Benzene	**2.03**		0.500	0.220	ug/L			08/23/23 04:31	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/23/23 04:31	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/23/23 04:31	1
Bromoform	<5.00		5.00	0.780	ug/L			08/23/23 04:31	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/23/23 04:31	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/23/23 04:31	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/23/23 04:31	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/23/23 04:31	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/23/23 04:31	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/23/23 04:31	1
Chloroethane	**3.88**	**J**	4.00	0.790	ug/L			08/23/23 04:31	1
Chloroform	<3.00		3.00	1.30	ug/L			08/23/23 04:31	1
Chloromethane	**1.70**	**J**	3.00	0.610	ug/L			08/23/23 04:31	1
cis-1,2-Dichloroethene	**1.17**		1.00	0.210	ug/L			08/23/23 04:31	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/23/23 04:31	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/23/23 04:31	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/23/23 04:31	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/23/23 04:31	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/23/23 04:31	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/23/23 04:31	1
1,1-Dichloroethane	**1.63**		1.00	0.220	ug/L			08/23/23 04:31	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/23/23 04:31	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/23/23 04:31	1
1,2-Dichloropropane	**0.705**	**J**	1.00	0.270	ug/L			08/23/23 04:31	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/23/23 04:31	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/23/23 04:31	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/23/23 04:31	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/23/23 04:31	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/23/23 04:31	1
Styrene	<1.00		1.00	0.370	ug/L			08/23/23 04:31	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/23/23 04:31	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/23/23 04:31	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/23/23 04:31	1
Toluene	<1.00		1.00	0.430	ug/L			08/23/23 04:31	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/23/23 04:31	1
trans-1,2-Dichloroethene	**0.342**	**J**	1.00	0.270	ug/L			08/23/23 04:31	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/23/23 04:31	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/23/23 04:31	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/23/23 04:31	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/23/23 04:31	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/23/23 04:31	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/23/23 04:31	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/23/23 04:31	1
Vinyl chloride	**1.14**		1.00	0.180	ug/L			08/23/23 04:31	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/23/23 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/23 04:31*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-24

Date Collected: 08/15/23 09:46
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-4

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*127*		*80 - 128*		*08/23/23 04:31*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*08/23/23 04:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/18/23 08:40	08/24/23 20:34	1
Arsenic	**0.00660**		0.00200	0.000530	mg/L		08/18/23 08:40	08/24/23 20:34	1
Barium	**0.508**		0.00200	0.000640	mg/L		08/18/23 08:40	08/24/23 20:34	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/18/23 08:40	08/24/23 20:34	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/18/23 08:40	08/24/23 20:34	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:34	1
Cobalt	**0.00278**		0.000500	0.000170	mg/L		08/18/23 08:40	08/24/23 20:34	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/18/23 08:40	08/24/23 20:34	1
Lead	**0.000600**	**B**	0.000500	0.000240	mg/L		08/18/23 08:40	08/24/23 20:34	1
Nickel	**0.00313**	**J**	0.00500	0.00190	mg/L		08/18/23 08:40	08/24/23 20:34	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/18/23 08:40	08/24/23 20:34	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/18/23 08:40	08/24/23 20:34	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/18/23 08:40	08/24/23 20:34	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:34	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/18/23 08:40	08/24/23 20:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**106**		15.0	5.10	mg/L			08/17/23 10:08	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-32

Date Collected: 08/15/23 19:05
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-5

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**5.07**	**J**	10.0	3.10	ug/L			08/23/23 04:53	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/23/23 04:53	1
Benzene	**1.23**		0.500	0.220	ug/L			08/23/23 04:53	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/23/23 04:53	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/23/23 04:53	1
Bromoform	<5.00		5.00	0.780	ug/L			08/23/23 04:53	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/23/23 04:53	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/23/23 04:53	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/23/23 04:53	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/23/23 04:53	1
Chlorobenzene	**0.645**	**J**	1.00	0.400	ug/L			08/23/23 04:53	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/23/23 04:53	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/23/23 04:53	1
Chloroform	<3.00		3.00	1.30	ug/L			08/23/23 04:53	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/23/23 04:53	1
cis-1,2-Dichloroethene	**0.441**	**J**	1.00	0.210	ug/L			08/23/23 04:53	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/23/23 04:53	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/23/23 04:53	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/23/23 04:53	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/23/23 04:53	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/23/23 04:53	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/23/23 04:53	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/23/23 04:53	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/23/23 04:53	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/23/23 04:53	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/23/23 04:53	1
Ethylbenzene	**0.563**	**J**	1.00	0.310	ug/L			08/23/23 04:53	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/23/23 04:53	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/23/23 04:53	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/23/23 04:53	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/23/23 04:53	1
Styrene	<1.00		1.00	0.370	ug/L			08/23/23 04:53	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/23/23 04:53	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/23/23 04:53	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/23/23 04:53	1
Toluene	<1.00		1.00	0.430	ug/L			08/23/23 04:53	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/23/23 04:53	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/23/23 04:53	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/23/23 04:53	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/23/23 04:53	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/23/23 04:53	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/23/23 04:53	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/23/23 04:53	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/23/23 04:53	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/23/23 04:53	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/23/23 04:53	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/23/23 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/23 04:53*	*1*

Client Sample ID: MW-32

Date Collected: 08/15/23 19:05
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-5

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*125*		*80 - 128*		*08/23/23 04:53*	*1*
Toluene-d8 (Surr)	*93*		*80 - 120*		*08/23/23 04:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/18/23 08:40	08/24/23 20:48	1
Arsenic	**0.0103**		0.00200	0.000530	mg/L		08/18/23 08:40	08/24/23 20:48	1
Barium	**0.153**		0.00200	0.000640	mg/L		08/18/23 08:40	08/24/23 20:48	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/18/23 08:40	08/24/23 20:48	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/18/23 08:40	08/24/23 20:48	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:48	1
Cobalt	**0.0175**		0.000500	0.000170	mg/L		08/18/23 08:40	08/24/23 20:48	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/18/23 08:40	08/24/23 20:48	1
Lead	**0.000258**	**J B**	0.000500	0.000240	mg/L		08/18/23 08:40	08/24/23 20:48	1
Nickel	**0.00192**	**J**	0.00500	0.00190	mg/L		08/18/23 08:40	08/24/23 20:48	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/18/23 08:40	08/24/23 20:48	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/18/23 08:40	08/24/23 20:48	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/18/23 08:40	08/24/23 20:48	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:48	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/18/23 08:40	08/24/23 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**27.0**		5.00	1.70	mg/L			08/17/23 10:08	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-33

Date Collected: 08/15/23 18:25
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-6

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**7.35**	**J**	10.0	3.10	ug/L			08/23/23 05:16	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/23/23 05:16	1
Benzene	**0.491**	**J**	0.500	0.220	ug/L			08/23/23 05:16	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/23/23 05:16	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/23/23 05:16	1
Bromoform	<5.00		5.00	0.780	ug/L			08/23/23 05:16	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/23/23 05:16	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/23/23 05:16	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/23/23 05:16	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/23/23 05:16	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/23/23 05:16	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/23/23 05:16	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/23/23 05:16	1
Chloroform	<3.00		3.00	1.30	ug/L			08/23/23 05:16	1
Chloromethane	**0.754**	**J**	3.00	0.610	ug/L			08/23/23 05:16	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/23/23 05:16	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/23/23 05:16	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/23/23 05:16	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/23/23 05:16	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/23/23 05:16	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/23/23 05:16	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/23/23 05:16	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/23/23 05:16	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/23/23 05:16	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/23/23 05:16	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/23/23 05:16	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/23/23 05:16	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/23/23 05:16	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/23/23 05:16	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/23/23 05:16	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/23/23 05:16	1
Styrene	<1.00		1.00	0.370	ug/L			08/23/23 05:16	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/23/23 05:16	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/23/23 05:16	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/23/23 05:16	1
Toluene	<1.00		1.00	0.430	ug/L			08/23/23 05:16	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/23/23 05:16	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/23/23 05:16	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/23/23 05:16	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/23/23 05:16	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/23/23 05:16	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/23/23 05:16	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/23/23 05:16	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/23/23 05:16	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/23/23 05:16	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/23/23 05:16	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/23/23 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/23 05:16*	*1*

Client Sample ID: MW-33

Date Collected: 08/15/23 18:25
Date Received: 08/17/23 08:35

Lab Sample ID: 310-262782-6

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*121*		*80 - 128*		*08/23/23 05:16*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*08/23/23 05:16*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylphenol, 3 & 4	**3.46**	**J**	10.0	0.700	ug/L		08/18/23 05:59	08/25/23 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*80*		*25 - 110*	*08/18/23 05:59*	*08/25/23 22:09*	*1*
Phenol-d5 (Surr)	*65*		*21 - 110*	*08/18/23 05:59*	*08/25/23 22:09*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*27 - 136*	*08/18/23 05:59*	*08/25/23 22:09*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.981		0.981	0.301	ug/L		08/21/23 08:50	08/24/23 10:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*94*		*25 - 130*	*08/21/23 08:50*	*08/24/23 10:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/18/23 08:40	08/24/23 20:50	1
Arsenic	**0.0175**		0.00200	0.000530	mg/L		08/18/23 08:40	08/24/23 20:50	1
Barium	**0.140**		0.00200	0.000640	mg/L		08/18/23 08:40	08/24/23 20:50	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/18/23 08:40	08/24/23 20:50	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/18/23 08:40	08/24/23 20:50	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:50	1
Cobalt	**0.0133**		0.000500	0.000170	mg/L		08/18/23 08:40	08/24/23 20:50	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/18/23 08:40	08/24/23 20:50	1
Lead	**0.000388**	**J B**	0.000500	0.000240	mg/L		08/18/23 08:40	08/24/23 20:50	1
Nickel	**0.00804**		0.00500	0.00190	mg/L		08/18/23 08:40	08/24/23 20:50	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/18/23 08:40	08/24/23 20:50	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/18/23 08:40	08/24/23 20:50	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/18/23 08:40	08/24/23 20:50	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:50	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/18/23 08:40	08/24/23 20:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**13.3**		5.00	1.70	mg/L			08/17/23 10:08	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

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

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
310-262782-1	MW-19	100	121	94
310-262782-2	MW-90-11	100	124	93
310-262782-3	MW-20	99	124	93
310-262782-4	MW-24	98	127	92
310-262782-5	MW-32	98	125	93
310-262782-6	MW-33	98	121	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
LCS 310-397418/6	Lab Control Sample	100	105	97
LCS 310-397418/7	Lab Control Sample	98	129 S1+	93
MB 310-397418/5	Method Blank	100	120	93

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2FP	PHL	TBP
Lab Sample ID	Client Sample ID	(25-110)	(21-110)	(27-136)
310-262782-6	MW-33	80	65	109

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		2FP	PHL	TBP
Lab Sample ID	Client Sample ID	(25-110)	(21-110)	(27-136)
LCS 310-397025/2-A	Lab Control Sample	83	69	113
LCSD 310-397025/3-A	Lab Control Sample Dup	87	73	122
MB 310-397025/1-A	Method Blank	86	70	95

Surrogate Legend

2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

TBP = 2,4,6-Tribromophenol (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCPAA1 (25-130)							
310-262782-6	MW-33	94							

Surrogate Legend

DCPAA = DCAA

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCPAA1 (25-130)							
LCS 500-728652/2-A	Lab Control Sample	85							
LCSD 500-728652/3-A	Lab Control Sample Dup	85							
MB 500-728652/1-A	Method Blank	78							

Surrogate Legend

DCPAA = DCAA

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

Lab Sample ID: MB 310-397418/5
Matrix: Water
Analysis Batch: 397418

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/22/23 23:57	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/22/23 23:57	1
Benzene	<0.500		0.500	0.220	ug/L			08/22/23 23:57	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/22/23 23:57	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/22/23 23:57	1
Bromoform	<5.00		5.00	0.780	ug/L			08/22/23 23:57	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/22/23 23:57	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/22/23 23:57	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/22/23 23:57	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/22/23 23:57	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/22/23 23:57	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/22/23 23:57	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/22/23 23:57	1
Chloroform	<3.00		3.00	1.30	ug/L			08/22/23 23:57	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/22/23 23:57	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/22/23 23:57	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/22/23 23:57	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/22/23 23:57	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/22/23 23:57	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/22/23 23:57	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/22/23 23:57	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/22/23 23:57	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/22/23 23:57	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/22/23 23:57	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/22/23 23:57	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/22/23 23:57	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/22/23 23:57	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/22/23 23:57	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/22/23 23:57	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/22/23 23:57	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/22/23 23:57	1
Styrene	<1.00		1.00	0.370	ug/L			08/22/23 23:57	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/22/23 23:57	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/22/23 23:57	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/22/23 23:57	1
Toluene	<1.00		1.00	0.430	ug/L			08/22/23 23:57	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/22/23 23:57	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/22/23 23:57	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/22/23 23:57	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/22/23 23:57	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/22/23 23:57	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/22/23 23:57	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/22/23 23:57	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/22/23 23:57	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/22/23 23:57	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/22/23 23:57	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/22/23 23:57	1

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

Lab Sample ID: MB 310-397418/5
Matrix: Water
Analysis Batch: 397418

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		08/22/23 23:57	1
Dibromofluoromethane (Surr)	120		80 - 128		08/22/23 23:57	1
Toluene-d8 (Surr)	93		80 - 120		08/22/23 23:57	1

Lab Sample ID: LCS 310-397418/6
Matrix: Water
Analysis Batch: 397418

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	40.0	42.68		ug/L		107	50 - 150
Acrylonitrile	200	222.7		ug/L		111	50 - 150
Benzene	20.0	20.41		ug/L		102	73 - 122
Bromochloromethane	20.0	21.31		ug/L		107	68 - 132
Bromodichloromethane	20.0	19.81		ug/L		99	72 - 121
Bromoform	20.0	17.24		ug/L		86	55 - 129
2-Butanone (MEK)	40.0	36.75		ug/L		92	50 - 150
Carbon disulfide	20.0	21.00		ug/L		105	58 - 131
Carbon tetrachloride	20.0	20.37		ug/L		102	67 - 132
Chlorobenzene	20.0	18.34		ug/L		92	69 - 121
Chlorodibromomethane	20.0	17.15		ug/L		86	69 - 122
Chloroform	20.0	20.40		ug/L		102	72 - 120
cis-1,2-Dichloroethene	20.0	21.08		ug/L		105	74 - 120
cis-1,3-Dichloropropene	20.0	15.58		ug/L		78	71 - 126
1,2-Dibromo-3-Chloropropane	20.0	18.33		ug/L		92	50 - 150
1,2-Dibromoethane (EDB)	20.0	18.14		ug/L		91	73 - 125
Dibromomethane	20.0	20.85		ug/L		104	72 - 123
1,2-Dichlorobenzene	20.0	17.89		ug/L		89	68 - 120
1,4-Dichlorobenzene	20.0	17.61		ug/L		88	67 - 120
1,1-Dichloroethane	20.0	21.76		ug/L		109	71 - 123
1,2-Dichloroethane	20.0	21.10		ug/L		105	70 - 124
1,1-Dichloroethene	20.0	21.40		ug/L		107	61 - 129
1,2-Dichloropropane	20.0	20.81		ug/L		104	73 - 121
Ethylbenzene	20.0	19.27		ug/L		96	69 - 122
2-Hexanone	40.0	37.57		ug/L		94	60 - 132
Iodomethane	20.0	18.34		ug/L		92	10 - 150
Methylene Chloride	20.0	22.33		ug/L		112	50 - 150
4-Methyl-2-pentanone (MIBK)	40.0	39.10		ug/L		98	62 - 130
Styrene	20.0	19.32		ug/L		97	67 - 125
1,1,1,2-Tetrachloroethane	20.0	17.13		ug/L		86	68 - 123
1,1,2,2-Tetrachloroethane	20.0	18.69		ug/L		93	64 - 124
Tetrachloroethene	20.0	18.51		ug/L		93	69 - 131
Toluene	20.0	18.94		ug/L		95	72 - 121
trans-1,4-Dichloro-2-butene	20.0	17.18		ug/L		86	48 - 150
trans-1,2-Dichloroethene	20.0	20.69		ug/L		103	68 - 125
trans-1,3-Dichloropropene	20.0	18.48		ug/L		92	68 - 124
1,1,1-Trichloroethane	20.0	21.31		ug/L		107	71 - 128
1,1,2-Trichloroethane	20.0	17.59		ug/L		88	70 - 124
Trichloroethene	20.0	19.19		ug/L		96	73 - 126

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

Lab Sample ID: LCS 310-397418/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	20.0	18.69		ug/L		93	64 - 125
Vinyl acetate	40.0	32.98		ug/L		82	50 - 150
Xylenes, Total	40.0	38.10		ug/L		95	68 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 128*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: LCS 310-397418/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	18.16		ug/L		91	24 - 150
Chloroethane	20.0	19.63		ug/L		98	51 - 137
Chloromethane	20.0	20.53		ug/L		103	37 - 150
Trichlorofluoromethane	20.0	20.78		ug/L		104	56 - 144
Vinyl chloride	20.0	21.14		ug/L		106	57 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*129*	*S1+*	*80 - 128*
Toluene-d8 (Surr)	*93*		*80 - 120*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 310-397025/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397798 — **Prep Batch: 397025**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylphenol, 3 & 4	<10.0		10.0	0.700	ug/L		08/18/23 05:59	08/25/23 13:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*86*		*25 - 110*	*08/18/23 05:59*	*08/25/23 13:13*	*1*
Phenol-d5 (Surr)	*70*		*21 - 110*	*08/18/23 05:59*	*08/25/23 13:13*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*27 - 136*	*08/18/23 05:59*	*08/25/23 13:13*	*1*

Lab Sample ID: LCS 310-397025/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397798 — **Prep Batch: 397025**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylphenol, 3 & 4	100	91.62		ug/L		92	46 - 117

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*83*		*25 - 110*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-397025/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397798 — **Prep Batch: 397025**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d5 (Surr)	69		21 - 110
2,4,6-Tribromophenol (Surr)	113		27 - 136

Lab Sample ID: LCSD 310-397025/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397798 — **Prep Batch: 397025**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methylphenol, 3 & 4			100	89.15		ug/L		89	46 - 117	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorophenol (Surr)	87		25 - 110
Phenol-d5 (Surr)	73		21 - 110
2,4,6-Tribromophenol (Surr)	122		27 - 136

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-728652/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729215 — **Prep Batch: 728652**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<1.00		1.00	0.307	ug/L		08/21/23 08:50	08/24/23 08:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	78		25 - 130	08/21/23 08:50	08/24/23 08:48	1

Lab Sample ID: LCS 500-728652/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729215 — **Prep Batch: 728652**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4-D			10.1	7.603		ug/L		76	30 - 115		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCAA	85		25 - 130

Lab Sample ID: LCSD 500-728652/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 729215 — **Prep Batch: 728652**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D			10.1	7.699		ug/L		77	30 - 115	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCAA	85		25 - 130

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-397005/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397703 — **Prep Batch: 397005**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/18/23 08:40	08/24/23 20:13	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/18/23 08:40	08/24/23 20:13	1
Barium	<0.00200		0.00200	0.000640	mg/L		08/18/23 08:40	08/24/23 20:13	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/18/23 08:40	08/24/23 20:13	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/18/23 08:40	08/24/23 20:13	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:13	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/18/23 08:40	08/24/23 20:13	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/18/23 08:40	08/24/23 20:13	1
Lead	0.0002870	J	0.000500	0.000240	mg/L		08/18/23 08:40	08/24/23 20:13	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/18/23 08:40	08/24/23 20:13	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/18/23 08:40	08/24/23 20:13	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/18/23 08:40	08/24/23 20:13	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/18/23 08:40	08/24/23 20:13	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/18/23 08:40	08/24/23 20:13	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/18/23 08:40	08/24/23 20:13	1

Lab Sample ID: LCS 310-397005/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397703 — **Prep Batch: 397005**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2117		mg/L		106	80 - 120
Arsenic	0.200	0.2045		mg/L		102	80 - 120
Barium	0.100	0.1010		mg/L		101	80 - 120
Beryllium	0.100	0.09855		mg/L		99	80 - 120
Cadmium	0.100	0.1006		mg/L		101	80 - 120
Chromium	0.100	0.09958		mg/L		100	80 - 120
Cobalt	0.100	0.09659		mg/L		97	80 - 120
Copper	0.200	0.2090		mg/L		105	80 - 120
Lead	0.200	0.1980		mg/L		99	80 - 120
Nickel	0.200	0.2058		mg/L		103	80 - 120
Selenium	0.400	0.4009		mg/L		100	80 - 120
Silver	0.100	0.09607		mg/L		96	80 - 120
Vanadium	0.100	0.09981		mg/L		100	80 - 120
Zinc	0.200	0.1943		mg/L		97	80 - 120

Lab Sample ID: LCS 310-397005/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397836 — **Prep Batch: 397005**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.200	0.1621		mg/L		81	80 - 120

Lab Sample ID: 310-262782-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 397703 — **Prep Batch: 397005**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2109		mg/L		105	75 - 125

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

Lab Sample ID: 310-262782-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 397703 — **Prep Batch: 397005**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.000886	J	0.200	0.2053		mg/L		102	75 - 125
Barium	0.166		0.100	0.2670		mg/L		101	75 - 125
Beryllium	<0.00100		0.100	0.1010		mg/L		101	75 - 125
Cadmium	0.000279		0.100	0.1028		mg/L		103	75 - 125
Chromium	<0.00500		0.100	0.09859		mg/L		99	75 - 125
Cobalt	0.000557		0.100	0.09333		mg/L		93	75 - 125
Copper	0.00188	J	0.200	0.2008		mg/L		99	75 - 125
Lead	0.000986	B	0.200	0.1939		mg/L		96	75 - 125
Nickel	0.00190	J	0.200	0.1980		mg/L		98	75 - 125
Selenium	0.00260	J	0.400	0.3984		mg/L		99	75 - 125
Silver	<0.00100		0.100	0.09168		mg/L		92	75 - 125
Thallium	0.00140	*- F1	0.200	0.1487	F1	mg/L		74	75 - 125
Vanadium	0.00110	J	0.100	0.1017		mg/L		102	75 - 125
Zinc	<0.0200		0.200	0.1972		mg/L		99	75 - 125

Lab Sample ID: 310-262782-1 MS — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 397836 — **Prep Batch: 397005**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.00186		0.200	0.1615		mg/L		80	75 - 125

Lab Sample ID: 310-262782-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 397703 — **Prep Batch: 397005**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2102		mg/L		105	75 - 125	0	20
Arsenic	0.000886	J	0.200	0.2048		mg/L		102	75 - 125	0	20
Barium	0.166		0.100	0.2688		mg/L		103	75 - 125	1	20
Beryllium	<0.00100		0.100	0.1020		mg/L		102	75 - 125	1	20
Cadmium	0.000279		0.100	0.1013		mg/L		101	75 - 125	1	20
Chromium	<0.00500		0.100	0.09866		mg/L		99	75 - 125	0	20
Cobalt	0.000557		0.100	0.09378		mg/L		93	75 - 125	0	20
Copper	0.00188	J	0.200	0.2012		mg/L		100	75 - 125	0	20
Lead	0.000986	B	0.200	0.1912		mg/L		95	75 - 125	1	20
Nickel	0.00190	J	0.200	0.1978		mg/L		98	75 - 125	0	20
Selenium	0.00260	J	0.400	0.3941		mg/L		98	75 - 125	1	20
Silver	<0.00100		0.100	0.09239		mg/L		92	75 - 125	1	20
Thallium	0.00140	*- F1	0.200	0.1525		mg/L		76	75 - 125	3	20
Vanadium	0.00110	J	0.100	0.1015		mg/L		102	75 - 125	0	20
Zinc	<0.0200		0.200	0.1958		mg/L		98	75 - 125	1	20

Lab Sample ID: 310-262782-1 MSD — **Client Sample ID: MW-19**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 397836 — **Prep Batch: 397005**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	0.00186		0.200	0.1723		mg/L		85	75 - 125	6	20

QC Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

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

Lab Sample ID: MB 310-396930/1
Matrix: Water
Analysis Batch: 396930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	1.70	mg/L			08/17/23 10:08	1

Lab Sample ID: LCS 310-396930/2
Matrix: Water
Analysis Batch: 396930

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	102.0		mg/L		102	75 - 116		

Lab Sample ID: 310-262782-2 DU
Matrix: Ground Water
Analysis Batch: 396930

Client Sample ID: MW-90-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	51.0			51.00		mg/L				0	35

QC Association Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

GC/MS VOA

Analysis Batch: 397418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-1	MW-19	Total/NA	Ground Water	8260D	
310-262782-2	MW-90-11	Total/NA	Ground Water	8260D	
310-262782-3	MW-20	Total/NA	Ground Water	8260D	
310-262782-4	MW-24	Total/NA	Ground Water	8260D	
310-262782-5	MW-32	Total/NA	Ground Water	8260D	
310-262782-6	MW-33	Total/NA	Ground Water	8260D	
MB 310-397418/5	Method Blank	Total/NA	Water	8260D	
LCS 310-397418/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-397418/7	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 397025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-6	MW-33	Total/NA	Ground Water	3510C	
MB 310-397025/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-397025/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-397025/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 397798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-6	MW-33	Total/NA	Ground Water	8270E	397025
MB 310-397025/1-A	Method Blank	Total/NA	Water	8270E	397025
LCS 310-397025/2-A	Lab Control Sample	Total/NA	Water	8270E	397025
LCSD 310-397025/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	397025

GC Semi VOA

Prep Batch: 728652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-6	MW-33	Total/NA	Ground Water	8151A	
MB 500-728652/1-A	Method Blank	Total/NA	Water	8151A	
LCS 500-728652/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 500-728652/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 729215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-6	MW-33	Total/NA	Ground Water	8151A	728652
MB 500-728652/1-A	Method Blank	Total/NA	Water	8151A	728652
LCS 500-728652/2-A	Lab Control Sample	Total/NA	Water	8151A	728652
LCSD 500-728652/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	728652

Metals

Prep Batch: 397005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-1	MW-19	Total/NA	Ground Water	3005A	
310-262782-2	MW-90-11	Total/NA	Ground Water	3005A	
310-262782-3	MW-20	Total/NA	Ground Water	3005A	
310-262782-4	MW-24	Total/NA	Ground Water	3005A	
310-262782-5	MW-32	Total/NA	Ground Water	3005A	
310-262782-6	MW-33	Total/NA	Ground Water	3005A	

Metals (Continued)

Prep Batch: 397005 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-397005/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-397005/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-262782-1 MS	MW-19	Total/NA	Ground Water	3005A	
310-262782-1 MSD	MW-19	Total/NA	Ground Water	3005A	

Analysis Batch: 397703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-1	MW-19	Total/NA	Ground Water	6020B	397005
310-262782-2	MW-90-11	Total/NA	Ground Water	6020B	397005
310-262782-3	MW-20	Total/NA	Ground Water	6020B	397005
310-262782-4	MW-24	Total/NA	Ground Water	6020B	397005
310-262782-5	MW-32	Total/NA	Ground Water	6020B	397005
310-262782-6	MW-33	Total/NA	Ground Water	6020B	397005
MB 310-397005/1-A	Method Blank	Total/NA	Water	6020B	397005
LCS 310-397005/2-A	Lab Control Sample	Total/NA	Water	6020B	397005
310-262782-1 MS	MW-19	Total/NA	Ground Water	6020B	397005
310-262782-1 MSD	MW-19	Total/NA	Ground Water	6020B	397005

Analysis Batch: 397836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-1	MW-19	Total/NA	Ground Water	6020B	397005
310-262782-2	MW-90-11	Total/NA	Ground Water	6020B	397005
310-262782-3	MW-20	Total/NA	Ground Water	6020B	397005
LCS 310-397005/2-A	Lab Control Sample	Total/NA	Water	6020B	397005
310-262782-1 MS	MW-19	Total/NA	Ground Water	6020B	397005
310-262782-1 MSD	MW-19	Total/NA	Ground Water	6020B	397005

General Chemistry

Analysis Batch: 396930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-262782-1	MW-19	Total/NA	Ground Water	I-3765-85	
310-262782-2	MW-90-11	Total/NA	Ground Water	I-3765-85	
310-262782-3	MW-20	Total/NA	Ground Water	I-3765-85	
310-262782-4	MW-24	Total/NA	Ground Water	I-3765-85	
310-262782-5	MW-32	Total/NA	Ground Water	I-3765-85	
310-262782-6	MW-33	Total/NA	Ground Water	I-3765-85	
MB 310-396930/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-396930/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-262782-2 DU	MW-90-11	Total/NA	Ground Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-19

Lab Sample ID: 310-262782-1

Date Collected: 08/15/23 12:45
Matrix: Ground Water
Date Received: 08/17/23 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397418	FE5V	EET CF	08/23/23 03:22
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397703	A6US	EET CF	08/24/23 20:17
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397836	DHM5	EET CF	08/25/23 16:45
Total/NA	Analysis	I-3765-85		1	396930	DGU1	EET CF	08/17/23 10:08

Client Sample ID: MW-90-11

Lab Sample ID: 310-262782-2

Date Collected: 08/15/23 16:50
Matrix: Ground Water
Date Received: 08/17/23 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397418	FE5V	EET CF	08/23/23 03:45
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397703	A6US	EET CF	08/24/23 20:29
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397836	DHM5	EET CF	08/25/23 16:52
Total/NA	Analysis	I-3765-85		1	396930	DGU1	EET CF	08/17/23 10:08

Client Sample ID: MW-20

Lab Sample ID: 310-262782-3

Date Collected: 08/15/23 11:20
Matrix: Ground Water
Date Received: 08/17/23 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397418	FE5V	EET CF	08/23/23 04:08
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397703	A6US	EET CF	08/24/23 20:31
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		4	397836	DHM5	EET CF	08/25/23 16:54
Total/NA	Analysis	I-3765-85		1	396930	DGU1	EET CF	08/17/23 10:08

Client Sample ID: MW-24

Lab Sample ID: 310-262782-4

Date Collected: 08/15/23 09:46
Matrix: Ground Water
Date Received: 08/17/23 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397418	FE5V	EET CF	08/23/23 04:31
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397703	A6US	EET CF	08/24/23 20:34
Total/NA	Analysis	I-3765-85		1	396930	DGU1	EET CF	08/17/23 10:08

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Client Sample ID: MW-32

Lab Sample ID: 310-262782-5

Date Collected: 08/15/23 19:05
Date Received: 08/17/23 08:35

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397418	FE5V	EET CF	08/23/23 04:53
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397703	A6US	EET CF	08/24/23 20:48
Total/NA	Analysis	I-3765-85		1	396930	DGU1	EET CF	08/17/23 10:08

Client Sample ID: MW-33

Lab Sample ID: 310-262782-6

Date Collected: 08/15/23 18:25
Date Received: 08/17/23 08:35

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397418	FE5V	EET CF	08/23/23 05:16
Total/NA	Prep	3510C			397025	Y6AF	EET CF	08/18/23 05:59
Total/NA	Analysis	8270E		1	397798	L0FS	EET CF	08/25/23 22:09
Total/NA	Prep	8151A			728652	DAK	EET CHI	08/21/23 08:50
Total/NA	Analysis	8151A		1	729215	SB	EET CHI	08/24/23 10:51
Total/NA	Prep	3005A			397005	QTZ5	EET CF	08/18/23 08:40
Total/NA	Analysis	6020B		1	397703	A6US	EET CF	08/24/23 20:50
Total/NA	Analysis	I-3765-85		1	396930	DGU1	EET CF	08/17/23 10:08

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	082	05-01-24

Method Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-262782-1
SDG: 2301

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET CF
8151A	Herbicides (GC)	SW846	EET CHI
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
8151A	Extraction (Herbicides)	SW846	EET CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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310-262782 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 8-17-23 | TIME 835 | Received By: MC

Delivery Type: ☑ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☑ No *If yes:* Cooler # _____ of _____

Cooler Custody Seals Present? ☑ Yes ☐ No *If yes:* Cooler custody seals intact? ☑ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue Ice ☐ Dry Ice ☐ Other:_____ ☐ NONE

Thermometer ID: R | Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.1 | Corrected Temp (°C): -0.1

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica

704 Enterprise Drive
Cedar Falls Iowa 50613

319 277 2401 (phone)
515 792 7989 (fax)

SAMPLER: SCS Engineers
SITE NAME: Clinton County Sanitary Landfill (East-South)
ADDRESS:
CITY/STATE/ZIP:
TELEPHONE NUMBER: 515 205-5977 Fax:
SAMPLED BY: (PRINT NAME) Caleb Gomez
SIGNATURE: Caleb Gomez

REPORT TO:
NAME: Nathan Ohrt (nohrt@scsengineers.com
COMPANY NAME: SCS Engineers
PROJECT NAME: CCASW ES 1st 2023 HMSP
PROJECT NUMBER: 23001
ADDRESS: 1690 All State Court, Suite 100
CITY/STATE/ZIP: West Des Moines, IA 50265

								Preservative								Matrix						Analyze For:							
Sample ID	# of Containers Ordered	Date Sampled	Time Sampled	# of Containers Shipped	Grab	Composite	Field Filtered	Ice	HCl (Red & White Label)	HNO3 (Blue & White Label)	NaOH (Orange & White Label)	Plastic (Yellow & White Label)	Glass (Yellow & White Label)	Na2S2O3 (Black & White Label)	Other	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Trip Blank	Appendix I	Total Suspended Solids	2,4-D	3/4 Methylphenol	Trip Blank				Fax Results
MW-06-7R								X								X						X	X							
MW-05-2								X								X						X	X							
MW-05-3								X								X						X	X							
MW-05-8R								X								X						X	X							
MW-19	1	8/15	12:45		X			X								X						X	X							
MW-25R								X								X						X	X							
MW 28								X								X						X	X							
MW 29								X								X						X	X							
MW-90-11	1	8/15	16:50		X			X								X						X	X							
MW 20	1	8/15	11:20		X			X								X						X	X							
MW 24	1	8/15	9:46		X			X								X						X	X							
MW-32	1	8/15	19:05		X			X								X						X	X							
MW 33	1	8/15	18 25		X			X								X						X	X	X	X					
UD 2								X								X						X	X							
GU-1								X								X						X	X							
MW-39								X								X						X	X							
MW-40								X								X						X	X							
MW-41								X								X						X	X							
MW-42								X								X						X	X							
MW-43BG								X								X						X	X							
MW-DS1								X								X						X	X							
MW-DS2																						X	X							
Trip Blank																					X					X				

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Time
Caleb Gomez	8/16	10:31	Tony Eckle	8/16	1032	Tony Eckle	8/16 1530

Shipped Via:	Received for Lab by	Date	Time	Comments	Shipped Via
	Mu	8-17-23	835	Temper re upon Accept.	

(1) For analysis of than appendi and report to the detection lim. Please make sure that the detection lim below the EPA MCL
(2) For analysis of than appendi and report to the reporting lim not the detection lim. Please make sure that the reporting lim. are below the EPA's MCL.
(3) Result column for LOD Flag, when non-detect, please report the reporting lim or the detection lim lead of indicating with "ND"

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613
Phone 319-277-2401 Fax 319-277-2425

Chain of Custody Record

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310-262782 COC

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Liechti Meredith L	COC No.: 310-64435 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: meredith liechti@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State Program - Iowa	Job #: 310-262782-1
Address: 2417 Bond Street,	Due Date Requested: 8/30/2023		
City: University Park	TAT Requested (days):		
State, Zip: IL, 60484			
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #:		
Email:	WO #:		
Project Name: CCASW ES 1st 2023 HMSP	Project #: 31002710		
Site:	SSOW#:		

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8151A/8151A_AP (MOD) 2,4-D/2,4,5-TP	Total Number of containers	Special Instructions/Note
			Preservation Code:						
MW-33 (310-262782-6)	8/15/23	18 25 Central		Water			X	2	

Note Since laboratory accreditations are subject to change Eurofins Environment Testing North Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing North Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing North Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central LLC

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	8/7/23 1220		Stephanie Hernandez	8/18/23 0940	EETA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks 1 1+0 8

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-262782-1
SDG Number: 2301

Login Number: 262782
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-262782-1
SDG Number: 2301

Login Number: 262782
List Number: 2
Creator: Hernandez, Stephanie

List Source: Eurofins Chicago
List Creation: 08/18/23 07:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Nathan Ohrt
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 8/29/2023 11:01:29 AM

JOB DESCRIPTION

CCASW ES 1st 2023 HMSP
SDG NUMBER 23001

JOB NUMBER

310-263057-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Eurofins Cedar Falls

Job Notes

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

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

Authorization

Generated
8/29/2023 11:01:29 AM

Authorized for release by
Meredith Liechti, Service Center Manager
meredith.liechti@et.eurofinsus.com
(319)277-2401

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Job ID: 310-263057-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-263057-1

Receipt
The samples were received on 8/21/2023 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 310-397537 recovered above the upper control limit for 2-Hexanone (33.3%D) and 4-Methyl-2-pentanone (MIBK) (41.0%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-397537/3).

Method 8260D: The laboratory control sample (LCS) for analytical batch 310-397537 recovered outside control limits for the following analytes: 2-Hexanone and 4-Methyl-2-pentanone (MIBK). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

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

Sample Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-263057-1	GU-1	Ground Water	08/17/23 13:05	08/21/23 16:15
310-263057-2	MW-39	Ground Water	08/17/23 14:50	08/21/23 16:15
310-263057-3	MW-40	Ground Water	08/18/23 10:15	08/21/23 16:15
310-263057-4	MW-41	Ground Water	08/18/23 11:22	08/21/23 16:15
310-263057-5	MW-42	Ground Water	08/17/23 17:00	08/21/23 16:15
310-263057-6	MW-43BG	Ground Water	08/18/23 12:31	08/21/23 16:15
310-263057-7	MW-DS2	Ground Water	08/18/23 10:20	08/21/23 16:15

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: GU-1 — Lab Sample ID: 310-263057-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.64		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	1.08		1.00	0.400	ug/L	1		8260D	Total/NA
Chloroethane	2.11	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.67		1.00	0.210	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.22		1.00	0.220	ug/L	1		8260D	Total/NA
Vinyl chloride	2.01		1.00	0.180	ug/L	1		8260D	Total/NA
Arsenic	0.0193		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.413		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cobalt	0.000544		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00244	J	0.00500	0.00190	mg/L	1		6020B	Total/NA
Total Suspended Solids	38.0		15.0	5.10	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-39 — Lab Sample ID: 310-263057-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000547	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.350		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cobalt	0.00290		0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	13.8		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-40 — Lab Sample ID: 310-263057-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0146		0.00200	0.000640	mg/L	1		6020B	Total/NA
Total Suspended Solids	5.50		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-41 — Lab Sample ID: 310-263057-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.28	J	10.0	3.10	ug/L	1		8260D	Total/NA
Arsenic	0.00234		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.168		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cobalt	0.000436	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	14.3		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-42 — Lab Sample ID: 310-263057-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.167		0.00200	0.000640	mg/L	1		6020B	Total/NA
Selenium	0.00157	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Suspended Solids	20.9		1.88	0.638	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-43BG — Lab Sample ID: 310-263057-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00556		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.333		0.00200	0.000640	mg/L	1		6020B	Total/NA
Cobalt	0.000425	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000338	J	0.000500	0.000240	mg/L	1		6020B	Total/NA
Total Suspended Solids	42.5		3.75	1.28	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-DS2

Lab Sample ID: 310-263057-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0153		0.00200	0.000640	mg/L	1		6020B	Total/NA
Zinc	0.00644	J	0.0200	0.00640	mg/L	1		6020B	Total/NA
Total Suspended Solids	2.88		1.88	0.638	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Quantitation Limit Exceptions Summary

Client: SCS Engineers
Job ID: 310-263057-1
Project/Site: CCASW ES 1st 2023 HMSP
SDG: 23001

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
8260D	1,2-Dibromo-3-Chloropropane	Ground Water	Total/NA	ug/L	1.20	5
8260D	1,2-Dibromoethane (EDB)	Ground Water	Total/NA	ug/L	0.340	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: GU-1

Date Collected: 08/17/23 13:05
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-1

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/24/23 02:41	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/24/23 02:41	1
Benzene	**1.64**		0.500	0.220	ug/L			08/24/23 02:41	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/24/23 02:41	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/24/23 02:41	1
Bromoform	<5.00		5.00	0.780	ug/L			08/24/23 02:41	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/24/23 02:41	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/24/23 02:41	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/24/23 02:41	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/24/23 02:41	1
Chlorobenzene	**1.08**		1.00	0.400	ug/L			08/24/23 02:41	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/24/23 02:41	1
Chloroethane	**2.11**	**J**	4.00	0.790	ug/L			08/24/23 02:41	1
Chloroform	<3.00		3.00	1.30	ug/L			08/24/23 02:41	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/24/23 02:41	1
cis-1,2-Dichloroethene	**1.67**		1.00	0.210	ug/L			08/24/23 02:41	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/24/23 02:41	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/24/23 02:41	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/24/23 02:41	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/24/23 02:41	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/24/23 02:41	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/24/23 02:41	1
1,1-Dichloroethane	**1.22**		1.00	0.220	ug/L			08/24/23 02:41	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/24/23 02:41	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/24/23 02:41	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/24/23 02:41	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/24/23 02:41	1
2-Hexanone	<10.0	*+	10.0	2.00	ug/L			08/24/23 02:41	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/24/23 02:41	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/24/23 02:41	1
4-Methyl-2-pentanone (MIBK)	<10.0	*+	10.0	2.10	ug/L			08/24/23 02:41	1
Styrene	<1.00		1.00	0.370	ug/L			08/24/23 02:41	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/24/23 02:41	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/24/23 02:41	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/24/23 02:41	1
Toluene	<1.00		1.00	0.430	ug/L			08/24/23 02:41	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/24/23 02:41	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/24/23 02:41	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/24/23 02:41	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/24/23 02:41	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/24/23 02:41	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/24/23 02:41	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/24/23 02:41	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/24/23 02:41	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/24/23 02:41	1
Vinyl chloride	**2.01**		1.00	0.180	ug/L			08/24/23 02:41	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/24/23 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/24/23 02:41*	*1*

Client Sample ID: GU-1

Date Collected: 08/17/23 13:05
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-1

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*90*		*80 - 128*		*08/24/23 02:41*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*08/24/23 02:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 20:11	1
Arsenic	**0.0193**		0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 20:11	1
Barium	**0.413**		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 20:11	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 20:11	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 20:11	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:11	1
Cobalt	**0.000544**		0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 20:11	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 20:11	1
Lead	<0.000500		0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 20:11	1
Nickel	**0.00244**	**J**	0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 20:11	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 20:11	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 20:11	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 20:11	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:11	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 20:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**38.0**		15.0	5.10	mg/L			08/22/23 11:39	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-39

Date Collected: 08/17/23 14:50
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-2

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/24/23 03:04	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/24/23 03:04	1
Benzene	<0.500		0.500	0.220	ug/L			08/24/23 03:04	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/24/23 03:04	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/24/23 03:04	1
Bromoform	<5.00		5.00	0.780	ug/L			08/24/23 03:04	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/24/23 03:04	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/24/23 03:04	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/24/23 03:04	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/24/23 03:04	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/24/23 03:04	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/24/23 03:04	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/24/23 03:04	1
Chloroform	<3.00		3.00	1.30	ug/L			08/24/23 03:04	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/24/23 03:04	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/24/23 03:04	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/24/23 03:04	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/24/23 03:04	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/24/23 03:04	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/24/23 03:04	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/24/23 03:04	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/24/23 03:04	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/24/23 03:04	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/24/23 03:04	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/24/23 03:04	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/24/23 03:04	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/24/23 03:04	1
2-Hexanone	<10.0	*+	10.0	2.00	ug/L			08/24/23 03:04	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/24/23 03:04	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/24/23 03:04	1
4-Methyl-2-pentanone (MIBK)	<10.0	*+	10.0	2.10	ug/L			08/24/23 03:04	1
Styrene	<1.00		1.00	0.370	ug/L			08/24/23 03:04	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/24/23 03:04	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/24/23 03:04	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/24/23 03:04	1
Toluene	<1.00		1.00	0.430	ug/L			08/24/23 03:04	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/24/23 03:04	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/24/23 03:04	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/24/23 03:04	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/24/23 03:04	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/24/23 03:04	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/24/23 03:04	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/24/23 03:04	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/24/23 03:04	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/24/23 03:04	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/24/23 03:04	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/24/23 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*08/24/23 03:04*	*1*

Client Sample ID: MW-39

Date Collected: 08/17/23 14:50
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-2

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*80 - 128*		*08/24/23 03:04*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*08/24/23 03:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 20:13	1
Arsenic	**0.000547**	**J**	0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 20:13	1
Barium	**0.350**		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 20:13	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 20:13	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 20:13	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:13	1
Cobalt	**0.00290**		0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 20:13	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 20:13	1
Lead	<0.000500		0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 20:13	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 20:13	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 20:13	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 20:13	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 20:13	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:13	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 20:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**13.8**		1.88	0.638	mg/L			08/22/23 11:39	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-40

Date Collected: 08/18/23 10:15
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-3

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/24/23 03:27	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/24/23 03:27	1
Benzene	<0.500		0.500	0.220	ug/L			08/24/23 03:27	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/24/23 03:27	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/24/23 03:27	1
Bromoform	<5.00		5.00	0.780	ug/L			08/24/23 03:27	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/24/23 03:27	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/24/23 03:27	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/24/23 03:27	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/24/23 03:27	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/24/23 03:27	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/24/23 03:27	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/24/23 03:27	1
Chloroform	<3.00		3.00	1.30	ug/L			08/24/23 03:27	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/24/23 03:27	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/24/23 03:27	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/24/23 03:27	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/24/23 03:27	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/24/23 03:27	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/24/23 03:27	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/24/23 03:27	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/24/23 03:27	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/24/23 03:27	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/24/23 03:27	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/24/23 03:27	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/24/23 03:27	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/24/23 03:27	1
2-Hexanone	<10.0	*+	10.0	2.00	ug/L			08/24/23 03:27	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/24/23 03:27	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/24/23 03:27	1
4-Methyl-2-pentanone (MIBK)	<10.0	*+	10.0	2.10	ug/L			08/24/23 03:27	1
Styrene	<1.00		1.00	0.370	ug/L			08/24/23 03:27	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/24/23 03:27	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/24/23 03:27	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/24/23 03:27	1
Toluene	<1.00		1.00	0.430	ug/L			08/24/23 03:27	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/24/23 03:27	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/24/23 03:27	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/24/23 03:27	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/24/23 03:27	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/24/23 03:27	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/24/23 03:27	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/24/23 03:27	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/24/23 03:27	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/24/23 03:27	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/24/23 03:27	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/24/23 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*08/24/23 03:27*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-40

Date Collected: 08/18/23 10:15
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-3

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*80 - 128*		*08/24/23 03:27*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/24/23 03:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 20:15	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 20:15	1
Barium	**0.0146**		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 20:15	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 20:15	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 20:15	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:15	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 20:15	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 20:15	1
Lead	<0.000500		0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 20:15	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 20:15	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 20:15	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 20:15	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 20:15	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:15	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**5.50**		1.88	0.638	mg/L			08/22/23 11:39	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-41

Date Collected: 08/18/23 11:22
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-4

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**4.28**	**J**	10.0	3.10	ug/L			08/24/23 03:49	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/24/23 03:49	1
Benzene	<0.500		0.500	0.220	ug/L			08/24/23 03:49	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/24/23 03:49	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/24/23 03:49	1
Bromoform	<5.00		5.00	0.780	ug/L			08/24/23 03:49	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/24/23 03:49	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/24/23 03:49	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/24/23 03:49	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/24/23 03:49	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/24/23 03:49	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/24/23 03:49	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/24/23 03:49	1
Chloroform	<3.00		3.00	1.30	ug/L			08/24/23 03:49	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/24/23 03:49	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/24/23 03:49	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/24/23 03:49	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/24/23 03:49	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/24/23 03:49	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/24/23 03:49	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/24/23 03:49	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/24/23 03:49	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/24/23 03:49	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/24/23 03:49	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/24/23 03:49	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/24/23 03:49	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/24/23 03:49	1
2-Hexanone	<10.0	*+	10.0	2.00	ug/L			08/24/23 03:49	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/24/23 03:49	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/24/23 03:49	1
4-Methyl-2-pentanone (MIBK)	<10.0	*+	10.0	2.10	ug/L			08/24/23 03:49	1
Styrene	<1.00		1.00	0.370	ug/L			08/24/23 03:49	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/24/23 03:49	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/24/23 03:49	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/24/23 03:49	1
Toluene	<1.00		1.00	0.430	ug/L			08/24/23 03:49	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/24/23 03:49	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/24/23 03:49	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/24/23 03:49	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/24/23 03:49	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/24/23 03:49	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/24/23 03:49	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/24/23 03:49	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/24/23 03:49	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/24/23 03:49	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/24/23 03:49	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/24/23 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/24/23 03:49*	*1*

Client Sample ID: MW-41

Date Collected: 08/18/23 11:22
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-4

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*80 - 128*		*08/24/23 03:49*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*08/24/23 03:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 20:18	1
Arsenic	**0.00234**		0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 20:18	1
Barium	**0.168**		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 20:18	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 20:18	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 20:18	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:18	1
Cobalt	**0.000436**	**J**	0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 20:18	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 20:18	1
Lead	<0.000500		0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 20:18	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 20:18	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 20:18	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 20:18	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 20:18	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:18	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**14.3**		1.88	0.638	mg/L			08/22/23 11:39	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-42

Date Collected: 08/17/23 17:00
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-5

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/24/23 04:12	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/24/23 04:12	1
Benzene	<0.500		0.500	0.220	ug/L			08/24/23 04:12	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/24/23 04:12	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/24/23 04:12	1
Bromoform	<5.00		5.00	0.780	ug/L			08/24/23 04:12	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/24/23 04:12	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/24/23 04:12	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/24/23 04:12	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/24/23 04:12	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/24/23 04:12	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/24/23 04:12	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/24/23 04:12	1
Chloroform	<3.00		3.00	1.30	ug/L			08/24/23 04:12	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/24/23 04:12	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/24/23 04:12	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/24/23 04:12	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/24/23 04:12	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/24/23 04:12	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/24/23 04:12	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/24/23 04:12	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/24/23 04:12	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/24/23 04:12	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/24/23 04:12	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/24/23 04:12	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/24/23 04:12	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/24/23 04:12	1
2-Hexanone	<10.0	*+	10.0	2.00	ug/L			08/24/23 04:12	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/24/23 04:12	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/24/23 04:12	1
4-Methyl-2-pentanone (MIBK)	<10.0	*+	10.0	2.10	ug/L			08/24/23 04:12	1
Styrene	<1.00		1.00	0.370	ug/L			08/24/23 04:12	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/24/23 04:12	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/24/23 04:12	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/24/23 04:12	1
Toluene	<1.00		1.00	0.430	ug/L			08/24/23 04:12	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/24/23 04:12	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/24/23 04:12	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/24/23 04:12	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/24/23 04:12	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/24/23 04:12	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/24/23 04:12	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/24/23 04:12	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/24/23 04:12	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/24/23 04:12	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/24/23 04:12	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/24/23 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/24/23 04:12*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-42

Date Collected: 08/17/23 17:00
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-5

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*80 - 128*		*08/24/23 04:12*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/24/23 04:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 20:20	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 20:20	1
Barium	**0.167**		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 20:20	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 20:20	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 20:20	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:20	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 20:20	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 20:20	1
Lead	<0.000500		0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 20:20	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 20:20	1
Selenium	**0.00157**	**J**	0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 20:20	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 20:20	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 20:20	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:20	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 20:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**20.9**		1.88	0.638	mg/L			08/22/23 11:39	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-43BG

Date Collected: 08/18/23 12:31
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-6

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/24/23 04:34	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/24/23 04:34	1
Benzene	<0.500		0.500	0.220	ug/L			08/24/23 04:34	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/24/23 04:34	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/24/23 04:34	1
Bromoform	<5.00		5.00	0.780	ug/L			08/24/23 04:34	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/24/23 04:34	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/24/23 04:34	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/24/23 04:34	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/24/23 04:34	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/24/23 04:34	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/24/23 04:34	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/24/23 04:34	1
Chloroform	<3.00		3.00	1.30	ug/L			08/24/23 04:34	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/24/23 04:34	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/24/23 04:34	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/24/23 04:34	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/24/23 04:34	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/24/23 04:34	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/24/23 04:34	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/24/23 04:34	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/24/23 04:34	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/24/23 04:34	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/24/23 04:34	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/24/23 04:34	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/24/23 04:34	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/24/23 04:34	1
2-Hexanone	<10.0	*+	10.0	2.00	ug/L			08/24/23 04:34	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/24/23 04:34	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/24/23 04:34	1
4-Methyl-2-pentanone (MIBK)	<10.0	*+	10.0	2.10	ug/L			08/24/23 04:34	1
Styrene	<1.00		1.00	0.370	ug/L			08/24/23 04:34	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/24/23 04:34	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/24/23 04:34	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/24/23 04:34	1
Toluene	<1.00		1.00	0.430	ug/L			08/24/23 04:34	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/24/23 04:34	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/24/23 04:34	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/24/23 04:34	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/24/23 04:34	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/24/23 04:34	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/24/23 04:34	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/24/23 04:34	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/24/23 04:34	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/24/23 04:34	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/24/23 04:34	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/24/23 04:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/24/23 04:34*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-43BG

Date Collected: 08/18/23 12:31
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-6

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*80 - 128*		*08/24/23 04:34*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/24/23 04:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 20:22	1
Arsenic	**0.00556**		0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 20:22	1
Barium	**0.333**		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 20:22	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 20:22	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 20:22	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:22	1
Cobalt	**0.000425**	**J**	0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 20:22	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 20:22	1
Lead	**0.000338**	**J**	0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 20:22	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 20:22	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 20:22	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 20:22	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 20:22	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:22	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**42.5**		3.75	1.28	mg/L			08/22/23 11:39	1

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-DS2

Date Collected: 08/18/23 10:20
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-7

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/24/23 04:57	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/24/23 04:57	1
Benzene	<0.500		0.500	0.220	ug/L			08/24/23 04:57	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/24/23 04:57	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/24/23 04:57	1
Bromoform	<5.00		5.00	0.780	ug/L			08/24/23 04:57	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/24/23 04:57	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/24/23 04:57	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/24/23 04:57	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/24/23 04:57	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/24/23 04:57	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/24/23 04:57	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/24/23 04:57	1
Chloroform	<3.00		3.00	1.30	ug/L			08/24/23 04:57	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/24/23 04:57	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/24/23 04:57	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/24/23 04:57	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/24/23 04:57	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/24/23 04:57	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/24/23 04:57	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/24/23 04:57	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/24/23 04:57	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/24/23 04:57	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/24/23 04:57	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/24/23 04:57	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/24/23 04:57	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/24/23 04:57	1
2-Hexanone	<10.0	*+	10.0	2.00	ug/L			08/24/23 04:57	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/24/23 04:57	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/24/23 04:57	1
4-Methyl-2-pentanone (MIBK)	<10.0	*+	10.0	2.10	ug/L			08/24/23 04:57	1
Styrene	<1.00		1.00	0.370	ug/L			08/24/23 04:57	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/24/23 04:57	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/24/23 04:57	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/24/23 04:57	1
Toluene	<1.00		1.00	0.430	ug/L			08/24/23 04:57	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/24/23 04:57	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/24/23 04:57	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/24/23 04:57	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/24/23 04:57	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/24/23 04:57	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/24/23 04:57	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/24/23 04:57	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/24/23 04:57	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/24/23 04:57	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/24/23 04:57	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/24/23 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/24/23 04:57*	*1*

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-DS2

Date Collected: 08/18/23 10:20
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-7

Matrix: Ground Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*80 - 128*		*08/24/23 04:57*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/24/23 04:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 20:25	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 20:25	1
Barium	**0.0153**		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 20:25	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 20:25	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 20:25	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:25	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 20:25	1
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 20:25	1
Lead	<0.000500		0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 20:25	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 20:25	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 20:25	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 20:25	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 20:25	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 20:25	1
Zinc	**0.00644**	**J**	0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 20:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**2.88**		1.88	0.638	mg/L			08/22/23 11:39	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

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

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
310-263057-1	GU-1	99	90	104
310-263057-2	MW-39	101	89	104
310-263057-2 MS	MW-39	96	90	105
310-263057-2 MSD	MW-39	96	91	106
310-263057-3	MW-40	101	89	103
310-263057-4	MW-41	99	89	104
310-263057-5	MW-42	98	89	103
310-263057-6	MW-43BG	99	89	103
310-263057-7	MW-DS2	100	89	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
LCS 310-397537/6	Lab Control Sample	95	93	107
LCS 310-397537/7	Lab Control Sample	99	91	105
MB 310-397537/5	Method Blank	98	89	104

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Lab Sample ID: MB 310-397537/5
Matrix: Water
Analysis Batch: 397537

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0	3.10	ug/L			08/23/23 22:55	1
Acrylonitrile	<10.0		10.0	2.20	ug/L			08/23/23 22:55	1
Benzene	<0.500		0.500	0.220	ug/L			08/23/23 22:55	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			08/23/23 22:55	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			08/23/23 22:55	1
Bromoform	<5.00		5.00	0.780	ug/L			08/23/23 22:55	1
Bromomethane	<4.00		4.00	1.10	ug/L			08/23/23 22:55	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			08/23/23 22:55	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			08/23/23 22:55	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			08/23/23 22:55	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			08/23/23 22:55	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			08/23/23 22:55	1
Chloroethane	<4.00		4.00	0.790	ug/L			08/23/23 22:55	1
Chloroform	<3.00		3.00	1.30	ug/L			08/23/23 22:55	1
Chloromethane	<3.00		3.00	0.610	ug/L			08/23/23 22:55	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			08/23/23 22:55	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			08/23/23 22:55	1
1,2-Dibromo-3-Chloropropane	<1.20		1.20	1.20	ug/L			08/23/23 22:55	1
1,2-Dibromoethane (EDB)	<0.340		0.340	0.340	ug/L			08/23/23 22:55	1
Dibromomethane	<1.00		1.00	0.330	ug/L			08/23/23 22:55	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			08/23/23 22:55	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			08/23/23 22:55	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			08/23/23 22:55	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			08/23/23 22:55	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			08/23/23 22:55	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			08/23/23 22:55	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			08/23/23 22:55	1
2-Hexanone	<10.0		10.0	2.00	ug/L			08/23/23 22:55	1
Iodomethane	<10.0		10.0	7.00	ug/L			08/23/23 22:55	1
Methylene Chloride	<5.00		5.00	1.70	ug/L			08/23/23 22:55	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			08/23/23 22:55	1
Styrene	<1.00		1.00	0.370	ug/L			08/23/23 22:55	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			08/23/23 22:55	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			08/23/23 22:55	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			08/23/23 22:55	1
Toluene	<1.00		1.00	0.430	ug/L			08/23/23 22:55	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			08/23/23 22:55	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			08/23/23 22:55	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			08/23/23 22:55	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			08/23/23 22:55	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			08/23/23 22:55	1
Trichloroethene	<1.00		1.00	0.430	ug/L			08/23/23 22:55	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			08/23/23 22:55	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			08/23/23 22:55	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			08/23/23 22:55	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/23/23 22:55	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			08/23/23 22:55	1

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

Lab Sample ID: MB 310-397537/5
Matrix: Water
Analysis Batch: 397537

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		08/23/23 22:55	1
Dibromofluoromethane (Surr)	89		80 - 128		08/23/23 22:55	1
Toluene-d8 (Surr)	104		80 - 120		08/23/23 22:55	1

Lab Sample ID: LCS 310-397537/6
Matrix: Water
Analysis Batch: 397537

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	40.0	57.91		ug/L		145	50 - 150
Acrylonitrile	200	257.3		ug/L		129	50 - 150
Benzene	20.0	20.89		ug/L		104	73 - 122
Bromochloromethane	20.0	18.51		ug/L		93	68 - 132
Bromodichloromethane	20.0	20.14		ug/L		101	72 - 121
Bromoform	20.0	16.25		ug/L		81	55 - 129
2-Butanone (MEK)	40.0	52.14		ug/L		130	50 - 150
Carbon disulfide	20.0	19.85		ug/L		99	58 - 131
Carbon tetrachloride	20.0	20.35		ug/L		102	67 - 132
Chlorobenzene	20.0	20.30		ug/L		101	69 - 121
Chlorodibromomethane	20.0	16.86		ug/L		84	69 - 122
Chloroform	20.0	20.13		ug/L		101	72 - 120
cis-1,2-Dichloroethene	20.0	20.88		ug/L		104	74 - 120
cis-1,3-Dichloropropene	20.0	21.18		ug/L		106	71 - 126
1,2-Dibromo-3-Chloropropane	20.0	22.75		ug/L		114	50 - 150
1,2-Dibromoethane (EDB)	20.0	20.14		ug/L		101	73 - 125
Dibromomethane	20.0	19.55		ug/L		98	72 - 123
1,2-Dichlorobenzene	20.0	19.63		ug/L		98	68 - 120
1,4-Dichlorobenzene	20.0	19.51		ug/L		98	67 - 120
1,1-Dichloroethane	20.0	21.41		ug/L		107	71 - 123
1,2-Dichloroethane	20.0	19.90		ug/L		99	70 - 124
1,1-Dichloroethene	20.0	23.54		ug/L		118	61 - 129
1,2-Dichloropropane	20.0	22.11		ug/L		111	73 - 121
Ethylbenzene	20.0	21.59		ug/L		108	69 - 122
2-Hexanone	40.0	54.55	*+	ug/L		136	60 - 132
Iodomethane	20.0	14.97		ug/L		75	10 - 150
Methylene Chloride	20.0	20.84		ug/L		104	50 - 150
4-Methyl-2-pentanone (MIBK)	40.0	56.04	*+	ug/L		140	62 - 130
Styrene	20.0	21.50		ug/L		107	67 - 125
1,1,1,2-Tetrachloroethane	20.0	19.15		ug/L		96	68 - 123
1,1,2,2-Tetrachloroethane	20.0	20.83		ug/L		104	64 - 124
Tetrachloroethene	20.0	20.45		ug/L		102	69 - 131
Toluene	20.0	21.04		ug/L		105	72 - 121
trans-1,4-Dichloro-2-butene	20.0	23.57		ug/L		118	48 - 150
trans-1,2-Dichloroethene	20.0	22.04		ug/L		110	68 - 125
trans-1,3-Dichloropropene	20.0	20.47		ug/L		102	68 - 124
1,1,1-Trichloroethane	20.0	20.80		ug/L		104	71 - 128
1,1,2-Trichloroethane	20.0	20.78		ug/L		104	70 - 124
Trichloroethene	20.0	20.01		ug/L		100	73 - 126

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

Lab Sample ID: LCS 310-397537/6
Matrix: Water
Analysis Batch: 397537

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	20.0	19.22		ug/L		96	64 - 125
Vinyl acetate	40.0	57.23		ug/L		143	50 - 150
Xylenes, Total	40.0	41.92		ug/L		105	68 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*80 - 128*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: LCS 310-397537/7
Matrix: Water
Analysis Batch: 397537

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	16.87		ug/L		84	24 - 150
Chloroethane	20.0	23.50		ug/L		117	51 - 137
Chloromethane	20.0	20.91		ug/L		105	37 - 150
Trichlorofluoromethane	20.0	24.70		ug/L		124	56 - 144
Vinyl chloride	20.0	20.58		ug/L		103	57 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*80 - 128*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: 310-263057-2 MS
Matrix: Ground Water
Analysis Batch: 397537

Client Sample ID: MW-39
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	<10.0		40.0	44.93		ug/L		112	35 - 150
Acrylonitrile	<10.0		200	204.4		ug/L		102	50 - 150
Benzene	<0.500		20.0	17.35		ug/L		87	47 - 130
Bromochloromethane	<5.00		20.0	16.02		ug/L		80	54 - 132
Bromodichloromethane	<1.00		20.0	16.52		ug/L		83	58 - 130
Bromoform	<5.00		20.0	12.72		ug/L		64	42 - 130
2-Butanone (MEK)	<10.0		40.0	41.74		ug/L		104	47 - 150
Carbon disulfide	<1.00		20.0	17.07		ug/L		85	39 - 131
Carbon tetrachloride	<2.00		20.0	16.18		ug/L		81	45 - 132
Chlorobenzene	<1.00		20.0	17.24		ug/L		86	54 - 130
Chlorodibromomethane	<5.00		20.0	13.93		ug/L		70	53 - 130
Chloroform	<3.00		20.0	16.65		ug/L		83	55 - 130
cis-1,2-Dichloroethene	<1.00		20.0	17.66		ug/L		88	52 - 130
cis-1,3-Dichloropropene	<5.00		20.0	17.76		ug/L		89	55 - 130
1,2-Dibromo-3-Chloropropane	<1.20		20.0	19.89		ug/L		99	45 - 150
1,2-Dibromoethane (EDB)	<0.340		20.0	15.91		ug/L		80	59 - 130
Dibromomethane	<1.00		20.0	16.57		ug/L		83	61 - 130
1,2-Dichlorobenzene	<1.00		20.0	16.46		ug/L		82	53 - 130

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

Lab Sample ID: 310-263057-2 MS
Matrix: Ground Water
Analysis Batch: 397537

Client Sample ID: MW-39
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	<1.00		20.0	16.36		ug/L		82	53 - 130
1,1-Dichloroethane	<1.00		20.0	19.03		ug/L		95	53 - 130
1,2-Dichloroethane	<1.00		20.0	16.97		ug/L		85	57 - 130
1,1-Dichloroethene	<2.00		20.0	18.71		ug/L		94	39 - 130
1,2-Dichloropropane	<1.00		20.0	18.70		ug/L		94	60 - 130
Ethylbenzene	<1.00		20.0	17.58		ug/L		88	48 - 130
2-Hexanone	<10.0	*+	40.0	44.25		ug/L		111	45 - 132
Iodomethane	<10.0		20.0	12.96		ug/L		65	10 - 150
Methylene Chloride	<5.00		20.0	18.10		ug/L		90	50 - 150
4-Methyl-2-pentanone (MIBK)	<10.0	*+	40.0	44.34		ug/L		111	46 - 132
Styrene	<1.00		20.0	17.68		ug/L		88	46 - 130
1,1,1,2-Tetrachloroethane	<1.00		20.0	15.74		ug/L		79	52 - 130
1,1,2,2-Tetrachloroethane	<1.00		20.0	16.97		ug/L		85	51 - 130
Tetrachloroethene	<1.00		20.0	15.67		ug/L		78	42 - 131
Toluene	<1.00		20.0	17.65		ug/L		88	48 - 130
trans-1,4-Dichloro-2-butene	<10.0		20.0	17.92		ug/L		90	33 - 150
trans-1,2-Dichloroethene	<1.00		20.0	17.73		ug/L		89	54 - 130
trans-1,3-Dichloropropene	<5.00		20.0	16.74		ug/L		84	51 - 130
1,1,1-Trichloroethane	<1.00		20.0	16.76		ug/L		84	49 - 130
1,1,2-Trichloroethane	<1.00		20.0	17.10		ug/L		86	56 - 130
Trichloroethene	<1.00		20.0	16.67		ug/L		83	55 - 130
1,2,3-Trichloropropane	<1.00		20.0	16.73		ug/L		84	50 - 130
Vinyl acetate	<10.0		40.0	43.65		ug/L		109	34 - 150
Xylenes, Total	<3.00		40.0	34.32		ug/L		86	44 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*90*		*80 - 128*
Toluene-d8 (Surr)	*105*		*80 - 120*

Lab Sample ID: 310-263057-2 MSD
Matrix: Ground Water
Analysis Batch: 397537

Client Sample ID: MW-39
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	<10.0		40.0	46.16		ug/L		115	35 - 150	3	26
Acrylonitrile	<10.0		200	210.2		ug/L		105	50 - 150	3	21
Benzene	<0.500		20.0	18.16		ug/L		91	47 - 130	5	20
Bromochloromethane	<5.00		20.0	16.28		ug/L		81	54 - 132	2	20
Bromodichloromethane	<1.00		20.0	17.26		ug/L		86	58 - 130	4	20
Bromoform	<5.00		20.0	13.06		ug/L		65	42 - 130	3	20
2-Butanone (MEK)	<10.0		40.0	42.97		ug/L		107	47 - 150	3	20
Carbon disulfide	<1.00		20.0	16.08		ug/L		80	39 - 131	6	32
Carbon tetrachloride	<2.00		20.0	15.48		ug/L		77	45 - 132	4	20
Chlorobenzene	<1.00		20.0	17.49		ug/L		87	54 - 130	1	20
Chlorodibromomethane	<5.00		20.0	14.85		ug/L		74	53 - 130	6	20
Chloroform	<3.00		20.0	16.79		ug/L		84	55 - 130	1	20
cis-1,2-Dichloroethene	<1.00		20.0	17.63		ug/L		88	52 - 130	0	20

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

Lab Sample ID: 310-263057-2 MSD
Matrix: Ground Water
Analysis Batch: 397537

Client Sample ID: MW-39
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	<5.00		20.0	18.27		ug/L		91	55 - 130	3	20
1,2-Dibromo-3-Chloropropane	<1.20		20.0	21.19		ug/L		106	45 - 150	6	20
1,2-Dibromoethane (EDB)	<0.340		20.0	16.45		ug/L		82	59 - 130	3	20
Dibromomethane	<1.00		20.0	17.24		ug/L		86	61 - 130	4	20
1,2-Dichlorobenzene	<1.00		20.0	17.21		ug/L		86	53 - 130	4	20
1,4-Dichlorobenzene	<1.00		20.0	17.26		ug/L		86	53 - 130	5	20
1,1-Dichloroethane	<1.00		20.0	18.36		ug/L		92	53 - 130	4	20
1,2-Dichloroethane	<1.00		20.0	16.67		ug/L		83	57 - 130	2	21
1,1-Dichloroethene	<2.00		20.0	18.79		ug/L		94	39 - 130	0	28
1,2-Dichloropropane	<1.00		20.0	19.31		ug/L		97	60 - 130	3	31
Ethylbenzene	<1.00		20.0	18.35		ug/L		92	48 - 130	4	20
2-Hexanone	<10.0	*+	40.0	45.19		ug/L		113	45 - 132	2	20
Iodomethane	<10.0		20.0	13.47		ug/L		67	10 - 150	4	35
Methylene Chloride	<5.00		20.0	18.44		ug/L		92	50 - 150	2	24
4-Methyl-2-pentanone (MIBK)	<10.0	*+	40.0	45.76		ug/L		114	46 - 132	3	20
Styrene	<1.00		20.0	18.25		ug/L		91	46 - 130	3	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	15.59		ug/L		78	52 - 130	1	20
1,1,2,2-Tetrachloroethane	<1.00		20.0	17.54		ug/L		88	51 - 130	3	20
Tetrachloroethene	<1.00		20.0	16.22		ug/L		81	42 - 131	3	20
Toluene	<1.00		20.0	17.55		ug/L		88	48 - 130	1	20
trans-1,4-Dichloro-2-butene	<10.0		20.0	17.95		ug/L		90	33 - 150	0	20
trans-1,2-Dichloroethene	<1.00		20.0	17.71		ug/L		89	54 - 130	0	24
trans-1,3-Dichloropropene	<5.00		20.0	16.32		ug/L		82	51 - 130	3	20
1,1,1-Trichloroethane	<1.00		20.0	16.82		ug/L		84	49 - 130	0	20
1,1,2-Trichloroethane	<1.00		20.0	17.76		ug/L		89	56 - 130	4	20
Trichloroethene	<1.00		20.0	16.37		ug/L		82	55 - 130	2	20
1,2,3-Trichloropropane	<1.00		20.0	19.44		ug/L		97	50 - 130	15	20
Vinyl acetate	<10.0		40.0	44.04		ug/L		110	34 - 150	1	27
Xylenes, Total	<3.00		40.0	35.64		ug/L		89	44 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*91*		*80 - 128*
Toluene-d8 (Surr)	*106*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-397575/1-A
Matrix: Water
Analysis Batch: 398012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397575

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		08/24/23 09:05	08/28/23 19:37	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		08/24/23 09:05	08/28/23 19:37	1
Barium	<0.00200		0.00200	0.000640	mg/L		08/24/23 09:05	08/28/23 19:37	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		08/24/23 09:05	08/28/23 19:37	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		08/24/23 09:05	08/28/23 19:37	1
Chromium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 19:37	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		08/24/23 09:05	08/28/23 19:37	1

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

Lab Sample ID: MB 310-397575/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 398012 — **Prep Batch: 397575**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.00500		0.00500	0.00180	mg/L		08/24/23 09:05	08/28/23 19:37	1
Lead	<0.000500		0.000500	0.000240	mg/L		08/24/23 09:05	08/28/23 19:37	1
Nickel	<0.00500		0.00500	0.00190	mg/L		08/24/23 09:05	08/28/23 19:37	1
Selenium	<0.00500		0.00500	0.00140	mg/L		08/24/23 09:05	08/28/23 19:37	1
Silver	<0.00100		0.00100	0.000500	mg/L		08/24/23 09:05	08/28/23 19:37	1
Thallium	<0.00100		0.00100	0.000260	mg/L		08/24/23 09:05	08/28/23 19:37	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		08/24/23 09:05	08/28/23 19:37	1
Zinc	<0.0200		0.0200	0.00640	mg/L		08/24/23 09:05	08/28/23 19:37	1

Lab Sample ID: LCS 310-397575/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 398012 — **Prep Batch: 397575**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2335		mg/L		117	80 - 120
Arsenic	0.200	0.2153		mg/L		108	80 - 120
Barium	0.100	0.1092		mg/L		109	80 - 120
Beryllium	0.100	0.09821		mg/L		98	80 - 120
Cadmium	0.100	0.1093		mg/L		109	80 - 120
Chromium	0.100	0.1057		mg/L		106	80 - 120
Cobalt	0.100	0.1023		mg/L		102	80 - 120
Copper	0.200	0.2194		mg/L		110	80 - 120
Lead	0.200	0.2276		mg/L		114	80 - 120
Nickel	0.200	0.2185		mg/L		109	80 - 120
Selenium	0.400	0.4389		mg/L		110	80 - 120
Silver	0.100	0.09724		mg/L		97	80 - 120
Thallium	0.200	0.1816		mg/L		91	80 - 120
Vanadium	0.100	0.1074		mg/L		107	80 - 120
Zinc	0.200	0.2272		mg/L		114	80 - 120

Lab Sample ID: 310-263057-7 DU — **Client Sample ID: MW-DS2**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 398012 — **Prep Batch: 397575**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Barium	0.0153		0.01447		mg/L		6	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Cadmium	<0.000200		<0.000200		mg/L		NC	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	<0.000500		<0.000500		mg/L		NC	20
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Nickel	<0.00500		<0.00500		mg/L		NC	20
Selenium	<0.00500		<0.00500		mg/L		NC	20
Silver	<0.00100		<0.00100		mg/L		NC	20
Thallium	<0.00100		<0.00100		mg/L		NC	20
Vanadium	<0.00500		<0.00500		mg/L		NC	20

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

Lab Sample ID: 310-263057-7 DU — **Client Sample ID: MW-DS2**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 398012 — **Prep Batch: 397575**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Zinc	0.00644	J		<0.0200		mg/L				NC	20

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

Lab Sample ID: MB 310-397393/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	1.70	mg/L			08/22/23 11:39	1

Lab Sample ID: LCS 310-397393/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397393

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	100.0		mg/L		100	75 - 116		

Lab Sample ID: 310-263057-1 DU — **Client Sample ID: GU-1**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 397393

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	38.0			37.00		mg/L				3	35

QC Association Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

GC/MS VOA

Analysis Batch: 397537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-263057-1	GU-1	Total/NA	Ground Water	8260D	
310-263057-2	MW-39	Total/NA	Ground Water	8260D	
310-263057-3	MW-40	Total/NA	Ground Water	8260D	
310-263057-4	MW-41	Total/NA	Ground Water	8260D	
310-263057-5	MW-42	Total/NA	Ground Water	8260D	
310-263057-6	MW-43BG	Total/NA	Ground Water	8260D	
310-263057-7	MW-DS2	Total/NA	Ground Water	8260D	
MB 310-397537/5	Method Blank	Total/NA	Water	8260D	
LCS 310-397537/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-397537/7	Lab Control Sample	Total/NA	Water	8260D	
310-263057-2 MS	MW-39	Total/NA	Ground Water	8260D	
310-263057-2 MSD	MW-39	Total/NA	Ground Water	8260D	

Metals

Prep Batch: 397575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-263057-1	GU-1	Total/NA	Ground Water	3005A	
310-263057-2	MW-39	Total/NA	Ground Water	3005A	
310-263057-3	MW-40	Total/NA	Ground Water	3005A	
310-263057-4	MW-41	Total/NA	Ground Water	3005A	
310-263057-5	MW-42	Total/NA	Ground Water	3005A	
310-263057-6	MW-43BG	Total/NA	Ground Water	3005A	
310-263057-7	MW-DS2	Total/NA	Ground Water	3005A	
MB 310-397575/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-397575/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-263057-7 DU	MW-DS2	Total/NA	Ground Water	3005A	

Analysis Batch: 398012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-263057-1	GU-1	Total/NA	Ground Water	6020B	397575
310-263057-2	MW-39	Total/NA	Ground Water	6020B	397575
310-263057-3	MW-40	Total/NA	Ground Water	6020B	397575
310-263057-4	MW-41	Total/NA	Ground Water	6020B	397575
310-263057-5	MW-42	Total/NA	Ground Water	6020B	397575
310-263057-6	MW-43BG	Total/NA	Ground Water	6020B	397575
310-263057-7	MW-DS2	Total/NA	Ground Water	6020B	397575
MB 310-397575/1-A	Method Blank	Total/NA	Water	6020B	397575
LCS 310-397575/2-A	Lab Control Sample	Total/NA	Water	6020B	397575
310-263057-7 DU	MW-DS2	Total/NA	Ground Water	6020B	397575

General Chemistry

Analysis Batch: 397393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-263057-1	GU-1	Total/NA	Ground Water	I-3765-85	
310-263057-2	MW-39	Total/NA	Ground Water	I-3765-85	
310-263057-3	MW-40	Total/NA	Ground Water	I-3765-85	
310-263057-4	MW-41	Total/NA	Ground Water	I-3765-85	
310-263057-5	MW-42	Total/NA	Ground Water	I-3765-85	
310-263057-6	MW-43BG	Total/NA	Ground Water	I-3765-85	
310-263057-7	MW-DS2	Total/NA	Ground Water	I-3765-85	

General Chemistry (Continued)

Analysis Batch: 397393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-397393/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-397393/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-263057-1 DU	GU-1	Total/NA	Ground Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: GU-1
Date Collected: 08/17/23 13:05
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397537	FE5V	EET CF	08/24/23 02:41
Total/NA	Prep	3005A			397575	QTZ5	EET CF	08/24/23 09:05
Total/NA	Analysis	6020B		1	398012	DHM5	EET CF	08/28/23 20:11
Total/NA	Analysis	I-3765-85		1	397393	DGU1	EET CF	08/22/23 11:39

Client Sample ID: MW-39
Date Collected: 08/17/23 14:50
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397537	FE5V	EET CF	08/24/23 03:04
Total/NA	Prep	3005A			397575	QTZ5	EET CF	08/24/23 09:05
Total/NA	Analysis	6020B		1	398012	DHM5	EET CF	08/28/23 20:13
Total/NA	Analysis	I-3765-85		1	397393	DGU1	EET CF	08/22/23 11:39

Client Sample ID: MW-40
Date Collected: 08/18/23 10:15
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397537	FE5V	EET CF	08/24/23 03:27
Total/NA	Prep	3005A			397575	QTZ5	EET CF	08/24/23 09:05
Total/NA	Analysis	6020B		1	398012	DHM5	EET CF	08/28/23 20:15
Total/NA	Analysis	I-3765-85		1	397393	DGU1	EET CF	08/22/23 11:39

Client Sample ID: MW-41
Date Collected: 08/18/23 11:22
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397537	FE5V	EET CF	08/24/23 03:49
Total/NA	Prep	3005A			397575	QTZ5	EET CF	08/24/23 09:05
Total/NA	Analysis	6020B		1	398012	DHM5	EET CF	08/28/23 20:18
Total/NA	Analysis	I-3765-85		1	397393	DGU1	EET CF	08/22/23 11:39

Client Sample ID: MW-42
Date Collected: 08/17/23 17:00
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263057-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397537	FE5V	EET CF	08/24/23 04:12
Total/NA	Prep	3005A			397575	QTZ5	EET CF	08/24/23 09:05
Total/NA	Analysis	6020B		1	398012	DHM5	EET CF	08/28/23 20:20
Total/NA	Analysis	I-3765-85		1	397393	DGU1	EET CF	08/22/23 11:39

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Client Sample ID: MW-43BG

Lab Sample ID: 310-263057-6

Date Collected: 08/18/23 12:31
Matrix: Ground Water
Date Received: 08/21/23 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397537	FE5V	EET CF	08/24/23 04:34
Total/NA	Prep	3005A			397575	QTZ5	EET CF	08/24/23 09:05
Total/NA	Analysis	6020B		1	398012	DHM5	EET CF	08/28/23 20:22
Total/NA	Analysis	I-3765-85		1	397393	DGU1	EET CF	08/22/23 11:39

Client Sample ID: MW-DS2

Lab Sample ID: 310-263057-7

Date Collected: 08/18/23 10:20
Matrix: Ground Water
Date Received: 08/21/23 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397537	FE5V	EET CF	08/24/23 04:57
Total/NA	Prep	3005A			397575	QTZ5	EET CF	08/24/23 09:05
Total/NA	Analysis	6020B		1	398012	DHM5	EET CF	08/28/23 20:25
Total/NA	Analysis	I-3765-85		1	397393	DGU1	EET CF	08/22/23 11:39

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

Method Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 HMSP

Job ID: 310-263057-1
SDG: 23001

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

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310-263057 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SFC

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 8/21/23 | TIME 1615 | Received By: EM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☒ No *If yes:* Cooler # _____ of _____

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): +0.1 | Corrected Temp (°C): +0.1

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

TestAmerica

704 Enterprise Drive
Cedar Falls Iowa 50613

319 277 2401 (phone)
515 792 7989 (fax)

SAMPLER: SCS Engineers
SITE NAME: Clinton County Sanitary Landfill (East-South)
ADDRESS:
CITY/STATE/ZIP:
TELEPHONE NUMBER: Fax:
SAMPLED BY: (PRINT NAME) Caleb Gomez
SIGNATURE: Caleb Gomez

REPORT TO:
NAME: Nathan Ohrt (nohrt@scsengineers.com
COMPANY NAME: SCS Engineers
PROJECT NAME: CCASW ES 1st 2023 HMSP
PROJECT NUMBER: 23001
ADDRESS: 1690 All State Court, Suite 100
CITY/STATE/ZIP: West Des Moines, IA 50265

								Preservative								Matrix						Analyze For								
Sample ID	# of Containers Ordered	Date Sampled	Time Sampled	# of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO3 (Red & White Label)	H2 (Blue & White Label)	NaOH (Orange & White Label)	Plas (Yellow & White Label)	Glas (Yellow & White Label)	None (Black & White Label)	Trip B	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Trip Blank	Appendix I	Total Suspended Solids	2,4 D	3/4-Methylphenol	Trip Blank				Fax Results
MW-06-7R								x								x						x	x							
MW-05-2								x								x						x	x							
MW-05-3								x								x						x	x							
MW-05-8R								x								x						x	x							
MW 19								x								x						x	x							
MW 25R								x								x						x	x							
MW-28								x								x						x	x							
MW 29								x								x						x	x							
MW-90-11								x								x						x	x							
MW 20								x								x						x	x							
MW-24								x								x						x	x							
MW-32								x								x						x	x							
MW 33								x								x						x	x	x	x					
UD 2								x								x						x	x							
GU 1		8/17	13:05		X			x								x						x	x							
MW-39		8/17	14:50		X			x								x						x	x							
MW-40		8/18	10:15		X			x								x						x	x							
MW-41		8/18	11:22		X			x								x						x	x							
MW-42		8/17	17:00		X			x								x						x	x							
MW-43BG		8/18	12:31		X			x								x						x	x							
MW DS1								x								x						x	x							
MW DS2		8/18	10:20		X																	x	x							
Trip Blank																					x					x				

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Time
Caleb Gomez	8/21/23	14.00					

Shipped Via	Comments	Shipped Via

Received for lab by	Date	Time	Temperature Upon Receipt

For Appendix I and analysis report to the reporting limit not the detection limit. Make that the reporting limit are below the EPA MCLs.
(2) For analysis other than Appendix I and report to the detection limit. Please make sure that the detection limit below the EPA MCLs.
(3) The "Result" column for LOD files, when non-detect, please report the reporting limit or the detection limit instead of indicating with "ND".

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-263057-1
SDG Number: 23001

Login Number: 263057
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Nathan Ohrt
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

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JOB DESCRIPTION

CCASW ES 1st 2023 Braketing
SDG NUMBER 23001

JOB NUMBER

310-263059-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Eurofins Cedar Falls

Job Notes

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

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

Authorization

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Authorized for release by
Meredith Liechti, Service Center Manager
meredith.liechti@et.eurofinsus.com
(319)277-2401

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Job ID: 310-263059-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-263059-1

Receipt
The sample was received on 8/21/2023 4:15 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C

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

Sample Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-263059-1	MW-90-18	Ground Water	08/17/23 14:05	08/21/23 16:15

Detection Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

Client Sample ID: MW-90-18 **Lab Sample ID: 310-263059-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

Client Sample ID: MW-90-18

Lab Sample ID: 310-263059-1

Date Collected: 08/17/23 14:05
Matrix: Ground Water
Date Received: 08/21/23 16:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/24/23 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/24/23 01:45*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 128*		*08/24/23 01:45*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*08/24/23 01:45*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

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

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
310-263059-1	MW-90-18	99	95	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-128)	(80-120)
LCS 310-397531/7	Lab Control Sample	103	98	100
MB 310-397531/5	Method Blank	102	97	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

QC Sample Results

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

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

Lab Sample ID: MB 310-397531/5
Matrix: Water
Analysis Batch: 397531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	<1.00		1.00	0.180	ug/L			08/23/23 17:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*08/23/23 17:33*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 128*		*08/23/23 17:33*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/23/23 17:33*	*1*

Lab Sample ID: LCS 310-397531/7
Matrix: Water
Analysis Batch: 397531

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			20.0	21.40		ug/L		107	57 - 136		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 128*
Toluene-d8 (Surr)	*100*		*80 - 120*

QC Association Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

GC/MS VOA

Analysis Batch: 397531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-263059-1	MW-90-18	Total/NA	Ground Water	8260D	
MB 310-397531/5	Method Blank	Total/NA	Water	8260D	
LCS 310-397531/7	Lab Control Sample	Total/NA	Water	8260D	

Lab Chronicle

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

Client Sample ID: MW-90-18

Date Collected: 08/17/23 14:05
Date Received: 08/21/23 16:15

Lab Sample ID: 310-263059-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	397531	WSE8	EET CF	08/24/23 01:45

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

Method Summary

Client: SCS Engineers
Project/Site: CCASW ES 1st 2023 Braketing

Job ID: 310-263059-1
SDG: 23001

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

eurofins | Environment Testing America

310-263059 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SEC

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 8/2/23 | TIME 1615 | Received By: EM

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☒ No *If yes:* Cooler # _____ of _____

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): 0

Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): +0.1 | Corrected Temp (°C): +0.1

Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C).		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding If no, proceed with login

Additional Comments

TestAmerica

704 Enterprise Drive
Cedar Falls, Iowa 50613

319 277 2401 (phone)
515 792 7989 (fax)

SAMPLER: SCS Engineers
SITE NAME: Clinton County Sanitary Landfill (East-South)
ADDRESS:
CITY/STATE/ZIP
TELEPHONE NUMBER: Fax
SAMPLED BY (PRINT NAME): Caleb Gomez
SIGNATURE: Caleb Gomez

####

REPORT TO
NAME: Nathan Ohrt (nohrt@scsengineers com)
COMPANY NAME: SCS Engineers
PROJECT NAME: CCASW ES 1st 2023 Bracketing
PROJECT NUMBER: 23001
ADDRESS: 1690 All State Coury Suite 100
CITY/STATE/ZIP: West Des Moines IA 50265

Sample ID	# of Containers Ordered	Date Sampled	Time Sampled	# of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass (Yellow & White Label)	None (Black & White Label)	Trip Blank	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Trip Blank	Analyze For: Vinyl Chloride	Barium	Cobalt	Total Suspended Solids		Trip Blank			Trip Blank		Fax Results
MW-90-18		8/17	14:05		X			X								X						X										
MW-34								X								X						X			X							
Trip Blank								X													X						X					
																														X		

Relinquished by: Caleb Gomez Date: 8/21/23 Time: 14:00
Received by: Date: Time:
Relinquished by: Date: Time:
Shipped Via:
Received for lab by: Date: Time:
Comments:
Temperature Upon Receipt.
Shipped Via

Laboratory Comments: (1) For Appendix I and II analysis report to the reporting limits, not the detection limits. Make sure that the reporting limits are below the EPA MCLs.
(2) For analysis other than Appendix and II, report to the detection limits. Please make sure that the detection limits are below the EPA's MCLs.
(3) In the "Result" column for all EDD files, when non-detect, please report the reporting limits or the detection limits instead of indicating with "ND"

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-263059-1
SDG Number: 23001

Login Number: 263059
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Appendix B-2
Data Validation Documentation

Completed by: Nathan Ohrt
Sample Date: 3/23/2023
Lab Report Date: 5/2/2023
Site Name: Clinton Country Sanitary Landfill - East, South MSWLF unit
Project Type: 1st 2023 Natural Attenuation
Lab Report Number: 310-252106

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			None.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Nathan Ohrt
Sample Date: 3/21-23/2023
Lab Report Date: 5/2/2023
Site Name: Clinton Country Sanitary Landfill - East, South MSWLF unit
Project Type: 1st 2023 HMSP
Lab Report Number: 310-252106

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation		X		The pH for MW-24 was outside of required criteria and appropriately preserved by the laboratory.
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			None.
Trip Blank Detections	X			None.
Accuracy				
ICV/CCV		X		CCV recovered outside the control limits for multiple parameters; the associated LCS passed using CCV criteria so the data was reported.
LCS/LCSD	X			
MS/MSD		X		A preparation batch had insufficient volume to perform a MS/MSD; the LCS was performed in duplicate to provide precision data for this batch.
Surrogates (organics only)		X		Surrogate recovery for MW-33 was outside the upper control limit; the sample did not contain any target analytes so re-analysis was not performed.
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			Sample MW-40 and duplicate sample MW-DS2 had <50% relative percent difference for analyzed parameters.

Completed by: Nathan Ohrt
Sample Date: 3/21/2023
Lab Report Date: 5/2/2023
Site Name: Clinton Country Sanitary Landfill - East, South MSWLF unit
Project Type: 1st 2023 Bracketing
Lab Report Number: 310-252145

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			None.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Nathan Ohrt
Sample Date: 8/15/2023
Lab Report Date: 8/28/2023
Site Name: Clinton Country Sanitary Landfill - East, South MSWLF unit
Project Type: 2nd 2023 HMSP & Source Characterization
Lab Report Number: 310-262782

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative		X		Internal standard (ISTD) response for the following sample was outside of acceptance limits: (MB 310-397025/1-A). The ISTD failed low, causing results to be biased high. Since all associated hits are below the reporting limit, results were reported.
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			None.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD		X		A preparation batch had insufficient volume to perform a MS/MSD; the LCS was performed in duplicate to provide precision data for this batch.
Surrogates (organics only)		X		Surrogate recovery for an analytical batch was outside upper control limits; no corrective action was reported.
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Nathan Ohrt
Sample Date: 8/17-18/2023
Lab Report Date: 8/29/2023
Site Name: Clinton Country Sanitary Landfill - East, South MSWLF unit
Project Type: 2nd 2023 HMSP
Lab Report Number: 310-263057

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			None.
Trip Blank Detections			X	
Accuracy				
ICV/CCV		X		The CCV recovered outside the control limits for 2-hexanone and 4-methyl-2-pentanone (MIBK); the associated samples were non-detect for the affected analytes so the data was reported.
LCS/LCSD		X		The LCS recovered outside control limits for 2-hexanone and MIBK; the analytes were biased high in the LCS and not detected in the associated samples so the data was reported.
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	Sample MW-05-2 and duplicate sample MW-DS1 had <50% relative percent difference for analyzed parameters. Sample MW-40 and duplicate sample MW-DS2 had <50% relative percent difference for analyzed parameters.

Completed by: Nathan Ohrt
Sample Date: 8/17/2023
Lab Report Date: 8/25/2023
Site Name: Clinton Country Sanitary Landfill - East, South MSWLF unit
Project Type: 2nd 2023 Bracketing
Lab Report Number: 310-263059

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			None.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Appendix C-1

Summary of Groundwater Chemistry – Water Table

SCS ENGINEERS

Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	9/3/2009	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	< 0.006
	7/9/2011	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	< 0.006
	9/14/2011	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.006	N/A	N/A	N/A	< 0.006	< 0.006	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.006	N/A	N/A	N/A	0.00212	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.006	N/A
	3/4/2014	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	< 0.006	N/A
	10/28/2014	< 0.006	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	9/22/2015	0.00485	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001
	7/13/2016	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	3/5/2018	< 0.001	N/A	N/A	N/A	0.000309*	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.000442	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.001	N/A	N/A	0.000649*	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	5/18/2021	< 0.002	N/A	N/A	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	< 0.002	N/A
	4/26/2022	< 0.002	N/A	N/A	N/A	0.000787*	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.002	0.000752*	N/A	< 0.002	< 0.002	N/A	N/A	< 0.002	N/A	N/A
	3/21/2023	< 0.002	N/A	N/A	0.00122*	< 0.002	N/A	< 0.002	< 0.002	< 0.002	N/A
	8/15/2023	< 0.002	< 0.002	N/A	N/A	< 0.002	N/A	N/A	< 0.002	< 0.002	N/A
	8/15/2023	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	9/3/2009	0.00902	N/A	N/A	N/A	0.00216	N/A	N/A	N/A	N/A	N/A
	12/16/2009	0.00646	N/A	N/A	N/A	0.00267	N/A	N/A	N/A	N/A	N/A
	3/15/2010	0.00379	N/A	N/A	N/A	0.00211	N/A	N/A	N/A	N/A	N/A
	6/30/2010	0.00785	N/A	N/A	N/A	0.00234	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	0.00211	N/A	N/A	N/A	N/A	N/A
	9/2/2010	0.00215	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	0.00208
	7/9/2011	0.00349	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/14/2011	0.00163	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	0.00235
	9/14/2011	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.001	N/A	N/A	N/A	0.00132	< 0.003	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A
	4/4/2012	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.00435	N/A	N/A	N/A	N/A	N/A
	3/19/2013	0.00218	N/A	N/A	N/A	0.00308	N/A	N/A	N/A	N/A	N/A
	8/22/2013	0.000212	N/A	N/A	N/A	0.0061	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0299	N/A
	3/4/2014	0.00301	N/A	N/A	N/A	0.000216	N/A	0.000468	N/A	0.0352	N/A
	10/28/2014	0.00329	N/A	N/A	N/A	0.000574	N/A	0.000427	< 0.001	N/A	N/A
	4/7/2015	0.00101	N/A	N/A	N/A	0.00145	N/A	N/A	N/A	0.0396	N/A
	9/22/2015	0.0152	N/A	N/A	N/A	< 0.002	N/A	< 0.002	< 0.002	N/A	N/A
	3/29/2016	0.00169*	**0.00572**	**0.00445**	N/A	< 0.002	N/A	< 0.002	< 0.002	N/A	0.000965*
	7/13/2016	**0.00205**	N/A	N/A	N/A	0.00079*	N/A	N/A	N/A	N/A	N/A
	4/4/2017	N/A	0.000818*	< 0.002	N/A	N/A	N/A	0.000743*	0.000587*	N/A	N/A
	4/5/2017	0.000706*	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	9/19/2017	0.000662*	< 0.002	N/A	N/A	< 0.002	N/A	< 0.002	< 0.002	**0.034**	N/A
	3/5/2018	0.000593*	N/A	N/A	N/A	0.00056*	N/A	0.000623*	< 0.002	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	0.000757*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.0157	N/A	N/A	N/A	< 0.002	N/A	N/A	< 0.002	N/A	N/A
	3/19/2019	0.00151*	N/A	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	N/A	N/A
	8/27/2019	0.00159*	N/A	N/A	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A
	3/3/2020	**0.00201**	N/A	N/A	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	9/22/2020	**0.00412**	N/A	N/A	< 0.002	< 0.002	N/A	N/A	N/A	**0.0291**	N/A
	5/18/2021	**0.00725**	N/A	N/A	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A
	9/14/2021	**0.00439**	N/A	N/A	N/A	0.00078*	N/A	N/A	N/A	**0.0212**	N/A
	4/26/2022	**0.00278**	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	9/13/2022	**0.00458**	< 0.002	N/A	< 0.002	< 0.002	N/A	N/A	< 0.002	N/A	N/A
	3/21/2023	**0.00246**	N/A	N/A	0.00105*	< 0.002	N/A	< 0.002	< 0.002	**0.02**	N/A
	8/15/2023	**0.00715**	< 0.002	N/A	N/A	0.000886*	N/A	N/A	< 0.002	**0.0193**	N/A
	8/15/2023	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Barium, mg/L (CAS NO - 7440-39-3)	9/3/2009	0.261	N/A	N/A	N/A	0.133	N/A	N/A	N/A	N/A	N/A
	12/16/2009	0.265	N/A	N/A	N/A	0.221	N/A	N/A	N/A	N/A	N/A
	3/15/2010	0.244	N/A	N/A	N/A	0.179	N/A	N/A	N/A	N/A	N/A
	6/30/2010	0.269	N/A	N/A	N/A	0.212	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Barium, mg/L (CAS NO - 7440-39-3)	6/30/2010	N/A	N/A	N/A	N/A	0.212	N/A	N/A	N/A	N/A	N/A
	9/2/2010	0.159	N/A	N/A	N/A	0.142	N/A	N/A	N/A	N/A	N/A
	3/8/2011	0.269	N/A	N/A	N/A	0.148	N/A	N/A	N/A	N/A	0.122
	7/9/2011	0.194	N/A	N/A	N/A	0.191	N/A	N/A	N/A	N/A	N/A
	9/14/2011	0.174	N/A	N/A	N/A	0.171	N/A	N/A	N/A	N/A	0.0128
	9/14/2011	N/A	N/A	N/A	N/A	0.164	N/A	N/A	N/A	N/A	N/A
	3/22/2012	0.147	N/A	N/A	N/A	0.188	1.87	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	3.34	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.286	N/A	N/A	N/A	N/A	N/A
	3/19/2013	0.185	N/A	N/A	N/A	0.22	N/A	N/A	N/A	N/A	N/A
	8/22/2013	0.403	N/A	N/A	N/A	0.415	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.25	N/A
	3/4/2014	0.544	N/A	N/A	N/A	0.178	N/A	N/A	N/A	0.224	N/A
	10/28/2014	0.676	N/A	N/A	N/A	0.218	N/A	N/A	N/A	N/A	N/A
	4/7/2015	0.135	N/A	N/A	N/A	0.192	N/A	N/A	N/A	0.301	N/A
	9/22/2015	0.657	N/A	N/A	N/A	**0.186**	N/A	N/A	N/A	N/A	N/A
	3/29/2016	**0.128**	N/A	N/A	N/A	**0.145**	N/A	N/A	N/A	N/A	**0.0529**
	7/13/2016	**0.135**	N/A	N/A	N/A	**0.212**	N/A	N/A	N/A	N/A	N/A
	4/5/2017	**0.0869**	N/A	N/A	N/A	**0.162**	N/A	N/A	N/A	N/A	N/A
	9/19/2017	**0.405**	N/A	N/A	N/A	**0.169**	N/A	N/A	N/A	**0.333**	N/A
	3/5/2018	**0.38**	N/A	N/A	N/A	**0.153**	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	**0.159**	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.517	N/A	N/A	N/A	**0.177**	N/A	N/A	N/A	N/A	N/A
	3/19/2019	**0.131**	N/A	N/A	**0.234**	**0.156**	N/A	N/A	N/A	N/A	N/A
	8/27/2019	**0.12**	N/A	N/A	**0.237**	**0.148**	N/A	N/A	N/A	N/A	N/A
	3/3/2020	**0.127**	N/A	N/A	**0.202**	**0.157**	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	**0.181**	N/A	N/A	N/A	N/A	N/A
	9/22/2020	**0.171**	N/A	N/A	**0.332**	**0.155**	N/A	N/A	N/A	**0.327**	N/A
	5/18/2021	**0.363**	N/A	N/A	**0.234**	**0.183**	N/A	N/A	N/A	N/A	N/A
	9/14/2021	**0.161**	N/A	N/A	N/A	**0.19**	N/A	N/A	N/A	**0.386**	N/A
	4/26/2022	**0.138**	N/A	N/A	N/A	**0.196**	N/A	N/A	N/A	N/A	N/A
	9/13/2022	**0.168**	**0.137**	N/A	**0.183**	**0.175**	N/A	N/A	**0.142**	N/A	N/A
	3/21/2023	**0.111**	N/A	N/A	**0.283**	**0.176**	N/A	**0.106**	**0.13**	**0.455**	N/A
	8/15/2023	**0.206**	**0.128**	N/A	N/A	**0.166**	N/A	N/A	**0.14**	**0.413**	N/A
	8/15/2023	N/A	**0.123**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	9/3/2009	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.001	N/A	N/A	N/A	0.00147	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	0.001	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001
	7/9/2011	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001
	9/14/2011	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.001	N/A	N/A	N/A	< 0.001	0.00366	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	0.00323	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.00196	N/A	N/A	N/A	N/A	N/A
	12/13/2012	N/A	N/A	N/A	N/A	0.0013	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.001	N/A	N/A	N/A	0.00566	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000336	N/A
	3/4/2014	0.00234	N/A	N/A	N/A	0.00134	N/A	N/A	N/A	< 0.001	N/A
	10/28/2014	0.00264	N/A	N/A	N/A	0.00129	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.001	N/A	N/A	N/A	0.0005	N/A	N/A	N/A	< 0.001	N/A
	9/22/2015	0.00615	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001
	7/13/2016	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	3/5/2018	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.00178	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	5/18/2021	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	4/26/2022	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.001	< 0.001	N/A	< 0.001	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	3/21/2023	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	N/A
	8/15/2023	< 0.001	< 0.001	N/A	N/A	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A
	8/15/2023	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	9/3/2009	0.00191	N/A	N/A	N/A	0.00676	N/A	N/A	N/A	N/A	N/A
	12/16/2009	0.00556	N/A	N/A	N/A	0.00262	N/A	N/A	N/A	N/A	N/A
	3/15/2010	0.00174	N/A	N/A	N/A	0.00188	N/A	N/A	N/A	N/A	N/A
	6/30/2010	0.00174	N/A	N/A	N/A	0.000584	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	0.00058	N/A	N/A	N/A	N/A	N/A
	9/2/2010	0.000891	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	< 0.0005
	7/9/2011	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	9/14/2011	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	< 0.0005
	9/14/2011	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	3/22/2012	0.000576	N/A	N/A	N/A	< 0.0005	0.00197	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	0.00282	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.00186	N/A	N/A	N/A	N/A	N/A
	3/19/2013	0.00136	N/A	N/A	N/A	0.00151	N/A	N/A	N/A	N/A	N/A
	7/17/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	8/22/2013	0.00114	N/A	N/A	N/A	0.00284	N/A	N/A	N/A	N/A	N/A
	8/22/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/30/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A
	3/4/2014	0.000836	N/A	N/A	N/A	0.0023	N/A	N/A	N/A	< 0.0005	N/A
	3/4/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2014	0.0029	N/A	N/A	N/A	0.000953	N/A	N/A	N/A	N/A	N/A
	10/30/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/7/2015	0.000195	N/A	N/A	N/A	0.000982	N/A	N/A	N/A	< 0.0005	N/A
	7/28/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	0.00647	N/A	N/A	N/A	0.000292*	N/A	N/A	N/A	N/A	N/A
	9/22/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/23/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.0005	N/A	N/A	N/A	0.000159*	N/A	N/A	N/A	N/A	< 0.0005
	7/13/2016	< 0.0005	N/A	N/A	N/A	0.000097*	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/5/2017	0.000183*	N/A	N/A	N/A	0.000228*	N/A	N/A	N/A	N/A	N/A
	9/19/2017	0.000111*	N/A	N/A	N/A	0.000498*	N/A	N/A	N/A	< 0.0005	N/A
	9/19/2017	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3/5/2018	< 0.0005	N/A	N/A	N/A	0.000191*	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	0.00013*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.00101	N/A	N/A	N/A	0.000355*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	12/11/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.0005	N/A	N/A	0.000088*	0.000118*	N/A	N/A	N/A	N/A	N/A
	3/19/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3/26/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.0001	N/A	N/A	0.000054*	**0.000164**	N/A	N/A	N/A	N/A	N/A
	8/27/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.0001	N/A	N/A	0.00004*	**0.000183**	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	**0.000203**	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.0001	N/A	N/A	< 0.0001	**0.000221**	N/A	N/A	N/A	< 0.0001	N/A
	9/22/2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/18/2021	< 0.0001	N/A	N/A	< 0.0001	**0.000126**	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.0001	N/A	N/A	N/A	**0.000279**	N/A	N/A	N/A	< 0.0001	N/A
	4/26/2022	< 0.0001	N/A	N/A	N/A	**0.000199**	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.0001	< 0.0001	N/A	< 0.0001	**0.000152**	N/A	N/A	< 0.0001	N/A	N/A
	3/21/2023	**0.000137**	N/A	N/A	**0.000194**	0.000091*	N/A	< 0.0001	< 0.0001	< 0.0001	N/A
	8/15/2023	< 0.0002	< 0.0002	N/A	N/A	**0.000279**	N/A	N/A	< 0.0002	< 0.0002	N/A
	8/15/2023	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	9/3/2009	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02
	7/9/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02
	9/14/2011	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.04	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.02	N/A	N/A	N/A	0.0144	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A
	3/4/2014	0.00989	N/A	N/A	N/A	0.00216	N/A	N/A	N/A	< 0.02	N/A
	10/28/2014	0.00657	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A
	9/22/2015	0.0162	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	0.000655*
	7/13/2016	< 0.005	N/A	N/A	N/A	0.000378*	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A
	3/5/2018	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.0468	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.005	N/A	N/A	0.00319*	< 0.005	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.005	N/A	N/A	0.00437*	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.005	N/A	N/A	0.00341*	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.005	N/A	N/A	0.00217*	< 0.005	N/A	N/A	N/A	0.0016*	N/A
	5/18/2021	< 0.005	N/A	N/A	0.00193*	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.005	N/A	N/A	N/A	0.00175*	N/A	N/A	N/A	< 0.005	N/A
	4/26/2022	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.005	0.00291*	N/A	0.00245*	< 0.005	N/A	N/A	0.00301*	N/A	N/A
	3/21/2023	< 0.005	N/A	N/A	0.00254*	< 0.005	N/A	< 0.005	**0.00571**	< 0.005	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Chromium, mg/L (CAS NO - 7440-47-3)	8/15/2023	< 0.005	0.00206*	N/A	N/A	< 0.005	N/A	N/A	0.00266*	< 0.005	N/A
	8/15/2023	N/A	0.00187*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	9/3/2009	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.02	N/A	N/A	N/A	0.00318	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.00155	N/A	N/A	N/A	0.00758	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	0.00798	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.00155	N/A	N/A	N/A	< 0.00155	N/A	N/A	N/A	N/A	N/A
	3/8/2011	0.00156	N/A	N/A	N/A	< 0.00155	N/A	N/A	N/A	N/A	0.00492
	7/9/2011	< 0.00155	N/A	N/A	N/A	0.00435	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.00155	N/A	N/A	N/A	< 0.00155	N/A	N/A	N/A	N/A	< 0.00155
	9/14/2011	N/A	N/A	N/A	N/A	< 0.00155	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.00155	N/A	N/A	N/A	0.00224	0.146	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	0.0462	N/A	N/A	N/A	N/A
	4/4/2012	N/A	< 0.00155	0.00227	N/A	N/A	N/A	N/A	0.0157	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.0111	N/A	N/A	N/A	N/A	N/A
	12/13/2012	N/A	N/A	N/A	N/A	0.00874	N/A	N/A	N/A	N/A	N/A
	3/19/2013	0.00205	N/A	N/A	N/A	0.00594	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.00132	N/A	0.0038	N/A	0.033	N/A	< 0.007	0.0451	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00418	N/A
	3/4/2014	0.0123	N/A	N/A	N/A	0.00564	N/A	< 0.007	N/A	0.00295	N/A
	10/28/2014	0.029	N/A	N/A	N/A	0.00803	N/A	< 0.007	0.00735	N/A	N/A
	4/7/2015	0.000393	N/A	N/A	N/A	0.00341	N/A	N/A	N/A	0.0028	N/A
	9/21/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000128*	N/A	N/A
	9/22/2015	0.0216	N/A	N/A	N/A	0.000352*	N/A	0.000103*	0.000091*	N/A	N/A
	3/29/2016	0.000064*	**0.00713**	**0.00359**	N/A	0.000114*	N/A	0.000109*	0.000196*	N/A	0.000237*
	7/13/2016	0.000078*	N/A	N/A	N/A	0.000201*	N/A	N/A	N/A	N/A	N/A
	4/4/2017	N/A	**0.000962**	0.000128*	N/A	N/A	N/A	0.000343*	0.000155*	N/A	N/A
	4/5/2017	0.000196*	N/A	N/A	N/A	0.000104*	N/A	N/A	N/A	N/A	N/A
	9/19/2017	0.000377*	0.000106*	N/A	N/A	**0.000852**	N/A	0.000322*	0.000312*	**0.00715**	N/A
	3/5/2018	0.000098*	0.000056*	N/A	N/A	0.000108*	N/A	0.000163*	0.000168*	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	0.000099*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.0233	< 0.0005	N/A	N/A	0.000104*	N/A	N/A	0.000125*	N/A	N/A
	3/19/2019	< 0.0005	< 0.0005	< 0.0005	**0.00155**	< 0.0005	N/A	0.000157*	< 0.0005	N/A	N/A
	8/27/2019	< 0.0005	N/A	N/A	**0.002**	0.000098*	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.0005	N/A	N/A	**0.000833**	0.00023*	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	0.00028*	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.0005	N/A	N/A	0.000437*	0.000099*	N/A	N/A	N/A	**0.00698**	N/A
	5/18/2021	< 0.0005	N/A	N/A	**0.00201**	< 0.0005	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.0005	N/A	N/A	N/A	**0.00188**	N/A	N/A	N/A	0.000305*	N/A
	4/26/2022	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.0005	< 0.0005	N/A	**0.000738**	0.000208*	N/A	N/A	0.000342*	N/A	N/A
	3/21/2023	< 0.0005	N/A	N/A	0.000456*	0.000451*	N/A	< 0.0005	0.000191*	**0.000518**	N/A
	8/15/2023	< 0.0005	0.000201*	N/A	N/A	**0.000557**	N/A	N/A	0.000256*	**0.000544**	N/A
	8/15/2023	N/A	0.000181*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	9/3/2009	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.02	N/A	N/A	N/A	0.0293	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.02	N/A	N/A	N/A	0.0211	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	0.0213	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02
	7/9/2011	< 0.02	N/A	N/A	N/A	0.0327	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02
	9/14/2011	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.02	N/A	N/A	N/A	< 0.02	0.036	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	0.0945	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.0446	N/A	N/A	N/A	N/A	N/A
	12/13/2012	N/A	N/A	N/A	N/A	0.0329	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.02	N/A	N/A	N/A	0.0907	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00292	N/A
	3/4/2014	0.00453	N/A	N/A	N/A	0.0199	N/A	N/A	N/A	< 0.02	N/A
	10/28/2014	0.0158	N/A	N/A	N/A	0.0287	N/A	N/A	N/A	N/A	N/A
	4/7/2015	0.000656	N/A	N/A	N/A	0.0144	N/A	N/A	N/A	< 0.002	N/A
	9/22/2015	0.021	N/A	N/A	N/A	**0.0022**	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.005	N/A	N/A	N/A	0.00188*	N/A	N/A	N/A	N/A	0.00199*
	7/13/2016	< 0.005	N/A	N/A	N/A	0.00127*	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.005	N/A	N/A	N/A	0.00248*	N/A	N/A	N/A	< 0.005	N/A
	3/5/2018	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.052	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.005	N/A	N/A	0.00321*	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.005	N/A	N/A	0.00211*	< 0.005	N/A	N/A	N/A	0.00197*	N/A
	5/18/2021	< 0.005	N/A	N/A	0.00306*	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.005	N/A	N/A	N/A	0.00365*	N/A	N/A	N/A	< 0.005	N/A
	4/26/2022	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.005	< 0.005	N/A	0.00271*	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	3/21/2023	< 0.005	N/A	N/A	< 0.005	0.00203*	N/A	< 0.005	< 0.005	< 0.005	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Copper, mg/L (CAS NO - 7440-50-8)	8/15/2023	< 0.005	< 0.005	N/A	N/A	0.00188*	N/A	N/A	< 0.005	< 0.005	N/A
	8/15/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	9/3/2009	< 0.004	N/A	N/A	N/A	0.00487	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.004	N/A	N/A	N/A	0.0204	N/A	N/A	N/A	N/A	N/A
	3/15/2010	0.0063	N/A	N/A	N/A	0.0137	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.004	N/A	N/A	N/A	0.0169	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	0.0182	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	< 0.004
	7/9/2011	< 0.004	N/A	N/A	N/A	0.011	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	< 0.004
	9/14/2011	N/A	N/A	N/A	N/A	0.00489	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.004	N/A	N/A	N/A	0.00537	0.0504	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	0.0475	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.0431	N/A	N/A	N/A	N/A	N/A
	12/13/2012	N/A	N/A	N/A	N/A	0.0226	N/A	N/A	N/A	N/A	N/A
	3/19/2013	0.006	N/A	N/A	N/A	0.0132	N/A	N/A	N/A	N/A	N/A
	7/17/2013	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.004	N/A	N/A	N/A	0.0737	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00144	N/A
	3/4/2014	0.00976	N/A	N/A	N/A	0.0218	N/A	N/A	N/A	< 0.004	N/A
	10/28/2014	0.00505	N/A	N/A	N/A	0.026	N/A	N/A	N/A	N/A	N/A
	4/7/2015	0.000641	N/A	N/A	N/A	0.00848	N/A	N/A	N/A	< 0.0005	N/A
	9/22/2015	0.0106	N/A	N/A	N/A	**0.000678**	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	**0.000685**
	7/13/2016	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.0005	N/A	N/A	N/A	**0.0015**	N/A	N/A	N/A	0.000491*	N/A
	3/5/2018	**0.0021**	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.031	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.0005	N/A	N/A	**0.0022**	< 0.0005	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.0005	N/A	N/A	**0.00309**	< 0.0005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.0005	N/A	N/A	**0.00126**	0.00047*	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	0.000402*	N/A	N/A	N/A	N/A	N/A
	9/22/2020	0.000163*	N/A	N/A	0.000465*	< 0.0005	N/A	N/A	N/A	**0.00208**	N/A
	5/18/2021	0.000268*	N/A	N/A	**0.00216**	< 0.0005	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.0005	N/A	N/A	N/A	**0.00112**	N/A	N/A	N/A	< 0.0005	N/A
	4/26/2022	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.0005	< 0.0005	N/A	**0.00103**	< 0.0005	N/A	N/A	< 0.0005	N/A	N/A
	3/21/2023	0.000307*	N/A	N/A	**0.000618**	**0.000714**	N/A	< 0.0005	< 0.0005	< 0.0005	N/A
	8/15/2023	< 0.0005	< 0.0005	N/A	N/A	**0.000986**	N/A	N/A	< 0.0005	< 0.0005	N/A
	8/15/2023	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, mg/L (CAS NO - 7439-97-6)	8/22/2013	N/A	N/A	N/A	N/A	0.0000299	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	9/3/2009	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	< 0.05
	7/9/2011	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	< 0.05
	9/14/2011	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.05	N/A	N/A	N/A	< 0.05	< 0.1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.05	N/A	N/A	N/A	0.0803	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00649	N/A
	3/4/2014	0.0206	N/A	N/A	N/A	0.0144	N/A	N/A	N/A	0.00625	N/A
	10/28/2014	0.0591	N/A	N/A	N/A	0.0198	N/A	N/A	N/A	N/A	N/A
	4/7/2015	0.000956	N/A	N/A	N/A	0.0145	N/A	N/A	N/A	0.00612	N/A
	9/22/2015	0.124	N/A	N/A	N/A	0.00322*	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.005	N/A	N/A	N/A	**0.00608**	N/A	N/A	N/A	N/A	< 0.005
	7/13/2016	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.005	N/A	N/A	N/A	**0.00647**	N/A	N/A	N/A	N/A	N/A
	9/19/2017	0.00268*	N/A	N/A	N/A	**0.00918**	N/A	N/A	N/A	**0.00813**	N/A
	3/5/2018	< 0.005	N/A	N/A	N/A	0.00295*	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	0.00305*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.0509	N/A	N/A	N/A	**0.00845**	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.005	N/A	N/A	**0.00568**	**0.00529**	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.005	N/A	N/A	**0.00786**	**0.00715**	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.005	N/A	N/A	0.00277*	**0.0084**	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	**0.00632**	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.005	N/A	N/A	**0.00798**	**0.0114**	N/A	N/A	N/A	**0.011**	N/A
	5/18/2021	< 0.005	N/A	N/A	**0.00736**	**0.00527**	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.005	N/A	N/A	N/A	**0.00908**	N/A	N/A	N/A	0.00286*	N/A
	4/26/2022	< 0.005	N/A	N/A	N/A	**0.00804**	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.005	< 0.005	N/A	0.00284*	**0.00595**	N/A	N/A	< 0.005	N/A	N/A
	3/21/2023	< 0.005	N/A	N/A	**0.00508**	0.0036*	N/A	< 0.005	< 0.005	0.00478*	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Nickel, mg/L (CAS NO - 7440-02-0)	8/15/2023	< 0.005	< 0.005	N/A	N/A	0.0019*	N/A	N/A	< 0.005	0.00244*	N/A
	8/15/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	9/3/2009	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	< 0.005
	7/9/2011	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	< 0.005
	9/14/2011	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.005	N/A	N/A	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00309	N/A
	3/4/2014	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A
	10/28/2014	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A
	9/22/2015	0.0102	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	< 0.005
	7/13/2016	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A
	3/5/2018	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.00198	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.005	N/A	N/A	0.00116*	< 0.005	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A	N/A	< 0.005	N/A
	5/18/2021	< 0.005	N/A	N/A	< 0.005	0.000999*	N/A	N/A	N/A	N/A	N/A
	9/14/2021	0.0015*	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A
	4/26/2022	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.005	0.00292*	N/A	< 0.005	0.00174*	N/A	N/A	< 0.005	N/A	N/A
	3/21/2023	0.00161*	N/A	N/A	0.00225*	< 0.005	N/A	< 0.005	< 0.005	< 0.005	N/A
	8/15/2023	< 0.005	< 0.005	N/A	N/A	0.0026*	N/A	N/A	< 0.005	< 0.005	N/A
	8/15/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	9/3/2009	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02
	7/9/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02
	9/14/2011	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.04	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	8/22/2013	0.00786	N/A	N/A	N/A	0.00649	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A
	3/4/2014	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A
	10/28/2014	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	9/22/2015	0.00429	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001
	7/13/2016	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	0.000206*	N/A
	3/5/2018	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	0.000255*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	5/18/2021	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	4/26/2022	0.000809*	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.001	**0.00119**	N/A	< 0.001	**0.00128**	N/A	N/A	< 0.001	N/A	N/A
	3/21/2023	**0.00138**	N/A	N/A	**0.00139**	< 0.001	N/A	< 0.001	< 0.001	< 0.001	N/A
	8/15/2023	< 0.001	< 0.001	N/A	N/A	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A
	8/15/2023	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	9/3/2009	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Thallium, mg/L (CAS NO - 7440-28-0)	6/30/2010	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	< 0.002
	7/9/2011	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	< 0.002
	9/14/2011	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.002	N/A	N/A	N/A	< 0.002	< 0.002	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A
	3/4/2014	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	< 0.002	N/A
	10/28/2014	< 0.002	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.001	N/A	N/A	N/A	0.000083	N/A	N/A	N/A	< 0.001	N/A
	9/22/2015	0.00449	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.001	N/A	N/A	N/A	0.000027*	N/A	N/A	N/A	N/A	< 0.001
	7/13/2016	< 0.001	N/A	N/A	N/A	0.00004*	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	3/5/2018	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	0.000067*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.000615	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	5/18/2021	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/14/2021	0.000853*	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A
	4/26/2022	0.000265*	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.001	0.000427*	N/A	< 0.001	0.000414*	N/A	N/A	< 0.001	N/A	N/A
	3/21/2023	0.000895*	N/A	N/A	**0.0012**	< 0.001	N/A	< 0.001	< 0.001	< 0.001	N/A
	8/15/2023	< 0.001	< 0.001	N/A	N/A	**0.00186**	N/A	N/A	< 0.001	< 0.001	N/A
	8/15/2023	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tin, mg/L (CAS NO - 7440-31-5)	8/22/2013	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	9/3/2009	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	< 0.05
	7/9/2011	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	< 0.05
	9/14/2011	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.05	N/A	N/A	N/A	< 0.05	< 0.05	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	0.138	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.05	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.05	N/A	N/A	N/A	0.0574	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00474	N/A
	3/4/2014	0.037	N/A	N/A	N/A	0.00844	N/A	N/A	N/A	< 0.05	N/A
	10/28/2014	0.044	N/A	N/A	N/A	0.0159	N/A	N/A	N/A	N/A	N/A
	4/7/2015	0.00145	N/A	N/A	N/A	0.00626	N/A	N/A	N/A	< 0.005	N/A
	9/22/2015	0.0226	N/A	N/A	N/A	0.00158*	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.005	N/A	N/A	N/A	0.000681*	N/A	N/A	N/A	N/A	0.00191*
	7/13/2016	< 0.005	N/A	N/A	N/A	0.000805*	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.005	N/A	N/A	N/A	0.000952*	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.005	N/A	N/A	N/A	0.00127*	N/A	N/A	N/A	< 0.005	N/A
	3/5/2018	< 0.005	N/A	N/A	N/A	0.000898*	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	0.00092*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.0724	N/A	N/A	N/A	0.000925*	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.005	N/A	N/A	0.00367*	0.000881*	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.005	N/A	N/A	**0.00636**	< 0.005	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.005	N/A	N/A	0.00214*	0.00103*	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	0.00135*	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.005	N/A	N/A	0.00384*	< 0.005	N/A	N/A	N/A	0.00292*	N/A
	5/18/2021	0.0019*	N/A	N/A	**0.00603**	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.005	N/A	N/A	N/A	0.00338*	N/A	N/A	N/A	< 0.005	N/A
	4/26/2022	< 0.005	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.005	< 0.005	N/A	0.00352*	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	3/21/2023	< 0.005	N/A	N/A	0.00304*	0.00153*	N/A	< 0.005	0.00445*	< 0.005	N/A
	8/15/2023	< 0.005	< 0.005	N/A	N/A	0.0011*	N/A	N/A	< 0.005	< 0.005	N/A
	8/15/2023	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	9/3/2009	0.0432	N/A	N/A	N/A	0.0577	N/A	N/A	N/A	N/A	N/A
	12/16/2009	0.0527	N/A	N/A	N/A	0.0986	N/A	N/A	N/A	N/A	N/A
	3/15/2010	0.0551	N/A	N/A	N/A	0.0691	N/A	N/A	N/A	N/A	N/A
	6/30/2010	0.0299	N/A	N/A	N/A	0.0656	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	0.0655	N/A	N/A	N/A	N/A	N/A
	9/2/2010	0.0316	N/A	N/A	N/A	0.0524	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Total Metals Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Zinc, mg/L (CAS NO - 7440-66-6)	3/8/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	0.0239
	7/9/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02
	9/14/2011	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.02	N/A	N/A	N/A	< 0.02	0.171	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	0.102	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	0.0754	N/A	N/A	N/A	N/A	N/A
	12/13/2012	N/A	N/A	N/A	N/A	0.101	N/A	N/A	N/A	N/A	N/A
	3/19/2013	0.038	N/A	N/A	N/A	0.0719	N/A	N/A	N/A	N/A	N/A
	7/17/2013	N/A	N/A	N/A	N/A	0.104	N/A	N/A	N/A	N/A	N/A
	8/22/2013	0.0562	N/A	N/A	N/A	0.231	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A
	3/4/2014	0.0246	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A
	10/28/2014	0.116	N/A	N/A	N/A	0.0268	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.01	N/A	N/A	N/A	0.018	N/A	N/A	N/A	< 0.01	N/A
	9/22/2015	0.0304	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.01	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A	**0.0719**
	7/13/2016	0.00542*	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	0.0176*	N/A
	3/5/2018	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	8/7/2018	0.116	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.02	N/A	N/A	0.0126*	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	0.0108*	N/A
	5/18/2021	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A
	4/26/2022	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.02	< 0.02	N/A	< 0.02	< 0.02	N/A	N/A	< 0.02	N/A	N/A
	3/21/2023	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	N/A
	8/15/2023	< 0.02	< 0.02	N/A	N/A	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A
	8/15/2023	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	3/4/2014	1850	N/A	N/A	N/A	1000	N/A	1530	N/A	85	N/A
	10/28/2014	2290	N/A	N/A	N/A	2650	N/A	16000	3770	N/A	N/A
	4/7/2015	105	N/A	N/A	N/A	139	N/A	N/A	N/A	7	N/A
	7/28/2015	N/A	N/A	**16900**	N/A	**84.4**	N/A	**629**	N/A	N/A	N/A
	7/28/2015	N/A	N/A	**16900**	N/A	**84.4**	N/A	**629**	N/A	N/A	N/A
	9/21/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**10.9**	N/A	N/A
	9/22/2015	40	N/A	N/A	N/A	**75.4**	N/A	**28**	< 1.88	N/A	N/A
	3/29/2016	**9.5**	**58300**	**10100**	N/A	1.63*	N/A	**16.6**	**12**	N/A	**13.8**
	7/13/2016	**18.9**	N/A	N/A	N/A	**11.9**	N/A	N/A	N/A	N/A	N/A
	4/4/2017	N/A	**320**	**31.9**	N/A	N/A	N/A	**122**	< 1.88	N/A	N/A
	4/5/2017	**6.25**	N/A	N/A	N/A	**2.88**	N/A	N/A	N/A	N/A	N/A
	9/19/2017	**15.3**	**15.9**	N/A	N/A	**97.8**	N/A	**76.9**	**2.63**	**56.4**	N/A
	3/5/2018	**3.4**	1.5*	N/A	N/A	**3.13**	N/A	**24.9**	**8.5**	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	**2.75**	N/A	N/A	N/A	N/A	N/A
	8/7/2018	2370	1*	N/A	N/A	**3.63**	N/A	N/A	**7**	N/A	N/A
	3/19/2019	**13.4**	< 1.88	**8.37**	**268**	1*	N/A	**12**	< 1.88	N/A	N/A
	8/27/2019	**14**	N/A	N/A	**540**	**1.88**	N/A	N/A	N/A	N/A	N/A
	3/3/2020	**10**	N/A	N/A	**128**	**12.6**	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	**25.3**	N/A	N/A	N/A	N/A	N/A
	9/22/2020	**25.5**	N/A	N/A	**49.5**	**1.88**	N/A	N/A	N/A	**336**	N/A
	5/18/2021	**104**	N/A	N/A	**604**	**2**	N/A	N/A	N/A	N/A	N/A
	9/14/2021	**22.7**	N/A	N/A	N/A	**44.5**	N/A	N/A	N/A	**36**	N/A
	4/26/2022	**8.5**	N/A	N/A	N/A	**2.75**	N/A	N/A	N/A	N/A	N/A
	9/13/2022	**20.5**	**2.38**	N/A	**126**	1*	N/A	N/A	**2.63**	N/A	N/A
	3/21/2023	**9.87**	N/A	N/A	**29.4**	**33.3**	N/A	**4.25**	**5.12**	**35**	N/A
	8/15/2023	**37.5**	**8.88**	N/A	N/A	**15.5**	N/A	N/A	1.63*	**38**	N/A
	8/15/2023	N/A	**9.12**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1

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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.19	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	4.9	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	2.97	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	0.96*	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	3.99	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	2.17	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	1.35	< 1	0.976*	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	1.22	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	9/3/2009	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2
	7/9/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2
	9/14/2011	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 2	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A
	3/4/2014	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	10/28/2014	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	4/7/2015	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2
	7/13/2016	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	3/5/2018	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	< 2	N/A
	5/18/2021	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	4/26/2022	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 2	< 2	N/A	< 2	< 2	N/A	N/A	< 2	N/A	N/A
	3/21/2023	< 2	N/A	N/A	< 2	< 2	N/A	< 2	< 2	< 2	N/A
	8/15/2023	< 2	< 2	N/A	N/A	< 2	N/A	N/A	< 2	< 2	N/A
	8/15/2023	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	9/3/2009	< 0.498	N/A	N/A	N/A	< 0.498	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.498	N/A	N/A	N/A	< 0.498	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.498	N/A	N/A	N/A	< 0.498	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.498	N/A	N/A	N/A	< 0.498	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.498	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.498	N/A	N/A	N/A	< 0.498	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.12	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	< 0.12
	7/9/2011	< 0.12	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.12	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	< 0.12
	9/14/2011	N/A	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.12	N/A	N/A	N/A	< 0.12	< 0.12	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.12	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.12	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.12	N/A
	3/4/2014	< 0.12	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	< 0.12	N/A
	10/28/2014	< 0.12	N/A	N/A	N/A	< 0.12	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	< 0.5	N/A
	4/7/2015	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	< 0.5
	7/13/2016	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	< 0.5	N/A
	3/5/2018	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1.2	N/A	N/A	< 1.2	< 1.2	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1.2	N/A	N/A	< 1.2	< 1.2	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1.2	N/A	N/A	< 1.2	< 1.2	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1.2	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1.2	N/A	N/A	< 1.2	< 1.2	N/A	N/A	N/A	< 1.2	N/A
	5/18/2021	< 1.2	N/A	N/A	< 1.2	< 1.2	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1.2	N/A	N/A	N/A	< 1.2	N/A	N/A	N/A	< 1.2	N/A
	4/26/2022	< 1.2	N/A	N/A	N/A	< 1.2	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1.2	< 1.2	N/A	< 1.2	< 1.2	N/A	N/A	< 1.2	N/A	N/A
	3/21/2023	< 1.2	N/A	N/A	< 1.2	< 1.2	N/A	< 1.2	< 1.2	< 1.2	N/A
	8/15/2023	< 1.2	< 1.2	N/A	N/A	< 1.2	N/A	N/A	< 1.2	< 1.2	N/A
	8/15/2023	N/A	< 1.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	9/3/2009	< 0.255	N/A	N/A	N/A	< 0.255	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.255	N/A	N/A	N/A	< 0.255	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.255	N/A	N/A	N/A	< 0.255	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.255	N/A	N/A	N/A	< 0.255	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.255	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.255	N/A	N/A	N/A	< 0.255	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	< 0.13
	7/9/2011	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	< 0.13
	9/14/2011	N/A	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.13	N/A	N/A	N/A	< 0.13	< 0.13	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	8/22/2013	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.13	N/A
	3/4/2014	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	< 0.13	N/A
	10/28/2014	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	< 0.13	N/A
	4/7/2015	< 0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	< 0.13
	7/13/2016	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	< 0.13	N/A
	3/5/2018	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 0.13	N/A	N/A	N/A	< 0.13	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.34	N/A	N/A	< 0.34	< 0.34	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.34	N/A	N/A	< 0.34	< 0.34	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.34	N/A	N/A	< 0.34	< 0.34	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.34	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 0.34	N/A	N/A	< 0.34	< 0.34	N/A	N/A	N/A	< 0.34	N/A
	5/18/2021	< 0.34	N/A	N/A	< 0.34	< 0.34	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.34	N/A	N/A	N/A	< 0.34	N/A	N/A	N/A	< 0.34	N/A
	4/26/2022	< 0.34	N/A	N/A	N/A	< 0.34	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.34	< 0.34	N/A	< 0.34	< 0.34	N/A	N/A	< 0.34	N/A	N/A
	3/21/2023	< 0.34	N/A	N/A	< 0.34	< 0.34	N/A	< 0.34	< 0.34	< 0.34	N/A
	8/15/2023	< 0.34	< 0.34	N/A	N/A	< 0.34	N/A	N/A	< 0.34	< 0.34	N/A
	8/15/2023	N/A	< 0.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	4/4/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/4/2017	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Butanone, ug/L (CAS NO - 78-93-3)	9/3/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	34.4
	7/9/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	9/14/2011	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 10	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A
	3/4/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	3/5/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	< 10	N/A	N/A	< 10	< 10	N/A
	8/15/2023	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Hexanone, ug/L (CAS NO - 591-78-6)	9/3/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/9/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	9/14/2011	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 10	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A
	3/4/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
2-Hexanone, ug/L (CAS NO - 591-78-6)	9/19/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	3/5/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	< 10	N/A	N/A	< 10	< 10	N/A
	8/15/2023	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	9/3/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/9/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	9/14/2011	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 10	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A
	3/4/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	3/5/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	< 10	N/A	N/A	< 10	< 10	N/A
	8/15/2023	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acetone, ug/L (CAS NO - 67-64-1)	9/3/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	**41.7**
	7/9/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	9/14/2011	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 10	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	**13.3**	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/22/2013	3.9*	N/A	N/A	N/A	4.87*	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A
	3/4/2014	3.73*	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	2.82*	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	3.36*	N/A	N/A	N/A	2.66*	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 10	N/A	N/A	N/A	2.55*	N/A	N/A	N/A	3.75*	N/A
	3/5/2018	2.01*	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	2.38*	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Acetone, ug/L (CAS NO - 67-64-1)	3/19/2019	3.24*	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	4.8*	< 10	N/A	N/A	N/A	7.86*	N/A
	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	5.51*	N/A	N/A	5.52*	< 10	N/A
	8/15/2023	N/A	5.18*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acrylonitrile, ug/L (CAS NO - 107-13-1)	9/3/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/9/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	9/14/2011	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 10	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A
	3/4/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	3/5/2018	0.872*	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	< 10	N/A	N/A	< 10	< 10	N/A
	8/15/2023	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene, ug/L (CAS NO - 71-43-2)	9/3/2009	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	< 0.5
	7/9/2011	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	< 0.5
	9/14/2011	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 0.5	N/A	N/A	N/A	< 0.5	< 0.5	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A
	3/4/2014	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	< 0.5	N/A
	10/28/2014	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	0.119*	N/A
	4/7/2015	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	< 0.5
	7/13/2016	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	**0.981**	N/A
	3/5/2018	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Benzene, ug/L (CAS NO - 71-43-2)	9/22/2020	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	N/A	N/A	**0.519**	N/A
	5/18/2021	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	**1.37**	N/A
	4/26/2022	< 0.5	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 0.5	< 0.5	N/A	< 0.5	< 0.5	N/A	N/A	< 0.5	N/A	N/A
	3/21/2023	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	< 0.5	< 0.5	**1.82**	N/A
	8/15/2023	< 0.5	< 0.5	N/A	N/A	< 0.5	N/A	N/A	< 0.5	**1.64**	N/A
	8/15/2023	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromochloromethane, ug/L (CAS NO - 74-97-5)	9/3/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/9/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	9/14/2011	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 5	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	3/4/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/7/2015	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/13/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	3/5/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/26/2022	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	3/21/2023	< 5	N/A	N/A	< 5	< 5	N/A	< 5	< 5	< 5	N/A
	8/15/2023	< 5	< 5	N/A	N/A	< 5	N/A	N/A	< 5	< 5	N/A
	8/15/2023	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromoform, ug/L (CAS NO - 75-25-2)	9/3/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/9/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	9/14/2011	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 5	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/22/2013	0.238*	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	3/4/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/7/2015	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/13/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	3/5/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/26/2022	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	3/21/2023	< 5	N/A	N/A	< 5	< 5	N/A	< 5	< 5	< 5	N/A
	8/15/2023	< 5	< 5	N/A	N/A	< 5	N/A	N/A	< 5	< 5	N/A
	8/15/2023	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromomethane, ug/L (CAS NO - 74-83-9)	9/3/2009	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	7/9/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	9/14/2011	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 4	N/A	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A
	3/4/2014	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A
	10/28/2014	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A
	4/7/2015	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	7/13/2016	< 4	N/A	N/A	N/A	0.502*	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/19/2017	0.375*	N/A	N/A	N/A	0.435*	N/A	N/A	N/A	0.382*	N/A
	3/5/2018	< 4	N/A	N/A	N/A	0.283*	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	< 4	N/A
	5/18/2021	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A
	4/26/2022	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 4	< 4	N/A	< 4	< 4	N/A	N/A	< 4	N/A	N/A
	3/21/2023	< 4	N/A	N/A	< 4	< 4	N/A	< 4	< 4	< 4	N/A
	8/15/2023	< 4	< 4	N/A	N/A	< 4	N/A	N/A	< 4	< 4	N/A
	8/15/2023	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	0.918*	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	9/3/2009	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2
	7/9/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	9/14/2011	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 2	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A
	3/4/2014	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	10/28/2014	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	4/7/2015	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2
	7/13/2016	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	3/5/2018	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	< 2	N/A
	5/18/2021	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	4/26/2022	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 2	< 2	N/A	< 2	< 2	N/A	N/A	< 2	N/A	N/A
	3/21/2023	< 2	N/A	N/A	< 2	< 2	N/A	< 2	< 2	< 2	N/A
	8/15/2023	< 2	< 2	N/A	N/A	< 2	N/A	N/A	< 2	< 2	N/A
	8/15/2023	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene, ug/L (CAS NO - 108-90-7)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Chlorobenzene, ug/L (CAS NO - 108-90-7)	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**1.14**	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	0.956*	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	**1.08**	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	9/3/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/9/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	9/14/2011	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 5	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	3/4/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/7/2015	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/13/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	3/5/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/26/2022	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	3/21/2023	< 5	N/A	N/A	< 5	< 5	N/A	< 5	< 5	< 5	N/A
	8/15/2023	< 5	< 5	N/A	N/A	< 5	N/A	N/A	< 5	< 5	N/A
	8/15/2023	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroethane, ug/L (CAS NO - 75-00-3)	9/3/2009	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4

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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Chloroethane, ug/L (CAS NO - 75-00-3)	7/9/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	9/14/2011	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 4	N/A	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.59*	N/A
	3/4/2014	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	1.74*	N/A
	10/28/2014	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	**4.69**	N/A
	4/7/2015	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	7/13/2016	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	1.69*	N/A
	3/5/2018	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	< 4	N/A
	5/18/2021	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	2.13*	N/A
	4/26/2022	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 4	< 4	N/A	< 4	< 4	N/A	N/A	< 4	N/A	N/A
	3/21/2023	< 4	N/A	N/A	< 4	< 4	N/A	< 4	< 4	1.98*	N/A
	8/15/2023	< 4	< 4	N/A	N/A	< 4	N/A	N/A	< 4	2.11*	N/A
	8/15/2023	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform, ug/L (CAS NO - 67-66-3)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	< 3	N/A
	5/18/2021	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	4/26/2022	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 3	< 3	N/A	< 3	< 3	N/A	N/A	< 3	N/A	N/A
	3/21/2023	< 3	N/A	N/A	< 3	< 3	N/A	< 3	< 3	< 3	N/A
	8/15/2023	< 3	< 3	N/A	N/A	< 3	N/A	N/A	< 3	< 3	N/A
	8/15/2023	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloromethane, ug/L (CAS NO - 74-87-3)	9/3/2009	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3
	7/9/2011	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3
	9/14/2011	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Chloromethane, ug/L (CAS NO - 74-87-3)	3/22/2012	< 3	N/A	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A
	3/4/2014	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	10/28/2014	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	4/7/2015	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3
	7/13/2016	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	3/5/2018	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	< 3	N/A
	5/18/2021	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	4/26/2022	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 3	< 3	N/A	< 3	< 3	N/A	N/A	< 3	N/A	N/A
	3/21/2023	< 3	N/A	N/A	< 3	< 3	N/A	< 3	< 3	< 3	N/A
	8/15/2023	< 3	< 3	N/A	N/A	< 3	N/A	N/A	< 3	< 3	N/A
	8/15/2023	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**2.23**	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**3.22**	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**3.33**	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**2.47**	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	0.551*	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	**8.2**	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**4.24**	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	**1.86**	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	**1.67**	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	9/3/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/9/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	9/14/2011	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 5	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	8/22/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	3/4/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/7/2015	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/13/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	3/5/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/26/2022	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	3/21/2023	< 5	N/A	N/A	< 5	< 5	N/A	< 5	< 5	< 5	N/A
	8/15/2023	< 5	< 5	N/A	N/A	< 5	N/A	N/A	< 5	< 5	N/A
	8/15/2023	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene, ug/L (CAS NO - 100-41-4)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iodomethane, ug/L (CAS NO - 74-88-4)	9/3/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 20	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 50	N/A	N/A	N/A	< 50	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 50	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/9/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	9/14/2011	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 10	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A
	3/4/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Iodomethane, ug/L (CAS NO - 74-88-4)	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	3/5/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	< 10	N/A	N/A	< 10	< 10	N/A
	8/15/2023	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Bromide, ug/L (CAS NO - 74-95-3)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Chloride, ug/L (CAS NO - 75-09-2)	9/3/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/9/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	9/14/2011	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 5	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/22/2013	0.225*	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	3/4/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/7/2015	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 5	N/A	N/A	N/A	0.208*	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5

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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Methylene Chloride, ug/L (CAS NO - 75-09-2)	7/13/2016	0.374*	N/A	N/A	N/A	0.296*	N/A	N/A	N/A	N/A	N/A
	4/5/2017	0.191*	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	3/5/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/26/2022	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	3/21/2023	< 5	N/A	N/A	< 5	< 5	N/A	< 5	< 5	< 5	N/A
	8/15/2023	< 5	< 5	N/A	N/A	< 5	N/A	N/A	< 5	< 5	N/A
	8/15/2023	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Styrene, ug/L (CAS NO - 100-42-5)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene, ug/L (CAS NO - 108-88-3)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	0.206*	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	0.649*	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	0.507*	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	0.517*	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	0.213*	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	9/3/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/9/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	9/14/2011	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 5	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A
	3/4/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/7/2015	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5
	7/13/2016	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	3/5/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A
	4/26/2022	< 5	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5	N/A	N/A	< 5	N/A	N/A
	3/21/2023	< 5	N/A	N/A	< 5	< 5	N/A	< 5	< 5	< 5	N/A
	8/15/2023	< 5	< 5	N/A	N/A	< 5	N/A	N/A	< 5	< 5	N/A
	8/15/2023	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	9/3/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/9/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	9/14/2011	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 10	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A
	3/4/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	3/5/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	< 10	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	< 10	N/A	N/A	< 10	< 10	N/A
	8/15/2023	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethene, ug/L (CAS NO - 79-01-6)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	0.823*	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	< 1	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	< 1	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	9/3/2009	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	7/9/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	9/14/2011	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 4	N/A	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A
	3/4/2014	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A
	10/28/2014	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A
	4/7/2015	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4
	7/13/2016	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A
	3/5/2018	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	< 4	N/A
	5/18/2021	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A
	4/26/2022	< 4	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 4	< 4	N/A	< 4	< 4	N/A	N/A	< 4	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	3/21/2023	< 4	N/A	N/A	< 4	< 4	N/A	< 4	< 4	< 4	N/A
	8/15/2023	< 4	< 4	N/A	N/A	< 4	N/A	N/A	< 4	< 4	N/A
	8/15/2023	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	7/9/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2
	9/14/2011	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 2	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A
	3/4/2014	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A
	10/28/2014	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/7/2015	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10
	7/13/2016	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	3/5/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A
	4/26/2022	< 10	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10	N/A	N/A	< 10	N/A	N/A
	3/21/2023	< 10	N/A	N/A	< 10	< 10	N/A	< 10	< 10	< 10	N/A
	8/15/2023	< 10	< 10	N/A	N/A	< 10	N/A	N/A	< 10	< 10	N/A
	8/15/2023	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	9/3/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/8/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	7/9/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1
	9/14/2011	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 1	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A
	4/4/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A
	3/4/2014	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	< 1	N/A
	10/28/2014	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	0.561*	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A
	3/29/2016	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	< 1
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/4/2017	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A
	4/5/2017	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	0.95*	N/A
	3/5/2018	< 1	N/A	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 1	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	N/A
	3/19/2019	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	N/A	N/A
	8/27/2019	< 1	N/A	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/3/2020	< 1	N/A	N/A	< 1	0.225*	N/A	N/A	< 1	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 1	N/A	N/A	< 1	< 1	N/A	N/A	< 1	< 1	N/A
	5/18/2021	< 1	N/A	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	9/14/2021	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**2.02**	N/A
	4/26/2022	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1	N/A	N/A	< 1	N/A	N/A
	3/21/2023	< 1	N/A	N/A	< 1	< 1	N/A	< 1	< 1	**1.79**	N/A
	8/15/2023	< 1	< 1	N/A	N/A	< 1	N/A	N/A	< 1	**2.01**	N/A
	8/15/2023	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes, total, ug/L (CAS NO - 1330-20-7)	9/3/2009	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	12/16/2009	< 6	N/A	N/A	N/A	< 6	N/A	N/A	N/A	N/A	N/A
	3/15/2010	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	6/30/2010	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	6/30/2010	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/2/2010	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Appendix I VOC Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Xylenes, total, ug/L (CAS NO - 1330-20-7)	3/8/2011	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3
	7/9/2011	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/14/2011	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3
	9/14/2011	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/22/2012	< 3	N/A	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A
	3/22/2012	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A
	8/20/2012	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	2/11/2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A
	3/4/2014	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	10/28/2014	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	4/7/2015	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/29/2016	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3
	7/13/2016	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	4/5/2017	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/19/2017	0.26*	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	3/5/2018	0.134*	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/5/2018	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	8/7/2018	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	3/19/2019	< 3	N/A	N/A	0.472*	< 3	N/A	N/A	N/A	N/A	N/A
	8/27/2019	< 3	N/A	N/A	0.42*	< 3	N/A	N/A	N/A	N/A	N/A
	3/3/2020	< 3	N/A	N/A	0.417*	< 3	N/A	N/A	N/A	N/A	N/A
	3/3/2020	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/22/2020	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	< 3	N/A
	5/18/2021	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A
	9/14/2021	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A
	4/26/2022	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	9/13/2022	< 3	< 3	N/A	< 3	< 3	N/A	N/A	< 3	N/A	N/A
	3/21/2023	< 3	N/A	N/A	< 3	< 3	N/A	< 3	< 3	< 3	N/A
	8/15/2023	< 3	< 3	N/A	N/A	< 3	N/A	N/A	< 3	< 3	N/A
	8/15/2023	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M&P-Xylene, ug/L (CAS NO - 179601-23-1)	8/20/2012	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 2	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
O-Xylene, ug/L (CAS NO - 95-47-6)	8/20/2012	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	3/19/2013	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Other Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
1,1-Dichloropropene, ug/L (CAS NO - 563-58-6)	8/22/2013	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene, ug/L (CAS NO - 95-94-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene, ug/L (CAS NO - 120-82-1)	8/22/2013	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
1,3,5-Trinitrobenzene, ug/L (CAS NO - 99-35-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
1,3-Dichlorobenzene, ug/L (CAS NO - 541-73-1)	8/22/2013	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropane, ug/L (CAS NO - 142-28-9)	8/22/2013	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
1,4-Naphthoquinone, ug/L (CAS NO - 130-15-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
1,4-Phenylenediamine, ug/L (CAS NO - 106-50-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
1-Naphthylamine, ug/L (CAS NO - 134-32-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	8/22/2013	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol, ug/L (CAS NO - 58-90-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	8/22/2013	N/A	N/A	N/A	N/A	< 1.04	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 1.03	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1.13	N/A	N/A	N/A	N/A	N/A
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	8/22/2013	N/A	N/A	N/A	N/A	< 1.04	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 1.03	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1.13	N/A	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol, ug/L (CAS NO - 95-95-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol, ug/L (CAS NO - 88-06-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,4-D [2C], ug/L (CAS NO - 94-75-7)	8/22/2013	N/A	N/A	N/A	N/A	< 1.04	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 1.03	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1.13	N/A	N/A	N/A	N/A	N/A
2,4-Dichlorophenol, ug/L (CAS NO - 120-83-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol, ug/L (CAS NO - 105-67-9)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	8/22/2013	N/A	N/A	N/A	N/A	< 20.2	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 20.6	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 21.1	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene, ug/L (CAS NO - 121-14-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,6-Dichlorophenol, ug/L (CAS NO - 87-65-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2-Acetylaminofluorene, ug/L (CAS NO - 53-96-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2-Chloronaphthalene, ug/L (CAS NO - 91-58-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene, ug/L (CAS NO - 91-57-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2-Methylphenol, ug/L (CAS NO - 95-48-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Other Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
2-Naphthylamine, ug/L (CAS NO - 91-59-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	3/4/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A
	10/28/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2-Nitroaniline, ug/L (CAS NO - 88-74-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
2-Nitrophenol, ug/L (CAS NO - 88-75-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	8/22/2013	N/A	N/A	N/A	N/A	< 50.5	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 51.5	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
3/4-Methylphenol, ug/L (CAS NO - T-34MP)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
3-Chloropropene, ug/L (CAS NO - 107-05-1)	8/22/2013	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
3-Methylcholanthrene, ug/L (CAS NO - 56-49-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
3-Nitroaniline, ug/L (CAS NO - 99-09-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4,4`-DDD, ug/L (CAS NO - 72-54-8)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	0.00308*	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
4,4`-DDE, ug/L (CAS NO - 72-55-9)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
4,4`-DDT, ug/L (CAS NO - 50-29-3)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
4,6-Dinitro-2-methylphenol, ug/L (CAS NO - 534-52-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	3/4/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A
	10/28/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol, ug/L (CAS NO - 59-50-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4-Chloroaniline, ug/L (CAS NO - 106-47-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4-Chlorophenyl phenyl ether, ug/L (CAS NO - 7005-72-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4-Nitroaniline, ug/L (CAS NO - 100-01-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
4-Nitrophenol, ug/L (CAS NO - 100-02-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
5-Nitro-o-toluidine, ug/L (CAS NO - 99-55-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
7,12-Dimethylbenz [a] anthracene, ug/L (CAS NO - 57-97-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Acenaphthene, ug/L (CAS NO - 83-32-9)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Acenaphthylene, ug/L (CAS NO - 208-96-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Acetonitrile, ug/L (CAS NO - 75-05-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A
Acetophenone, ug/L (CAS NO - 98-86-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Other Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Acrolein, ug/L (CAS NO - 107-02-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Aldrin, ug/L (CAS NO - 309-00-2)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Anthracene, ug/L (CAS NO - 120-12-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Benzo [a] anthracene, ug/L (CAS NO - 56-55-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Benzo [a] pyrene, ug/L (CAS NO - 50-32-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Benzo [b] fluoranthene, ug/L (CAS NO - 205-99-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Benzo [g,h,i] perylene, ug/L (CAS NO - 191-24-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Benzo [k] fluoranthene, ug/L (CAS NO - 207-08-9)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Benzyl alcohol, ug/L (CAS NO - 100-51-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Alpha-BHC, ug/L (CAS NO - 319-84-6)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Beta-BHC, ug/L (CAS NO - 319-85-7)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Delta-BHC, ug/L (CAS NO - 319-86-8)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Gamma-BHC [Lindane], ug/L (CAS NO - 58-89-9)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Bis[2-chloroethyl]ether, ug/L (CAS NO - 111-44-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Bis[2-chloroisopropyl]ether, ug/L (CAS NO - 108-60-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Bis[2-ethylhexyl]phthalate, ug/L (CAS NO - 117-81-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	0.767*	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Butyl benzyl phthalate, ug/L (CAS NO - 85-68-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Chlordane, ug/L (CAS NO - 57-74-9)	8/22/2013	N/A	N/A	N/A	N/A	< 2.02	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 2.02	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 2.27	N/A	N/A	N/A	N/A	N/A
Chlorobenzilate, ug/L (CAS NO - 510-15-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Chloroprene, ug/L (CAS NO - 126-99-8)	8/22/2013	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Chrysene, ug/L (CAS NO - 218-01-9)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Cyanide, mg/L (CAS NO - 57-12-5)	8/22/2013	N/A	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.01	N/A	N/A	N/A	N/A	N/A
Diallate [cis or trans], ug/L (CAS NO - 2303-16-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Dibenz [a,h] anthracene, ug/L (CAS NO - 53-70-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Dibenzofuran, ug/L (CAS NO - 132-64-9)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Dichlorodifluoromethane, ug/L (CAS NO - 75-71-8)	8/22/2013	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
Dieldrin, ug/L (CAS NO - 60-57-1)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Other Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Diethyl phthalate, ug/L (CAS NO - 84-66-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Dimethoate, ug/L (CAS NO - 60-51-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Dimethyl phthalate, ug/L (CAS NO - 131-11-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Dimethylaminoazobenzene, ug/L (CAS NO - 60-11-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Di-n-butyl phthalate, ug/L (CAS NO - 84-74-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	8/22/2013	N/A	N/A	N/A	N/A	< 20.2	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 20.6	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 21.1	N/A	N/A	N/A	N/A	N/A
Dinoseb, ug/L (CAS NO - 88-85-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Diphenylamine, ug/L (CAS NO - 122-39-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Disulfoton, ug/L (CAS NO - 298-04-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Endosulfan I, ug/L (CAS NO - 959-98-8)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Endosulfan II, ug/L (CAS NO - 33213-65-9)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	0.00216*	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Endosulfan sulfate, ug/L (CAS NO - 1031-07-8)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Endrin, ug/L (CAS NO - 72-20-8)	8/22/2013	N/A	N/A	N/A	N/A	0.00256*	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	0.00204*	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Endrin aldehyde, ug/L (CAS NO - 7421-93-4)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Ethyl Methacrylate, ug/L (CAS NO - 97-63-2)	8/22/2013	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
Ethyl Methanesulfonate, ug/L (CAS NO - 62-50-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Famphur, ug/L (CAS NO - 52-85-7)	8/22/2013	N/A	N/A	N/A	N/A	< 20.2	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 20.6	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Fluoranthene, ug/L (CAS NO - 206-44-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Fluorene, ug/L (CAS NO - 86-73-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Heptachlor, ug/L (CAS NO - 76-44-8)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Heptachlor Epoxide, ug/L (CAS NO - 1024-57-3)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Hexachlorobenzene, ug/L (CAS NO - 118-74-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Hexachlorobutadiene, ug/L (CAS NO - 87-68-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Hexachlorocyclopentadiene, ug/L (CAS NO - 77-47-4)	8/22/2013	N/A	N/A	N/A	N/A	< 20.2	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 20.6	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Hexachloroethane, ug/L (CAS NO - 67-72-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Hexachloropropene, ug/L (CAS NO - 1888-71-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Indeno [1,2,3-cd] pyrene, ug/L (CAS NO - 193-39-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Isobutanol, mg/L (CAS NO - 78-83-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P

Other Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
Isodrin, ug/L (CAS NO - 465-73-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Isophorone, ug/L (CAS NO - 78-59-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Isosafrole, ug/L (CAS NO - 120-58-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Kepone, ug/L (CAS NO - 143-50-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Methacrylonitrile, ug/L (CAS NO - 126-98-7)	8/22/2013	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Methapyrilene, ug/L (CAS NO - 91-80-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Methoxychlor, ug/L (CAS NO - 72-43-5)	8/22/2013	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.0364	N/A	N/A	N/A	N/A	N/A
Methyl Methacrylate, ug/L (CAS NO - 80-62-6)	8/22/2013	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
Methyl Methanesulfonate, ug/L (CAS NO - 66-27-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	3/4/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A
	10/28/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Naphthalene, ug/L (CAS NO - 91-20-3)	8/22/2013	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	4.19*	N/A	N/A	N/A	N/A	N/A
Nitrobenzene, ug/L (CAS NO - 98-95-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosodiethylamine, ug/L (CAS NO - 55-18-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosodimethylamine, ug/L (CAS NO - 62-75-9)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	3/4/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A
	10/28/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosodi-n-butylamine, ug/L (CAS NO - 924-16-3)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosodi-n-propylamine, ug/L (CAS NO - 621-64-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosodiphenylamine, ug/L (CAS NO - 86-30-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosomethylethylamine, ug/L (CAS NO - 10595-95-6)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	3/4/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A
	10/28/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosopiperidine, ug/L (CAS NO - 100-75-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
N-Nitrosopyrrolidine, ug/L (CAS NO - 930-55-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	3/4/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A
	10/28/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
O,O,O-Triethyl Phosphorothioate, ug/L (CAS NO - 126-68-1)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
O-Toluidine, ug/L (CAS NO - 95-53-4)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Parathion-Ethyl, ug/L (CAS NO - 56-38-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
PCB-1016, ug/L (CAS NO - 12674-11-2)	8/22/2013	N/A	N/A	N/A	N/A	< 0.808	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.909	N/A	N/A	N/A	N/A	N/A
PCB-1221, ug/L (CAS NO - 11104-28-2)	8/22/2013	N/A	N/A	N/A	N/A	< 0.808	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.909	N/A	N/A	N/A	N/A	N/A

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Other Constituents	Sample Date	MW-06-7R UPG	MW-05-2 DNG	MW-05-3 DNG	MW-05-8R DNG	MW-19 DNG	MW-25 DNG	MW-28 DNG	MW-29 DNG	GU-1 DNG	UD-2 DNG
PCB-1232, ug/L (CAS NO - 11141-16-5)	8/22/2013	N/A	N/A	N/A	N/A	< 0.808	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.909	N/A	N/A	N/A	N/A	N/A
PCB-1242, ug/L (CAS NO - 53469-21-9)	8/22/2013	N/A	N/A	N/A	N/A	< 0.808	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.909	N/A	N/A	N/A	N/A	N/A
PCB-1248, ug/L (CAS NO - 12672-29-6)	8/22/2013	N/A	N/A	N/A	N/A	< 0.808	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.909	N/A	N/A	N/A	N/A	N/A
PCB-1254, ug/L (CAS NO - 11097-69-1)	8/22/2013	N/A	N/A	N/A	N/A	< 0.808	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.909	N/A	N/A	N/A	N/A	N/A
PCB-1260, ug/L (CAS NO - 11096-82-5)	8/22/2013	N/A	N/A	N/A	N/A	< 0.808	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 0.909	N/A	N/A	N/A	N/A	N/A
Pentachlorobenzene, ug/L (CAS NO - 608-93-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Pentachloronitrobenzene, ug/L (CAS NO - 82-68-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol [2C], ug/L (CAS NO - 87-86-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Phenacetin, ug/L (CAS NO - 62-44-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Phenanthrene, ug/L (CAS NO - 85-01-8)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Phenol, ug/L (CAS NO - 108-95-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	9/19/2017	< 19.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Phorate, ug/L (CAS NO - 298-02-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Pronamide, ug/L (CAS NO - 23950-58-5)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Propionitrile, ug/L (CAS NO - 107-12-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Pyrene, ug/L (CAS NO - 129-00-0)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Safrole, ug/L (CAS NO - 94-59-7)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Sulfide, mg/L (CAS NO - 18496-25-8)	3/19/2013	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	8/22/2013	< 1	N/A	< 1	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	3/4/2014	0.274*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2014	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/7/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9/22/2015	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/13/2016	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Thionazin, ug/L (CAS NO - 297-97-2)	8/22/2013	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 10.3	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 10.5	N/A	N/A	N/A	N/A	N/A
Toxaphene, ug/L (CAS NO - 8001-35-2)	8/22/2013	N/A	N/A	N/A	N/A	< 2.02	N/A	N/A	N/A	N/A	N/A
	7/13/2016	N/A	N/A	N/A	N/A	< 2.02	N/A	N/A	N/A	N/A	N/A
	5/18/2021	N/A	N/A	N/A	N/A	< 2.27	N/A	N/A	N/A	N/A	N/A

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

Denotes Detection.

Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix C-2

Summary of Groundwater Chemistry – Bedrock

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bedrock

Total Metals Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	12/11/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/3/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/18/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/14/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/26/2022	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/13/2022	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/21/2023	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/21/2023	N/A	N/A	< 0.002	N/A	N/A
	8/15/2023	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/15/2023	N/A	N/A	< 0.002	N/A	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	12/11/2018	**0.00722**	**0.0031**	< 0.002	**0.00262**	< 0.002
	3/26/2019	**0.00448**	< 0.002	< 0.002	**0.00233**	< 0.002
	8/27/2019	**0.00953**	**0.00284**	< 0.002	**0.00274**	< 0.002
	3/3/2020	**0.00791**	< 0.002	< 0.002	**0.00254**	< 0.002
	9/22/2020	**0.00574**	< 0.002	< 0.002	**0.00237**	< 0.002
	5/18/2021	**0.0056**	< 0.002	< 0.002	**0.00264**	< 0.002
	9/14/2021	**0.00562**	< 0.002	< 0.002	**0.00226**	< 0.002
	4/26/2022	**0.00552**	< 0.002	< 0.002	**0.00239**	< 0.002
	9/13/2022	**0.00562**	< 0.002	< 0.002	**0.00266**	< 0.002
	3/21/2023	**0.00669**	< 0.002	< 0.002	**0.00272**	< 0.002
	3/21/2023	N/A	N/A	< 0.002	N/A	N/A
	8/15/2023	**0.00556**	0.000547*	< 0.002	**0.00234**	< 0.002
	8/15/2023	N/A	N/A	< 0.002	N/A	N/A
Barium, mg/L (CAS NO - 7440-39-3)	12/11/2018	**0.411**	**0.688**	**0.0175**	**0.167**	**0.185**
	3/26/2019	**0.312**	**0.327**	**0.015**	**0.155**	**0.16**
	8/27/2019	**0.444**	**0.703**	**0.017**	**0.164**	**0.187**
	3/3/2020	**0.411**	**0.359**	**0.0176**	**0.17**	**0.138**
	9/22/2020	**0.342**	**0.329**	**0.0144**	**0.158**	**0.175**
	5/18/2021	**0.36**	**0.318**	**0.0155**	**0.171**	**0.158**
	9/14/2021	**0.371**	**0.347**	**0.0167**	**0.161**	**0.178**
	4/26/2022	**0.36**	**0.381**	**0.0154**	**0.165**	**0.176**
	9/13/2022	**0.353**	**0.358**	**0.016**	**0.176**	**0.188**
	3/21/2023	**0.35**	**0.354**	**0.0169**	**0.167**	**0.123**
	3/21/2023	N/A	N/A	**0.0166**	N/A	N/A
	8/15/2023	**0.333**	**0.35**	**0.0153**	**0.168**	**0.167**
	8/15/2023	N/A	N/A	**0.0146**	N/A	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	12/11/2018	0.000613*	**0.00154**	< 0.001	< 0.001	< 0.001
	3/26/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	0.000813*	**0.00208**	< 0.001	< 0.001	< 0.001
	3/3/2020	0.000323*	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/18/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/14/2021	0.000272*	< 0.001	< 0.001	< 0.001	< 0.001
	4/26/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/13/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/21/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/21/2023	N/A	N/A	< 0.001	N/A	N/A
	8/15/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/15/2023	N/A	N/A	< 0.001	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	12/11/2018	0.000116*	**0.000585**	< 0.0005	< 0.0005	< 0.0005
	3/26/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	8/27/2019	**0.000194**	**0.000648**	< 0.0001	0.000048*	< 0.0001

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bedrock

Total Metals Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	3/3/2020	0.000087*	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/22/2020	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	5/18/2021	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/14/2021	0.000056*	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	4/26/2022	< 0.0001	0.000082*	< 0.0001	0.00006*	< 0.0001
	9/13/2022	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	3/21/2023	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	3/21/2023	N/A	N/A	< 0.0001	N/A	N/A
	8/15/2023	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	8/15/2023	N/A	N/A	< 0.0002	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	12/11/2018	**0.0148**	**0.00833**	0.000832*	0.000912*	0.00167*
	3/26/2019	0.00217*	0.00098*	< 0.005	< 0.005	< 0.005
	8/27/2019	**0.022**	**0.00782**	< 0.005	0.0043*	< 0.005
	3/3/2020	**0.00833**	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	0.00171*	0.00153*	< 0.005	< 0.005	< 0.005
	5/18/2021	0.00124*	< 0.005	< 0.005	< 0.005	< 0.005
	9/14/2021	**0.00694**	0.00438*	< 0.005	< 0.005	< 0.005
	4/26/2022	0.00247*	0.00291*	< 0.005	< 0.005	< 0.005
	9/13/2022	0.00196*	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	0.00218*	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	N/A	N/A	< 0.005	N/A	N/A
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/15/2023	N/A	N/A	< 0.005	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	12/11/2018	**0.00434**	**0.00808**	0.000125*	0.000481*	0.00027*
	3/26/2019	**0.00058**	0.0004*	< 0.0005	0.00032*	< 0.0005
	8/27/2019	**0.00533**	**0.0102**	< 0.0005	0.000356*	0.000331*
	3/3/2020	**0.00233**	0.000338*	< 0.0005	0.000376*	0.000095*
	9/22/2020	**0.000515**	0.000468*	< 0.0005	0.000358*	0.000101*
	5/18/2021	0.000432*	0.000299*	< 0.0005	0.000457*	0.000112*
	9/14/2021	**0.00175**	**0.00075**	< 0.0005	0.000412*	< 0.0005
	4/26/2022	**0.00102**	**0.00374**	< 0.0005	**0.00051**	< 0.0005
	9/13/2022	**0.000573**	**0.00389**	< 0.0005	0.00048*	< 0.0005
	3/21/2023	**0.000629**	**0.00364**	< 0.0005	0.00041*	< 0.0005
	3/21/2023	N/A	N/A	< 0.0005	N/A	N/A
	8/15/2023	0.000425*	**0.0029**	< 0.0005	0.000436*	< 0.0005
	8/15/2023	N/A	N/A	< 0.0005	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	12/11/2018	< 0.005	**0.0135**	< 0.005	< 0.005	< 0.005
	3/26/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/27/2019	0.00305*	**0.00651**	< 0.005	< 0.005	< 0.005
	3/3/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/18/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/14/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/26/2022	< 0.005	0.00316*	< 0.005	< 0.005	< 0.005
	9/13/2022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	N/A	N/A	< 0.005	N/A	N/A
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/15/2023	N/A	N/A	< 0.005	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	12/11/2018	**0.00492**	**0.0149**	< 0.0005	**0.000869**	**0.000892**
	3/26/2019	**0.000797**	**0.000717**	< 0.0005	< 0.0005	< 0.0005
	8/27/2019	**0.00849**	**0.0176**	< 0.0005	< 0.0005	**0.00115**
	3/3/2020	**0.00359**	**0.000658**	< 0.0005	< 0.0005	< 0.0005
	9/22/2020	**0.000641**	0.000499*	< 0.0005	0.000199*	0.000241*
	5/18/2021	0.000479*	0.000374*	< 0.0005	< 0.0005	< 0.0005

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Total Metals Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Lead, mg/L (CAS NO - 7439-92-1)	9/14/2021	**0.00235**	**0.000718**	< 0.0005	0.000231*	< 0.0005
	4/26/2022	**0.00121**	**0.00282**	< 0.0005	**0.000838**	< 0.0005
	9/13/2022	**0.000594**	0.000314*	< 0.0005	0.000424*	< 0.0005
	3/21/2023	**0.000719**	0.000338*	< 0.0005	< 0.0005	< 0.0005
	3/21/2023	N/A	N/A	< 0.0005	N/A	N/A
	8/15/2023	0.000338*	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	8/15/2023	N/A	N/A	< 0.0005	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	12/11/2018	**0.0107**	**0.0227**	< 0.005	< 0.005	0.00169*
	3/26/2019	0.00201*	< 0.005	< 0.005	< 0.005	< 0.005
	8/27/2019	**0.0184**	**0.0192**	< 0.005	< 0.005	< 0.005
	3/3/2020	**0.00728**	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/18/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/14/2021	0.00383*	0.00194*	< 0.005	< 0.005	< 0.005
	4/26/2022	< 0.005	0.00203*	< 0.005	< 0.005	< 0.005
	9/13/2022	0.00215*	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	0.00269*	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	N/A	N/A	< 0.005	N/A	N/A
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/15/2023	N/A	N/A	< 0.005	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	12/11/2018	< 0.005	0.00106*	< 0.005	< 0.005	0.00143*
	3/26/2019	< 0.005	< 0.005	< 0.005	< 0.005	0.00177*
	8/27/2019	< 0.005	0.00209*	< 0.005	< 0.005	0.00161*
	3/3/2020	< 0.005	< 0.005	< 0.005	< 0.005	0.00127*
	9/22/2020	< 0.005	< 0.005	< 0.005	< 0.005	0.00173*
	5/18/2021	< 0.005	< 0.005	< 0.005	< 0.005	0.00264*
	9/14/2021	< 0.005	< 0.005	< 0.005	< 0.005	0.00142*
	4/26/2022	< 0.005	< 0.005	< 0.005	< 0.005	0.00115*
	9/13/2022	< 0.005	< 0.005	< 0.005	< 0.005	0.0018*
	3/21/2023	< 0.005	< 0.005	< 0.005	< 0.005	0.00139*
	3/21/2023	N/A	N/A	< 0.005	N/A	N/A
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	0.00157*
	8/15/2023	N/A	N/A	< 0.005	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	12/11/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/3/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/18/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/14/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/26/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/13/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/21/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/21/2023	N/A	N/A	< 0.001	N/A	N/A
	8/15/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/15/2023	N/A	N/A	< 0.001	N/A	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	12/11/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/3/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/18/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/14/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/26/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/13/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

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Total Metals Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Thallium, mg/L (CAS NO - 7440-28-0)	3/21/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/21/2023	N/A	N/A	< 0.001	N/A	N/A
	8/15/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/15/2023	N/A	N/A	< 0.001	N/A	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	12/11/2018	**0.0105**	**0.0268**	< 0.005	< 0.005	0.000636*
	3/26/2019	0.00125*	0.00134*	< 0.005	< 0.005	< 0.005
	8/27/2019	**0.0158**	**0.0314**	< 0.005	< 0.005	< 0.005
	3/3/2020	0.00478*	0.000863*	< 0.005	< 0.005	< 0.005
	9/22/2020	0.000917*	0.00136*	< 0.005	< 0.005	< 0.005
	5/18/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/14/2021	0.00465*	0.00258*	< 0.005	< 0.005	< 0.005
	4/26/2022	0.00159*	0.00359*	< 0.005	< 0.005	< 0.005
	9/13/2022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	0.00118*	< 0.005	< 0.005	< 0.005	< 0.005
	3/21/2023	N/A	N/A	< 0.005	N/A	N/A
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/15/2023	N/A	N/A	< 0.005	N/A	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	12/11/2018	**0.0342**	**0.0462**	< 0.02	< 0.02	< 0.02
	3/26/2019	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/27/2019	**0.0685**	**0.0755**	< 0.02	< 0.02	< 0.02
	3/3/2020	**0.0213**	< 0.02	< 0.02	< 0.02	< 0.02
	9/22/2020	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/18/2021	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/14/2021	0.0172*	< 0.02	< 0.02	< 0.02	< 0.02
	4/26/2022	< 0.02	0.0119*	< 0.02	< 0.02	< 0.02
	9/13/2022	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/21/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/21/2023	N/A	N/A	< 0.02	N/A	N/A
	8/15/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/15/2023	N/A	N/A	0.00644*	N/A	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	12/11/2018	**677**	**2580**	**42.4**	**152**	**254**
	3/26/2019	**107**	**41.2**	**8.63**	**6**	**33.4**
	8/27/2019	**1200**	**2440**	**5.75**	**12.9**	**116**
	3/3/2020	**468**	**68**	**6.75**	**19.8**	**18.2**
	9/22/2020	**107**	**45.3**	**4.38**	**15**	**30.4**
	5/18/2021	**52.5**	**42.2**	**3.63**	**5.75**	**8.75**
	9/14/2021	**348**	**30.5**	**3.38**	**13.9**	**6.38**
	4/26/2022	**161**	**123**	**4.88**	**75.8**	**3.5**
	9/13/2022	**89**	**21.3**	**2.88**	**27**	**14.4**
	3/21/2023	**124**	**23.5**	**6.63**	**12.8**	**55.1**
	3/21/2023	N/A	N/A	**6.25**	N/A	N/A
	8/15/2023	**42.5**	**13.8**	**5.5**	**14.3**	**20.9**
	8/15/2023	N/A	N/A	**2.88**	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	12/11/2018	< 2	< 2	< 2	< 2	< 2
	3/26/2019	< 2	< 2	< 2	< 2	< 2
	8/27/2019	< 2	< 2	< 2	< 2	< 2
	3/3/2020	< 2	< 2	< 2	< 2	< 2
	9/22/2020	< 2	< 2	< 2	< 2	< 2
	5/18/2021	< 2	< 2	< 2	< 2	< 2
	9/14/2021	< 2	< 2	< 2	< 2	< 2
	4/26/2022	< 2	< 2	< 2	< 2	< 2
	9/13/2022	< 2	< 2	< 2	< 2	< 2
	3/21/2023	< 2	< 2	< 2	< 2	< 2
	3/21/2023	N/A	N/A	< 2	N/A	N/A
	8/15/2023	< 2	< 2	< 2	< 2	< 2
	8/15/2023	N/A	N/A	< 2	N/A	N/A
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	12/11/2018	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	3/26/2019	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	8/27/2019	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	3/3/2020	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	9/22/2020	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	5/18/2021	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	9/14/2021	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	4/26/2022	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	9/13/2022	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	3/21/2023	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	3/21/2023	N/A	N/A	< 1.2	N/A	N/A
	8/15/2023	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	8/15/2023	N/A	N/A	< 1.2	N/A	N/A
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	12/11/2018	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	3/26/2019	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	8/27/2019	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	3/3/2020	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	9/22/2020	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	5/18/2021	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	9/14/2021	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	4/26/2022	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	9/13/2022	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	3/21/2023	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	3/21/2023	N/A	N/A	< 0.34	N/A	N/A
	8/15/2023	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	8/15/2023	N/A	N/A	< 0.34	N/A	N/A
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
2-Butanone, ug/L (CAS NO - 78-93-3)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A
	8/15/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A
2-Hexanone, ug/L (CAS NO - 591-78-6)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A
	8/15/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A
	8/15/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A
Acetone, ug/L (CAS NO - 67-64-1)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	3.56*
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	4.18*	4.27*	< 10
	9/14/2021	< 10	< 10	< 10	3.52*	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Acetone, ug/L (CAS NO - 67-64-1)	8/15/2023	< 10	< 10	< 10	4.28*	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A
Acrylonitrile, ug/L (CAS NO - 107-13-1)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A
	8/15/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A
Benzene, ug/L (CAS NO - 71-43-2)	12/11/2018	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	3/26/2019	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	8/27/2019	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	3/3/2020	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	9/22/2020	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/18/2021	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	9/14/2021	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/26/2022	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	9/13/2022	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	3/21/2023	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	3/21/2023	N/A	N/A	< 0.5	N/A	N/A
	8/15/2023	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	8/15/2023	N/A	N/A	< 0.5	N/A	N/A
Bromochloromethane, ug/L (CAS NO - 74-97-5)	12/11/2018	< 5	< 5	< 5	< 5	< 5
	3/26/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	9/13/2022	< 5	< 5	< 5	< 5	< 5
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	3/21/2023	N/A	N/A	< 5	N/A	N/A
	8/15/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	N/A	N/A	< 5	N/A	N/A
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Bromoform, ug/L (CAS NO - 75-25-2)	12/11/2018	< 5	< 5	< 5	< 5	< 5
	3/26/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	9/13/2022	< 5	< 5	< 5	< 5	< 5
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	3/21/2023	N/A	N/A	< 5	N/A	N/A
	8/15/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	N/A	N/A	< 5	N/A	N/A
Bromomethane, ug/L (CAS NO - 74-83-9)	12/11/2018	< 4	< 4	< 4	< 4	< 4
	3/26/2019	< 4	< 4	< 4	< 4	< 4
	8/27/2019	< 4	< 4	< 4	< 4	< 4
	3/3/2020	< 4	< 4	< 4	< 4	< 4
	9/22/2020	< 4	< 4	< 4	< 4	< 4
	5/18/2021	< 4	< 4	< 4	< 4	< 4
	9/14/2021	< 4	< 4	< 4	< 4	< 4
	4/26/2022	< 4	< 4	< 4	< 4	< 4
	9/13/2022	< 4	< 4	< 4	< 4	< 4
	3/21/2023	< 4	< 4	< 4	< 4	< 4
	3/21/2023	N/A	N/A	< 4	N/A	N/A
	8/15/2023	< 4	< 4	< 4	< 4	< 4
	8/15/2023	N/A	N/A	< 4	N/A	N/A
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	**1.46**	< 1	< 1	< 1	< 1
	8/27/2019	0.732*	< 1	< 1	< 1	< 1
	3/3/2020	0.486*	0.622*	< 1	0.629*	< 1
	9/22/2020	< 1	0.48*	< 1	0.721*	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	12/11/2018	< 2	< 2	< 2	< 2	< 2
	3/26/2019	< 2	< 2	< 2	< 2	< 2
	8/27/2019	< 2	< 2	< 2	< 2	< 2
	3/3/2020	< 2	< 2	< 2	< 2	< 2
	9/22/2020	< 2	< 2	< 2	< 2	< 2
	5/18/2021	< 2	< 2	< 2	< 2	< 2
	9/14/2021	< 2	< 2	< 2	< 2	< 2
	4/26/2022	< 2	< 2	< 2	< 2	< 2
	9/13/2022	< 2	< 2	< 2	< 2	< 2
	3/21/2023	< 2	< 2	< 2	< 2	< 2
	3/21/2023	N/A	N/A	< 2	N/A	N/A
	8/15/2023	< 2	< 2	< 2	< 2	< 2
	8/15/2023	N/A	N/A	< 2	N/A	N/A
Chlorobenzene, ug/L (CAS NO - 108-90-7)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Chlorobenzene, ug/L (CAS NO - 108-90-7)	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	12/11/2018	< 5	< 5	< 5	< 5	< 5
	3/26/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	9/13/2022	< 5	< 5	< 5	< 5	< 5
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	3/21/2023	N/A	N/A	< 5	N/A	N/A
	8/15/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	N/A	N/A	< 5	N/A	N/A
Chloroethane, ug/L (CAS NO - 75-00-3)	12/11/2018	< 4	< 4	< 4	< 4	< 4
	3/26/2019	< 4	< 4	< 4	< 4	< 4
	8/27/2019	< 4	< 4	< 4	< 4	< 4
	3/3/2020	< 4	< 4	< 4	< 4	< 4
	9/22/2020	< 4	< 4	< 4	< 4	< 4
	5/18/2021	< 4	< 4	< 4	< 4	< 4
	9/14/2021	< 4	< 4	< 4	< 4	< 4
	4/26/2022	< 4	< 4	< 4	< 4	< 4
	9/13/2022	< 4	< 4	< 4	< 4	< 4
	3/21/2023	< 4	< 4	< 4	< 4	< 4
	3/21/2023	N/A	N/A	< 4	N/A	N/A
	8/15/2023	< 4	< 4	< 4	< 4	< 4
	8/15/2023	N/A	N/A	< 4	N/A	N/A
Chloroform, ug/L (CAS NO - 67-66-3)	12/11/2018	< 3	< 3	< 3	< 3	< 3
	3/26/2019	< 3	< 3	< 3	< 3	< 3
	8/27/2019	< 3	< 3	< 3	< 3	< 3
	3/3/2020	< 3	< 3	< 3	< 3	< 3
	9/22/2020	< 3	< 3	< 3	< 3	< 3
	5/18/2021	< 3	< 3	< 3	< 3	< 3
	9/14/2021	< 3	< 3	< 3	< 3	< 3
	4/26/2022	< 3	< 3	< 3	< 3	< 3
	9/13/2022	< 3	< 3	< 3	< 3	< 3
	3/21/2023	< 3	< 3	< 3	< 3	< 3
	3/21/2023	N/A	N/A	< 3	N/A	N/A
	8/15/2023	< 3	< 3	< 3	< 3	< 3
	8/15/2023	N/A	N/A	< 3	N/A	N/A
Chloromethane, ug/L (CAS NO - 74-87-3)	12/11/2018	< 3	< 3	< 3	< 3	< 3
	3/26/2019	< 3	< 3	< 3	< 3	< 3
	8/27/2019	< 3	< 3	< 3	< 3	< 3
	3/3/2020	< 3	< 3	< 3	< 3	< 3
	9/22/2020	< 3	< 3	< 3	< 3	< 3
	5/18/2021	< 3	< 3	< 3	< 3	< 3

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bedrock

Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Chloromethane, ug/L (CAS NO - 74-87-3)	9/14/2021	< 3	< 3	< 3	< 3	< 3
	4/26/2022	< 3	< 3	< 3	< 3	< 3
	9/13/2022	< 3	< 3	< 3	< 3	< 3
	3/21/2023	< 3	< 3	< 3	< 3	< 3
	3/21/2023	N/A	N/A	< 3	N/A	N/A
	8/15/2023	< 3	< 3	< 3	< 3	< 3
	8/15/2023	N/A	N/A	< 3	N/A	N/A
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	12/11/2018	< 5	< 5	< 5	< 5	< 5
	3/26/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	9/13/2022	< 5	< 5	< 5	< 5	< 5
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	3/21/2023	N/A	N/A	< 5	N/A	N/A
	8/15/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	N/A	N/A	< 5	N/A	N/A
Ethylbenzene, ug/L (CAS NO - 100-41-4)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Iodomethane, ug/L (CAS NO - 74-88-4)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bedrock

Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Iodomethane, ug/L (CAS NO - 74-88-4)	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A
	8/15/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A
Methylene Bromide, ug/L (CAS NO - 74-95-3)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Methylene Chloride, ug/L (CAS NO - 75-09-2)	12/11/2018	< 5	< 5	< 5	< 5	< 5
	3/26/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	9/13/2022	< 5	< 5	< 5	< 5	< 5
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	3/21/2023	N/A	N/A	< 5	N/A	N/A
	8/15/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	N/A	N/A	< 5	N/A	N/A
Styrene, ug/L (CAS NO - 100-42-5)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bedrock

Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Toluene, ug/L (CAS NO - 108-88-3)	12/11/2018	0.597*	**1.56**	0.787*	0.68*	0.431*
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	0.594*	0.492*	0.479*	0.688*	< 1
	3/3/2020	0.669*	0.506*	0.493*	0.819*	0.566*
	9/22/2020	0.637*	0.565*	< 1	< 1	0.564*
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	0.73*	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	12/11/2018	< 5	< 5	< 5	< 5	< 5
	3/26/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	9/13/2022	< 5	< 5	< 5	< 5	< 5
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	3/21/2023	N/A	N/A	< 5	N/A	N/A
	8/15/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	N/A	N/A	< 5	N/A	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A
	8/15/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bedrock

Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Trichloroethene, ug/L (CAS NO - 79-01-6)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	12/11/2018	< 4	< 4	< 4	< 4	< 4
	3/26/2019	< 4	< 4	< 4	< 4	< 4
	8/27/2019	< 4	< 4	< 4	< 4	< 4
	3/3/2020	< 4	< 4	< 4	< 4	< 4
	9/22/2020	< 4	< 4	< 4	< 4	< 4
	5/18/2021	< 4	< 4	< 4	< 4	< 4
	9/14/2021	< 4	< 4	< 4	< 4	< 4
	4/26/2022	< 4	< 4	< 4	< 4	< 4
	9/13/2022	< 4	< 4	< 4	< 4	< 4
	3/21/2023	< 4	< 4	< 4	< 4	< 4
	3/21/2023	N/A	N/A	< 4	N/A	N/A
	8/15/2023	< 4	< 4	< 4	< 4	< 4
	8/15/2023	N/A	N/A	< 4	N/A	N/A
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	12/11/2018	< 10	< 10	< 10	< 10	< 10
	3/26/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	9/13/2022	< 10	< 10	< 10	< 10	< 10
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	3/21/2023	N/A	N/A	< 10	N/A	N/A
	8/15/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	N/A	N/A	< 10	N/A	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	12/11/2018	< 1	< 1	< 1	< 1	< 1
	3/26/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	9/13/2022	< 1	< 1	< 1	< 1	< 1
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	3/21/2023	N/A	N/A	< 1	N/A	N/A
	8/15/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	N/A	N/A	< 1	N/A	N/A
Xylenes, total, ug/L (CAS NO - 1330-20-7)	12/11/2018	0.487*	1.03*	0.597*	< 3	< 3
	3/26/2019	< 3	< 3	< 3	< 3	< 3
	8/27/2019	< 3	< 3	< 3	< 3	< 3

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bedrock

Appendix I VOC Constituents	Sample Date	MW-43BG UPG	MW-39 DNG	MW-40 DNG	MW-41 DNG	MW-42 DNG
Xylenes, total, ug/L (CAS NO - 1330-20-7)	3/3/2020	0.732*	0.696*	0.457*	1.41*	0.593*
	9/22/2020	0.459*	< 3	< 3	< 3	< 3
	5/18/2021	< 3	< 3	< 3	< 3	< 3
	9/14/2021	1.24*	< 3	< 3	< 3	< 3
	4/26/2022	0.47*	< 3	< 3	< 3	< 3
	9/13/2022	< 3	< 3	< 3	< 3	< 3
	3/21/2023	< 3	< 3	< 3	< 3	< 3
	3/21/2023	N/A	N/A	< 3	N/A	N/A
	8/15/2023	< 3	< 3	< 3	< 3	< 3
	8/15/2023	N/A	N/A	< 3	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix C-3

Summary of Groundwater Chemistry – Source and Natural Attenuation

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Source

Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	7/31/2009	N/A	N/A	N/A	N/A	< 0.006
	9/3/2009	< 0.006	< 0.006	N/A	N/A	< 0.006
	12/16/2009	< 0.006	< 0.006	N/A	N/A	< 0.006
	12/16/2009	N/A	N/A	N/A	N/A	< 0.006
	3/15/2010	< 0.006	< 0.006	N/A	N/A	< 0.006
	3/15/2010	N/A	N/A	N/A	N/A	< 0.006
	6/30/2010	< 0.006	< 0.006	N/A	N/A	< 0.006
	6/30/2010	N/A	N/A	N/A	N/A	< 0.006
	9/2/2010	< 0.006	0.00608	N/A	N/A	< 0.006
	3/8/2011	< 0.006	< 0.006	N/A	N/A	< 0.006
	9/14/2011	< 0.006	< 0.006	N/A	N/A	< 0.006
	3/22/2012	< 0.006	< 0.006	N/A	N/A	< 0.006
	8/20/2012	< 0.006	< 0.006	N/A	N/A	< 0.006
	3/19/2013	< 0.006	< 0.006	N/A	N/A	< 0.006
	7/17/2013	N/A	N/A	< 0.006	< 0.006	N/A
	8/22/2013	< 0.006	< 0.006	0.00159	< 0.006	0.00189
	8/22/2013	N/A	N/A	0.00111	N/A	N/A
	10/30/2013	N/A	N/A	< 0.006	< 0.006	N/A
	2/11/2014	N/A	N/A	< 0.006	< 0.006	N/A
	3/4/2014	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
	3/4/2014	N/A	N/A	N/A	< 0.006	N/A
	10/28/2014	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
	4/7/2015	< 0.003	< 0.001	< 0.001	< 0.001	< 0.001
	7/28/2015	N/A	N/A	< 0.005	< 0.001	N/A
	9/22/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2015	N/A	N/A	N/A	< 0.001	N/A
	3/29/2016	< 0.001	< 0.001	< 0.001	0.000255*	< 0.001
	7/13/2016	< 0.001	< 0.001	< 0.001	0.000415*	< 0.001
	7/13/2016	N/A	N/A	N/A	N/A	< 0.001
	4/5/2017	< 0.001	< 0.001	< 0.001	0.000452*	< 0.001
	9/19/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/19/2017	N/A	< 0.001	N/A	N/A	N/A
	3/5/2018	< 0.001	< 0.001	< 0.001	0.000269*	< 0.001
	8/7/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/7/2018	N/A	N/A	N/A	N/A	< 0.001
	3/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/19/2019	N/A	N/A	< 0.001	N/A	N/A
	8/27/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	N/A	N/A	N/A	N/A	< 0.001
	3/3/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	N/A	N/A	N/A	N/A
	5/18/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	5/18/2021	< 0.002	N/A	N/A	N/A	N/A
	9/14/2021	< 0.008	< 0.002	< 0.002	< 0.002	< 0.002
	4/26/2022	< 0.008	< 0.002	< 0.002	< 0.002	< 0.002
	4/26/2022	N/A	N/A	< 0.002	N/A	N/A
	9/13/2022	< 0.002	< 0.002	N/A	< 0.002	< 0.002
	9/13/2022	N/A	N/A	N/A	< 0.002	N/A
	3/21/2023	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/15/2023	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Arsenic, mg/L (CAS NO - 7440-38-2)	7/31/2009	N/A	N/A	N/A	N/A	0.0152
	9/3/2009	0.00294	0.0118	N/A	N/A	0.029
	12/16/2009	0.00415	0.00901	N/A	N/A	0.0318
	12/16/2009	N/A	N/A	N/A	N/A	0.036

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Arsenic, mg/L (CAS NO - 7440-38-2)	3/15/2010	0.00491	0.00628	N/A	N/A	0.0246
	3/15/2010	N/A	N/A	N/A	N/A	0.0241
	6/30/2010	0.00455	0.00649	N/A	N/A	0.0519
	6/30/2010	N/A	N/A	N/A	N/A	0.0519
	9/2/2010	0.00261	0.00334	N/A	N/A	0.011
	3/8/2011	0.00854	0.00652	N/A	N/A	0.00123
	9/14/2011	< 0.001	0.00247	N/A	N/A	0.0434
	3/22/2012	0.00971	0.0085	N/A	N/A	0.0295
	8/20/2012	0.00169	0.00983	N/A	N/A	0.082
	3/19/2013	0.005	0.00652	N/A	N/A	0.0782
	7/17/2013	N/A	N/A	0.0295	0.00227	N/A
	8/22/2013	0.00276	0.0152	0.0243	0.00679	0.101
	8/22/2013	N/A	N/A	0.0181	N/A	N/A
	10/30/2013	N/A	N/A	0.0263	0.00673	N/A
	2/11/2014	N/A	N/A	0.0209	0.00274	N/A
	3/4/2014	0.000509	0.00255	0.00388	0.001	0.0319
	3/4/2014	N/A	N/A	N/A	< 0.002	N/A
	10/28/2014	0.00218	0.00455	0.0158	0.00902	0.0475
	4/7/2015	0.00553	0.00465	0.014	0.00359	0.0189
	7/28/2015	N/A	N/A	**0.0249**	**0.0139**	N/A
	9/22/2015	**0.0196**	**0.00762**	**0.0254**	**0.0143**	**0.0583**
	9/22/2015	N/A	N/A	N/A	**0.0167**	N/A
	3/29/2016	**0.021**	**0.00635**	**0.0263**	0.00135*	**0.0202**
	7/13/2016	**0.0305**	**0.00575**	**0.0244**	**0.00384**	**0.0588**
	7/13/2016	N/A	N/A	N/A	N/A	**0.0701**
	4/5/2017	**0.02**	**0.00606**	**0.0271**	**0.00312**	**0.0163**
	9/19/2017	**0.0075**	**0.0067**	**0.00856**	**0.0114**	**0.0902**
	9/19/2017	N/A	**0.00694**	N/A	N/A	N/A
	3/5/2018	**0.0102**	**0.00581**	**0.0215**	**0.0109**	**0.0161**
	8/7/2018	**0.0125**	**0.0067**	**0.0142**	**0.00604**	**0.0441**
	8/7/2018	N/A	N/A	N/A	N/A	**0.0457**
	3/19/2019	**0.0347**	**0.00671**	**0.012**	**0.0146**	**0.017**
	3/19/2019	N/A	N/A	**0.0117**	N/A	N/A
	8/27/2019	**0.00931**	**0.00727**	**0.00776**	**0.00947**	**0.0399**
	8/27/2019	N/A	N/A	N/A	N/A	**0.0426**
	3/3/2020	**0.0302**	**0.00738**	**0.0251**	**0.0175**	**0.00855**
	9/22/2020	**0.0309**	**0.00698**	**0.0078**	**0.00931**	**0.0478**
	9/22/2020	**0.0253**	N/A	N/A	N/A	N/A
	5/18/2021	**0.0304**	**0.0061**	**0.00931**	**0.00661**	**0.0138**
	5/18/2021	**0.0225**	N/A	N/A	N/A	N/A
	9/14/2021	**0.0162**	**0.00621**	**0.00512**	**0.00956**	**0.0331**
	4/26/2022	**0.0294**	**0.00602**	**0.0112**	**0.0129**	**0.0116**
	4/26/2022	N/A	N/A	**0.0101**	N/A	N/A
	9/13/2022	**0.0232**	**0.00758**	N/A	**0.00858**	**0.0246**
	9/13/2022	N/A	N/A	N/A	**0.00728**	N/A
	3/21/2023	**0.0316**	**0.007**	**0.0177**	**0.00619**	**0.0124**
	8/15/2023	**0.0234**	**0.0066**	**0.0103**	**0.0175**	**0.0257**
Barium, mg/L (CAS NO - 7440-39-3)	7/31/2009	N/A	N/A	N/A	N/A	0.464
	9/3/2009	0.134	0.513	N/A	N/A	0.416
	12/16/2009	1.06	0.634	N/A	N/A	0.439
	12/16/2009	N/A	N/A	N/A	N/A	0.465
	3/15/2010	0.726	0.618	N/A	N/A	0.431
	3/15/2010	N/A	N/A	N/A	N/A	0.405
	6/30/2010	0.513	0.562	N/A	N/A	0.413
	6/30/2010	N/A	N/A	N/A	N/A	0.413

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Barium, mg/L (CAS NO - 7440-39-3)	9/2/2010	0.336	0.481	N/A	N/A	0.401
	3/8/2011	0.703	0.657	N/A	N/A	0.258
	9/14/2011	0.655	0.563	N/A	N/A	0.418
	3/22/2012	0.69	0.629	N/A	N/A	0.353
	8/20/2012	0.429	0.509	N/A	N/A	0.383
	3/19/2013	0.827	0.577	N/A	N/A	0.26
	7/17/2013	N/A	N/A	1.03	0.375	N/A
	8/22/2013	1.89	1.97	0.722	1.02	1.56
	8/22/2013	N/A	N/A	0.492	N/A	N/A
	10/30/2013	N/A	N/A	1.96	1.05	N/A
	2/11/2014	N/A	N/A	1.03	0.638	N/A
	3/4/2014	1.14	0.651	0.399	0.413	0.378
	3/4/2014	N/A	N/A	N/A	0.406	N/A
	10/28/2014	1.93	0.675	0.382	0.401	0.469
	4/7/2015	1.62	0.522	0.33	0.355	0.433
	7/28/2015	N/A	N/A	**0.167**	**0.298**	N/A
	9/22/2015	**1.77**	**0.603**	**0.181**	**0.306**	**0.439**
	9/22/2015	N/A	N/A	N/A	**0.306**	N/A
	3/29/2016	**1.51**	**0.498**	**0.164**	**0.115**	**0.338**
	7/13/2016	**1.81**	**0.492**	**0.161**	**0.246**	**0.391**
	7/13/2016	N/A	N/A	N/A	N/A	**0.372**
	4/5/2017	**1.75**	**0.501**	**0.186**	**0.245**	**0.355**
	9/19/2017	**1.67**	**0.578**	**0.315**	**0.174**	**0.466**
	9/19/2017	N/A	**0.58**	N/A	N/A	N/A
	3/5/2018	**2.03**	**0.639**	**0.219**	**0.169**	**0.342**
	8/7/2018	**2.38**	**0.556**	**0.246**	**0.152**	**0.429**
	8/7/2018	N/A	N/A	N/A	N/A	**0.442**
	3/19/2019	**2.29**	**0.52**	**0.257**	**0.211**	**0.316**
	3/19/2019	N/A	N/A	**0.245**	N/A	N/A
	8/27/2019	**1.92**	**0.494**	**0.246**	**0.214**	**0.446**
	8/27/2019	N/A	N/A	N/A	N/A	**0.437**
	3/3/2020	**2.46**	**0.58**	**0.239**	**0.166**	**0.277**
	9/22/2020	**2.17**	**0.527**	**0.264**	**0.227**	**0.422**
	9/22/2020	**2.09**	N/A	N/A	N/A	N/A
	5/18/2021	**2.03**	**0.509**	**0.275**	**0.185**	**0.361**
	5/18/2021	**2.31**	N/A	N/A	N/A	N/A
	9/14/2021	**2.3**	**0.521**	**0.165**	**0.201**	**0.433**
	4/26/2022	**2.62**	**0.525**	**0.138**	**0.257**	**0.429**
	4/26/2022	N/A	N/A	**0.139**	N/A	N/A
	9/13/2022	**2.28**	**0.506**	N/A	**0.188**	**0.437**
	9/13/2022	N/A	N/A	N/A	**0.213**	N/A
	3/21/2023	**2.36**	**0.527**	**0.13**	**0.145**	**0.359**
	8/15/2023	**2.33**	**0.508**	**0.153**	**0.14**	**0.438**
Beryllium, mg/L (CAS NO - 7440-41-7)	7/31/2009	N/A	N/A	N/A	N/A	< 0.001
	9/3/2009	< 0.001	< 0.001	N/A	N/A	< 0.001
	12/16/2009	0.00508	< 0.001	N/A	N/A	< 0.001
	12/16/2009	N/A	N/A	N/A	N/A	< 0.001
	3/15/2010	0.00218	< 0.001	N/A	N/A	< 0.001
	3/15/2010	N/A	N/A	N/A	N/A	< 0.001
	6/30/2010	0.00188	< 0.001	N/A	N/A	< 0.001
	6/30/2010	N/A	N/A	N/A	N/A	< 0.001
	9/2/2010	0.00159	< 0.001	N/A	N/A	< 0.001
	3/8/2011	< 0.001	0.00163	N/A	N/A	< 0.001
	9/14/2011	0.00144	< 0.001	N/A	N/A	< 0.001
	3/22/2012	< 0.001	< 0.001	N/A	N/A	< 0.001

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Beryllium, mg/L (CAS NO - 7440-41-7)	8/20/2012	< 0.001	< 0.001	N/A	N/A	< 0.001
	3/19/2013	< 0.001	< 0.001	N/A	N/A	< 0.001
	7/17/2013	N/A	N/A	0.00608	0.00311	N/A
	8/22/2013	0.00514	0.00633	0.00254	0.00434	0.00528
	8/22/2013	N/A	N/A	0.00349	N/A	N/A
	10/30/2013	N/A	N/A	0.0074	0.0053	N/A
	2/11/2014	N/A	N/A	0.00576	0.00384	N/A
	3/4/2014	0.00159	0.00177	0.00112	0.00157	0.000248
	3/4/2014	N/A	N/A	N/A	0.00183	N/A
	10/28/2014	0.00147	0.00115	0.00112	0.00133	< 0.001
	4/7/2015	< 0.003	< 0.001	0.000357	0.000487	< 0.001
	7/28/2015	N/A	N/A	< 0.005	0.000055*	N/A
	9/22/2015	< 0.001	0.000084*	< 0.001	< 0.001	< 0.001
	9/22/2015	N/A	N/A	N/A	< 0.001	N/A
	3/29/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/13/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/13/2016	N/A	N/A	N/A	N/A	< 0.001
	4/5/2017	< 0.001	< 0.001	< 0.001	0.000128*	< 0.001
	9/19/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/19/2017	N/A	< 0.001	N/A	N/A	N/A
	3/5/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/7/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/7/2018	N/A	N/A	N/A	N/A	< 0.001
	3/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/19/2019	N/A	N/A	< 0.001	N/A	N/A
	8/27/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	N/A	N/A	N/A	N/A	< 0.001
	3/3/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	0.000621*	< 0.001	< 0.001
	9/22/2020	< 0.001	N/A	N/A	N/A	N/A
	5/18/2021	< 0.001	< 0.001	0.000889*	< 0.001	< 0.001
	5/18/2021	< 0.001	N/A	N/A	N/A	N/A
	9/14/2021	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
	4/26/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/26/2022	N/A	N/A	< 0.001	N/A	N/A
	9/13/2022	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	9/13/2022	N/A	N/A	N/A	< 0.001	N/A
	3/21/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/15/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium, mg/L (CAS NO - 7440-43-9)	7/31/2009	N/A	N/A	N/A	N/A	0.000559
	9/3/2009	0.000776	0.00436	N/A	N/A	0.00664
	12/16/2009	0.00268	0.00268	N/A	N/A	0.00161
	12/16/2009	N/A	N/A	N/A	N/A	0.00256
	3/15/2010	0.00218	< 0.0005	N/A	N/A	< 0.0005
	3/15/2010	N/A	N/A	N/A	N/A	0.00183
	6/30/2010	0.00234	< 0.0005	N/A	N/A	< 0.0005
	6/30/2010	N/A	N/A	N/A	N/A	< 0.0005
	9/2/2010	0.00243	< 0.0005	N/A	N/A	0.00155
	3/8/2011	0.00137	< 0.0005	N/A	N/A	< 0.0005
	9/14/2011	0.0062	0.00137	N/A	N/A	0.000721
	3/22/2012	0.00569	< 0.0005	N/A	N/A	0.000671
	8/20/2012	0.00666	< 0.0005	N/A	N/A	0.00121
	3/19/2013	0.0217	< 0.0005	N/A	N/A	0.00374
	7/17/2013	N/A	N/A	0.00124	0.000546	N/A

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	8/22/2013	0.00918	0.00226	0.0013	0.00212	0.005
	8/22/2013	N/A	N/A	0.00122	N/A	N/A
	10/30/2013	N/A	N/A	0.0018	0.00235	N/A
	2/11/2014	N/A	N/A	0.00183	0.00275	N/A
	3/4/2014	0.0111	0.000668	0.000779	0.00328	0.000455
	3/4/2014	N/A	N/A	N/A	0.00198	N/A
	10/28/2014	0.0127	0.00101	0.000664	0.000885	0.000915
	4/7/2015	0.00134	0.000134	0.000231	0.000516	0.000118
	7/28/2015	N/A	N/A	< 0.0025	< 0.0005	N/A
	9/22/2015	0.000148*	< 0.0005	0.00014*	0.00044*	< 0.0005
	9/22/2015	N/A	N/A	N/A	< 0.0005	N/A
	3/29/2016	0.000083*	< 0.0005	< 0.0005	0.00007*	< 0.0005
	7/13/2016	0.000083*	< 0.0005	< 0.0005	0.000045*	< 0.0005
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0005
	4/5/2017	0.000061*	< 0.0005	< 0.0005	0.000144*	< 0.0005
	9/19/2017	0.000076*	0.000478*	0.000045*	0.000187*	0.000139*
	9/19/2017	N/A	0.00017*	N/A	N/A	N/A
	3/5/2018	0.000124*	0.000063*	< 0.0005	< 0.0005	< 0.0005
	8/7/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	8/7/2018	N/A	N/A	N/A	N/A	< 0.0005
	3/19/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	3/19/2019	N/A	N/A	< 0.0005	N/A	N/A
	8/27/2019	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	8/27/2019	N/A	N/A	N/A	N/A	< 0.0001
	3/3/2020	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.000064*
	9/22/2020	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	9/22/2020	< 0.0001	N/A	N/A	N/A	N/A
	5/18/2021	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	5/18/2021	< 0.0001	N/A	N/A	N/A	N/A
	9/14/2021	< 0.0004	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	4/26/2022	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	4/26/2022	N/A	N/A	< 0.0001	N/A	N/A
	9/13/2022	< 0.0001	< 0.0001	N/A	< 0.0001	< 0.0001
	9/13/2022	N/A	N/A	N/A	0.000061*	N/A
	3/21/2023	**0.000108**	< 0.0001	< 0.0001	< 0.0001	0.000068*
	8/15/2023	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.000145*
Chromium, mg/L (CAS NO - 7440-47-3)	7/31/2009	N/A	N/A	N/A	N/A	< 0.02
	9/3/2009	< 0.02	< 0.02	N/A	N/A	< 0.02
	12/16/2009	< 0.02	< 0.02	N/A	N/A	< 0.02
	12/16/2009	N/A	N/A	N/A	N/A	< 0.02
	3/15/2010	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/15/2010	N/A	N/A	N/A	N/A	< 0.02
	6/30/2010	< 0.02	< 0.02	N/A	N/A	< 0.02
	6/30/2010	N/A	N/A	N/A	N/A	< 0.02
	9/2/2010	0.0235	< 0.02	N/A	N/A	< 0.02
	3/8/2011	< 0.02	< 0.02	N/A	N/A	< 0.02
	9/14/2011	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/22/2012	0.0222	< 0.02	N/A	N/A	< 0.02
	8/20/2012	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/19/2013	< 0.02	< 0.02	N/A	N/A	< 0.02
	7/17/2013	N/A	N/A	< 0.02	< 0.02	N/A
	8/22/2013	0.00696	0.0128	0.0105	0.004	0.0149
	8/22/2013	N/A	N/A	0.0054	N/A	N/A
	10/30/2013	N/A	N/A	0.00656	0.0093	N/A
	2/11/2014	N/A	N/A	< 0.02	< 0.02	N/A

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Chromium, mg/L (CAS NO - 7440-47-3)	3/4/2014	0.00734	0.00423	0.00359	0.00426	< 0.02
	3/4/2014	N/A	N/A	N/A	0.00367	N/A
	10/28/2014	< 0.02	0.00561	0.00504	0.00492	< 0.02
	4/7/2015	< 0.015	< 0.005	0.00201	0.00211	< 0.005
	7/28/2015	N/A	N/A	< 0.025	< 0.005	N/A
	9/22/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2015	N/A	N/A	N/A	< 0.005	N/A
	3/29/2016	< 0.005	< 0.005	< 0.005	0.000387*	< 0.005
	7/13/2016	0.000418*	< 0.005	< 0.005	0.000676*	< 0.005
	7/13/2016	N/A	N/A	N/A	N/A	< 0.005
	4/5/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/19/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/19/2017	N/A	< 0.005	N/A	N/A	N/A
	3/5/2018	< 0.005	0.000773*	< 0.005	< 0.005	< 0.005
	8/7/2018	< 0.005	< 0.005	< 0.005	0.00107*	< 0.005
	8/7/2018	N/A	N/A	N/A	N/A	< 0.005
	3/19/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/19/2019	N/A	N/A	< 0.005	N/A	N/A
	8/27/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/27/2019	N/A	N/A	N/A	N/A	< 0.005
	3/3/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	< 0.005	0.00114*	< 0.005	0.00129*	< 0.005
	9/22/2020	< 0.005	N/A	N/A	N/A	N/A
	5/18/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/18/2021	< 0.005	N/A	N/A	N/A	N/A
	9/14/2021	< 0.02	< 0.005	< 0.005	< 0.005	< 0.005
	4/26/2022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/26/2022	N/A	N/A	< 0.005	N/A	N/A
	9/13/2022	< 0.005	< 0.005	N/A	< 0.005	< 0.005
	9/13/2022	N/A	N/A	N/A	< 0.005	N/A
	3/21/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cobalt, mg/L (CAS NO - 7440-48-4)	7/31/2009	N/A	N/A	N/A	N/A	< 0.02
	9/3/2009	< 0.02	< 0.02	N/A	N/A	< 0.02
	12/16/2009	0.036	< 0.02	N/A	N/A	< 0.02
	12/16/2009	N/A	N/A	N/A	N/A	< 0.02
	3/15/2010	0.0415	0.00527	N/A	N/A	0.00538
	3/15/2010	N/A	N/A	N/A	N/A	0.00667
	6/30/2010	0.019	0.00289	N/A	N/A	0.00663
	6/30/2010	N/A	N/A	N/A	N/A	0.00663
	9/2/2010	0.011	< 0.00155	N/A	N/A	< 0.00155
	3/8/2011	0.0285	0.011	N/A	N/A	0.00447
	9/14/2011	0.0162	< 0.00155	N/A	N/A	0.00584
	3/22/2012	0.0296	0.00576	N/A	N/A	0.0107
	8/20/2012	0.0134	< 0.00155	N/A	N/A	0.00493
	3/19/2013	0.0449	0.00797	N/A	N/A	0.00876
	7/17/2013	N/A	N/A	0.0302	0.0112	N/A
	8/22/2013	0.0622	0.0396	0.0197	0.0347	0.054
	8/22/2013	N/A	N/A	0.0157	N/A	N/A
	10/30/2013	N/A	N/A	0.0549	0.036	N/A
	2/11/2014	N/A	N/A	0.0225	0.0125	N/A
	3/4/2014	0.0471	0.0129	0.0123	0.00626	0.00455
	3/4/2014	N/A	N/A	N/A	0.00757	N/A
	10/28/2014	0.0614	0.0137	0.0124	0.00872	0.00728
	4/7/2015	0.0289	0.00362	0.00758	0.00888	0.00541

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Cobalt, mg/L (CAS NO - 7440-48-4)	7/28/2015	N/A	N/A	0.00125*	0.0146	N/A
	9/22/2015	0.0204	0.00168	0.00127	0.0165	0.00447
	9/22/2015	N/A	N/A	N/A	0.0183	N/A
	3/29/2016	0.0178	0.00182	0.00116	0.00054	0.00455
	7/13/2016	0.0172	0.000953	0.000968	0.000779	0.00405
	7/13/2016	N/A	N/A	N/A	N/A	0.00383
	4/5/2017	0.0218	0.0012	0.00135	0.00947	0.00449
	9/19/2017	0.019	0.00245	0.0127	0.00539	0.00339
	9/19/2017	N/A	0.00226	N/A	N/A	N/A
	3/5/2018	0.0235	0.00299	0.00346	0.0146	0.00341
	8/7/2018	0.0325	0.00479	0.0111	0.00581	0.00291
	8/7/2018	N/A	N/A	N/A	N/A	0.00296
	3/19/2019	0.028	0.00116	0.0233	0.0217	0.00364
	3/19/2019	N/A	N/A	0.0282	N/A	N/A
	8/27/2019	0.0223	0.00179	0.0151	0.00978	0.00436
	8/27/2019	N/A	N/A	N/A	N/A	0.00394
	3/3/2020	0.0268	0.00154	0.0334	0.0178	0.00223
	9/22/2020	0.0239	0.00102	0.0185	0.0275	0.00339
	9/22/2020	0.0242	N/A	N/A	N/A	N/A
	5/18/2021	0.0275	0.0012	0.0211	0.0118	0.00315
	5/18/2021	0.0272	N/A	N/A	N/A	N/A
	9/14/2021	0.0334	0.00407	0.0229	0.0121	0.00286
	4/26/2022	0.0294	0.00165	0.0157	0.0255	0.00304
	4/26/2022	N/A	N/A	0.016	N/A	N/A
	9/13/2022	0.0333	0.0012	N/A	0.0156	0.00444
	9/13/2022	N/A	N/A	N/A	0.0137	N/A
	3/21/2023	0.0253	0.00139	0.0115	0.0168	0.00135
	8/15/2023	0.0297	0.00278	0.0175	0.0133	0.00423
Copper, mg/L (CAS NO - 7440-50-8)	7/31/2009	N/A	N/A	N/A	N/A	< 0.02
	9/3/2009	< 0.02	< 0.02	N/A	N/A	< 0.02
	12/16/2009	0.0488	< 0.02	N/A	N/A	< 0.02
	12/16/2009	N/A	N/A	N/A	N/A	< 0.02
	3/15/2010	0.0285	< 0.02	N/A	N/A	< 0.02
	3/15/2010	N/A	N/A	N/A	N/A	< 0.02
	6/30/2010	0.0469	< 0.02	N/A	N/A	< 0.02
	6/30/2010	N/A	N/A	N/A	N/A	< 0.02
	9/2/2010	0.0589	< 0.02	N/A	N/A	< 0.02
	3/8/2011	0.0233	< 0.02	N/A	N/A	< 0.02
	9/14/2011	0.0542	< 0.02	N/A	N/A	< 0.02
	3/22/2012	0.0806	< 0.02	N/A	N/A	< 0.02
	8/20/2012	0.0494	< 0.02	N/A	N/A	< 0.02
	3/19/2013	0.0459	< 0.02	N/A	N/A	< 0.02
	7/17/2013	N/A	N/A	0.0428	< 0.02	N/A
	8/22/2013	0.0588	0.0055	0.0561	0.00907	0.00583
	8/22/2013	N/A	N/A	0.0368	N/A	N/A
	10/30/2013	N/A	N/A	0.0162	0.00718	N/A
	2/11/2014	N/A	N/A	0.0288	0.00336	N/A
	3/4/2014	0.0425	0.00316	0.0158	0.0121	0.0045
	3/4/2014	N/A	N/A	N/A	0.012	N/A
	5/21/2014	N/A	N/A	0.0169	N/A	N/A
	10/28/2014	0.0421	0.0111	0.0304	< 0.02	0.0149
	4/7/2015	0.0253	0.000511	0.014	0.0109	< 0.002
	7/28/2015	N/A	N/A	< 0.01	0.00143*	N/A
	9/22/2015	0.0012*	0.000945*	< 0.002	0.00187*	< 0.002
	9/22/2015	N/A	N/A	N/A	0.00247	N/A

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Copper, mg/L (CAS NO - 7440-50-8)	3/29/2016	< 0.005	< 0.005	< 0.005	0.00343*	< 0.005
	7/13/2016	< 0.005	< 0.005	< 0.005	0.00378*	< 0.005
	7/13/2016	N/A	N/A	N/A	N/A	< 0.005
	4/5/2017	< 0.005	< 0.005	< 0.005	0.00293*	< 0.005
	9/19/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/19/2017	N/A	< 0.005	N/A	N/A	N/A
	3/5/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/7/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/7/2018	N/A	N/A	N/A	N/A	< 0.005
	3/19/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/19/2019	N/A	N/A	< 0.005	N/A	N/A
	8/27/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/27/2019	N/A	N/A	N/A	N/A	< 0.005
	3/3/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	< 0.005	N/A	N/A	N/A	N/A
	5/18/2021	< 0.005	< 0.005	0.00456*	< 0.005	< 0.005
	5/18/2021	< 0.005	N/A	N/A	N/A	N/A
	9/14/2021	< 0.02	< 0.005	< 0.005	< 0.005	< 0.005
	4/26/2022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/26/2022	N/A	N/A	< 0.005	N/A	N/A
	9/13/2022	< 0.005	< 0.005	N/A	< 0.005	< 0.005
	9/13/2022	N/A	N/A	N/A	< 0.005	N/A
	3/21/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Lead, mg/L (CAS NO - 7439-92-1)	7/31/2009	N/A	N/A	N/A	N/A	< 0.004
	9/3/2009	0.0061	0.00785	N/A	N/A	< 0.004
	12/16/2009	0.0302	0.0108	N/A	N/A	< 0.004
	12/16/2009	N/A	N/A	N/A	N/A	< 0.004
	3/15/2010	0.0322	0.00985	N/A	N/A	< 0.004
	3/15/2010	N/A	N/A	N/A	N/A	< 0.004
	6/30/2010	0.0223	< 0.004	N/A	N/A	< 0.004
	6/30/2010	N/A	N/A	N/A	N/A	< 0.004
	9/2/2010	0.0203	< 0.004	N/A	N/A	< 0.004
	3/8/2011	0.00878	0.0134	N/A	N/A	< 0.004
	9/14/2011	0.0244	< 0.004	N/A	N/A	< 0.004
	3/22/2012	0.0113	0.0107	N/A	N/A	< 0.004
	8/20/2012	0.00436	< 0.004	N/A	N/A	< 0.004
	3/19/2013	0.0143	< 0.004	N/A	N/A	< 0.004
	7/17/2013	N/A	N/A	< 0.004	< 0.004	N/A
	8/22/2013	0.0164	0.0163	0.0147	0.0158	0.00231
	8/22/2013	N/A	N/A	0.0155	N/A	N/A
	10/30/2013	N/A	N/A	0.0386	0.0303	N/A
	2/11/2014	N/A	N/A	0.0217	0.0155	N/A
	3/4/2014	0.00585	0.0144	0.00907	0.0148	0.00105
	3/4/2014	N/A	N/A	N/A	0.0147	N/A
	5/21/2014	N/A	N/A	N/A	0.00948	N/A
	10/28/2014	0.00762	0.0191	0.0136	0.0088	0.00375
	4/7/2015	0.0047	0.000294	0.00743	0.0106	0.000101
	7/28/2015	N/A	N/A	< 0.0025	0.000305*	N/A
	9/22/2015	0.000273*	**0.00144**	< 0.0005	0.000103*	< 0.0005
	9/22/2015	N/A	N/A	N/A	0.000226*	N/A
	3/29/2016	< 0.0005	< 0.0005	< 0.0005	**0.00102**	< 0.0005
	7/13/2016	< 0.0005	< 0.0005	< 0.0005	**0.00126**	< 0.0005
	7/13/2016	N/A	N/A	N/A	N/A	< 0.0005

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Lead, mg/L (CAS NO - 7439-92-1)	4/5/2017	< 0.0005	< 0.0005	< 0.0005	**0.000671**	< 0.0005
	9/19/2017	0.000349*	< 0.0005	**0.000686**	**0.00149**	< 0.0005
	9/19/2017	N/A	< 0.0005	N/A	N/A	N/A
	3/5/2018	< 0.0005	**0.000546**	< 0.0005	**0.000702**	< 0.0005
	8/7/2018	< 0.0005	< 0.0005	0.000475*	**0.000891**	< 0.0005
	8/7/2018	N/A	N/A	N/A	N/A	< 0.0005
	3/19/2019	< 0.0005	< 0.0005	0.000417*	< 0.0005	< 0.0005
	3/19/2019	N/A	N/A	< 0.0005	N/A	N/A
	8/27/2019	< 0.0005	< 0.0005	**0.00072**	< 0.0005	0.000417*
	8/27/2019	N/A	N/A	N/A	N/A	< 0.0005
	3/3/2020	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	9/22/2020	< 0.0005	< 0.0005	**0.000672**	0.000194*	< 0.0005
	9/22/2020	< 0.0005	N/A	N/A	N/A	N/A
	5/18/2021	< 0.0005	< 0.0005	**0.000944**	0.000295*	< 0.0005
	5/18/2021	< 0.0005	N/A	N/A	N/A	N/A
	9/14/2021	< 0.002	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	4/26/2022	< 0.002	< 0.0005	0.000415*	0.000302*	< 0.0005
	4/26/2022	N/A	N/A	0.000418*	N/A	N/A
	9/13/2022	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005
	9/13/2022	N/A	N/A	N/A	**0.00189**	N/A
	3/21/2023	< 0.0005	0.000343*	< 0.0005	**0.000541**	< 0.0005
	8/15/2023	0.000279*	**0.0006**	0.000258*	0.000388*	**0.000568**
Mercury, mg/L (CAS NO - 7439-97-6)	3/15/2010	N/A	N/A	N/A	N/A	< 0.0002
	6/30/2010	0.00743	< 0.0002	N/A	N/A	N/A
	9/14/2011	0.000348	< 0.0002	N/A	N/A	< 0.0002
	7/17/2013	0.00213	N/A	N/A	N/A	N/A
	8/22/2013	0.00105	N/A	N/A	N/A	N/A
	3/4/2014	0.00029	N/A	N/A	N/A	N/A
	10/28/2014	0.00292	N/A	N/A	N/A	N/A
	4/7/2015	0.000112	N/A	< 0.0002	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0002	N/A
	9/22/2015	0.00011*	N/A	N/A	N/A	N/A
	3/29/2016	< 0.0002	< 0.0002	< 0.0002	N/A	< 0.0002
	7/13/2016	< 0.0002	N/A	N/A	< 0.0002	N/A
	4/5/2017	< 0.0002	N/A	N/A	N/A	N/A
	9/19/2017	< 0.0002	N/A	N/A	N/A	N/A
	3/5/2018	< 0.0002	N/A	N/A	N/A	N/A
	8/7/2018	< 0.0002	N/A	N/A	N/A	N/A
	3/19/2019	< 0.0002	N/A	N/A	N/A	N/A
	5/18/2021	< 0.0002	< 0.0004	< 0.0002	< 0.0002	< 0.0002
Nickel, mg/L (CAS NO - 7440-02-0)	7/31/2009	N/A	N/A	N/A	N/A	< 0.05
	9/3/2009	< 0.05	< 0.05	N/A	N/A	< 0.05
	12/16/2009	0.0831	< 0.05	N/A	N/A	< 0.05
	12/16/2009	N/A	N/A	N/A	N/A	< 0.05
	3/15/2010	0.126	< 0.05	N/A	N/A	< 0.05
	3/15/2010	N/A	N/A	N/A	N/A	< 0.05
	6/30/2010	0.0581	< 0.05	N/A	N/A	< 0.05
	6/30/2010	N/A	N/A	N/A	N/A	< 0.05
	9/2/2010	< 0.05	< 0.05	N/A	N/A	< 0.05
	3/8/2011	0.0674	< 0.05	N/A	N/A	< 0.05
	9/14/2011	0.0513	< 0.05	N/A	N/A	< 0.05
	3/22/2012	0.0608	< 0.05	N/A	N/A	< 0.05
	8/20/2012	< 0.05	< 0.05	N/A	N/A	< 0.05
	3/19/2013	0.0712	< 0.05	N/A	N/A	< 0.05
	7/17/2013	N/A	N/A	< 0.05	< 0.05	N/A

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Nickel, mg/L (CAS NO - 7440-02-0)	8/22/2013	0.0771	0.0576	0.0323	0.0635	0.091
	8/22/2013	N/A	N/A	0.0287	N/A	N/A
	10/30/2013	N/A	N/A	0.0731	0.0768	N/A
	2/11/2014	N/A	N/A	0.0386	0.0253	N/A
	3/4/2014	0.0572	0.0215	0.0343	0.0212	0.0119
	3/4/2014	N/A	N/A	N/A	0.0227	N/A
	5/21/2014	N/A	N/A	0.0422	N/A	N/A
	10/28/2014	0.0833	0.0211	0.0235	0.0146	0.0132
	4/7/2015	0.0433	0.00681	0.0178	0.0148	0.00687
	7/28/2015	N/A	N/A	< 0.025	**0.0157**	N/A
	9/22/2015	**0.0426**	0.00371*	0.00169*	**0.0184**	**0.00637**
	9/22/2015	N/A	N/A	N/A	**0.017**	N/A
	3/29/2016	**0.0297**	0.00413*	0.00157*	0.00323*	**0.00566**
	7/13/2016	**0.0358**	0.00224*	< 0.005	0.00402*	**0.00564**
	7/13/2016	N/A	N/A	N/A	N/A	**0.00529**
	4/5/2017	**0.0352**	0.00279*	0.00166*	**0.0154**	**0.00727**
	9/19/2017	**0.0306**	**0.00555**	**0.0218**	**0.0055**	0.00216*
	9/19/2017	N/A	**0.00508**	N/A	N/A	N/A
	3/5/2018	**0.0316**	**0.00601**	**0.00544**	**0.0156**	0.00462*
	8/7/2018	**0.0415**	**0.00839**	**0.0147**	**0.00786**	0.00185*
	8/7/2018	N/A	N/A	N/A	N/A	0.00181*
	3/19/2019	**0.0393**	0.00234*	**0.0202**	**0.0197**	0.00435*
	3/19/2019	N/A	N/A	**0.0249**	N/A	N/A
	8/27/2019	**0.0349**	0.00329*	**0.0156**	**0.0096**	0.00396*
	8/27/2019	N/A	N/A	N/A	N/A	0.00375*
	3/3/2020	**0.0385**	0.00315*	**0.0196**	**0.0122**	0.00417*
	9/22/2020	**0.0382**	0.00245*	**0.015**	**0.0456**	0.0026*
	9/22/2020	**0.0376**	N/A	N/A	N/A	N/A
	5/18/2021	**0.0367**	< 0.005	**0.0155**	**0.00905**	0.00239*
	5/18/2021	**0.0376**	N/A	N/A	N/A	N/A
	9/14/2021	**0.0392**	**0.00533**	0.00437*	**0.0103**	0.00219*
	4/26/2022	**0.0375**	< 0.005	0.00468*	**0.0174**	0.00426*
	4/26/2022	N/A	N/A	0.00486*	N/A	N/A
	9/13/2022	**0.0349**	0.00199*	N/A	**0.0206**	0.00446*
	9/13/2022	N/A	N/A	N/A	**0.0191**	N/A
	3/21/2023	**0.0315**	0.00218*	0.00476*	**0.0135**	**0.00624**
	8/15/2023	**0.0393**	0.00313*	0.00192*	**0.00804**	0.003*
Selenium, mg/L (CAS NO - 7782-49-2)	7/31/2009	N/A	N/A	N/A	N/A	< 0.005
	9/3/2009	< 0.005	< 0.005	N/A	N/A	< 0.005
	12/16/2009	< 0.005	< 0.005	N/A	N/A	< 0.005
	12/16/2009	N/A	N/A	N/A	N/A	< 0.005
	3/15/2010	< 0.005	< 0.005	N/A	N/A	< 0.005
	3/15/2010	N/A	N/A	N/A	N/A	< 0.005
	6/30/2010	< 0.005	< 0.005	N/A	N/A	< 0.005
	6/30/2010	N/A	N/A	N/A	N/A	< 0.005
	9/2/2010	< 0.005	< 0.005	N/A	N/A	< 0.005
	3/8/2011	< 0.005	< 0.005	N/A	N/A	< 0.005
	9/14/2011	< 0.005	< 0.005	N/A	N/A	< 0.005
	3/22/2012	< 0.005	< 0.005	N/A	N/A	< 0.005
	8/20/2012	< 0.005	< 0.005	N/A	N/A	< 0.005
	3/19/2013	< 0.005	< 0.005	N/A	N/A	< 0.005
	7/17/2013	N/A	N/A	< 0.005	< 0.005	N/A
	8/22/2013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/22/2013	N/A	N/A	< 0.005	N/A	N/A
	10/30/2013	N/A	N/A	< 0.005	< 0.005	N/A

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Selenium, mg/L (CAS NO - 7782-49-2)	2/11/2014	N/A	N/A	0.00276	0.00281	N/A
	3/4/2014	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/4/2014	N/A	N/A	N/A	< 0.005	N/A
	10/28/2014	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/7/2015	< 0.015	< 0.005	< 0.005	< 0.005	< 0.005
	7/28/2015	N/A	N/A	< 0.025	< 0.005	N/A
	9/22/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2015	N/A	N/A	N/A	< 0.005	N/A
	3/29/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7/13/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7/13/2016	N/A	N/A	N/A	N/A	< 0.005
	4/5/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/19/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/19/2017	N/A	< 0.005	N/A	N/A	N/A
	3/5/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/7/2018	< 0.005	0.000918*	< 0.005	< 0.005	< 0.005
	8/7/2018	N/A	N/A	N/A	N/A	< 0.005
	3/19/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/19/2019	N/A	N/A	< 0.005	N/A	N/A
	8/27/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/27/2019	N/A	N/A	N/A	N/A	< 0.005
	3/3/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/22/2020	< 0.005	N/A	N/A	N/A	N/A
	5/18/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/18/2021	< 0.005	N/A	N/A	N/A	N/A
	9/14/2021	< 0.02	< 0.005	< 0.005	< 0.005	< 0.005
	4/26/2022	< 0.005	< 0.005	< 0.005	< 0.005	0.00125*
	4/26/2022	N/A	N/A	< 0.005	N/A	N/A
	9/13/2022	< 0.005	< 0.005	N/A	< 0.005	< 0.005
	9/13/2022	N/A	N/A	N/A	< 0.005	N/A
	3/21/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	0.00141*
Silver, mg/L (CAS NO - 7440-22-4)	7/31/2009	N/A	N/A	N/A	N/A	< 0.02
	9/3/2009	< 0.02	< 0.02	N/A	N/A	< 0.02
	12/16/2009	< 0.02	< 0.02	N/A	N/A	< 0.02
	12/16/2009	N/A	N/A	N/A	N/A	< 0.02
	3/15/2010	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/15/2010	N/A	N/A	N/A	N/A	< 0.02
	6/30/2010	< 0.02	< 0.02	N/A	N/A	< 0.02
	6/30/2010	N/A	N/A	N/A	N/A	< 0.02
	9/2/2010	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/8/2011	< 0.02	< 0.02	N/A	N/A	< 0.02
	9/14/2011	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/22/2012	< 0.02	< 0.02	N/A	N/A	< 0.02
	8/20/2012	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/19/2013	< 0.02	< 0.02	N/A	N/A	< 0.02
	7/17/2013	N/A	N/A	< 0.02	< 0.02	N/A
	8/22/2013	0.00517	0.0062	0.006	0.00636	0.00572
	8/22/2013	N/A	N/A	0.00603	N/A	N/A
	10/30/2013	N/A	N/A	< 0.02	< 0.02	N/A
	2/11/2014	N/A	N/A	< 0.02	< 0.02	N/A
	3/4/2014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/4/2014	N/A	N/A	N/A	< 0.02	N/A
	10/28/2014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

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Silver, mg/L (CAS NO - 7440-22-4)	4/7/2015	< 0.003	< 0.001	0.000052	< 0.001	< 0.001
	7/28/2015	N/A	N/A	0.000215*	< 0.001	N/A
	9/22/2015	< 0.001	< 0.001	< 0.001	< 0.001	0.000051*
	9/22/2015	N/A	N/A	N/A	< 0.001	N/A
	3/29/2016	0.000168*	0.000193*	< 0.001	< 0.001	< 0.001
	7/13/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/13/2016	N/A	N/A	N/A	N/A	< 0.001
	4/5/2017	< 0.001	< 0.001	< 0.001	0.000168*	< 0.001
	9/19/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/19/2017	N/A	< 0.001	N/A	N/A	N/A
	3/5/2018	< 0.001	< 0.001	< 0.001	< 0.001	0.000196*
	8/7/2018	< 0.001	0.000321*	< 0.001	< 0.001	< 0.001
	8/7/2018	N/A	N/A	N/A	N/A	< 0.001
	3/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/19/2019	N/A	N/A	< 0.001	N/A	N/A
	8/27/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	N/A	N/A	N/A	N/A	< 0.001
	3/3/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	N/A	N/A	N/A	N/A
	5/18/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/18/2021	< 0.001	N/A	N/A	N/A	N/A
	9/14/2021	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
	4/26/2022	< 0.001	< 0.001	0.000594*	< 0.001	0.000775*
	4/26/2022	N/A	N/A	< 0.001	N/A	N/A
	9/13/2022	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	9/13/2022	N/A	N/A	N/A	< 0.001	N/A
	3/21/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/15/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Thallium, mg/L (CAS NO - 7440-28-0)	7/31/2009	N/A	N/A	N/A	N/A	< 0.002
	9/3/2009	< 0.002	< 0.002	N/A	N/A	< 0.002
	12/16/2009	< 0.002	< 0.002	N/A	N/A	< 0.002
	12/16/2009	N/A	N/A	N/A	N/A	< 0.002
	3/15/2010	< 0.002	< 0.002	N/A	N/A	< 0.002
	3/15/2010	N/A	N/A	N/A	N/A	< 0.002
	6/30/2010	< 0.002	< 0.002	N/A	N/A	< 0.002
	6/30/2010	N/A	N/A	N/A	N/A	< 0.002
	9/2/2010	< 0.002	< 0.002	N/A	N/A	< 0.002
	3/8/2011	< 0.002	< 0.002	N/A	N/A	< 0.002
	9/14/2011	< 0.002	< 0.002	N/A	N/A	< 0.002
	3/22/2012	< 0.002	< 0.002	N/A	N/A	< 0.002
	8/20/2012	< 0.002	< 0.002	N/A	N/A	< 0.002
	3/19/2013	< 0.002	< 0.002	N/A	N/A	< 0.002
	7/17/2013	N/A	N/A	< 0.002	< 0.002	N/A
	8/22/2013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/22/2013	N/A	N/A	< 0.002	N/A	N/A
	10/30/2013	N/A	N/A	< 0.002	< 0.002	N/A
	2/11/2014	N/A	N/A	< 0.002	< 0.002	N/A
	3/4/2014	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/4/2014	N/A	N/A	N/A	< 0.002	N/A
	10/28/2014	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/7/2015	< 0.003	< 0.001	< 0.001	< 0.001	< 0.001
	7/28/2015	N/A	N/A	< 0.005	< 0.001	N/A
	9/22/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2015	N/A	N/A	N/A	< 0.001	N/A

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Thallium, mg/L (CAS NO - 7440-28-0)	3/29/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/13/2016	0.00004*	< 0.001	< 0.001	< 0.001	< 0.001
	7/13/2016	N/A	N/A	N/A	N/A	< 0.001
	4/5/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/19/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/19/2017	N/A	< 0.001	N/A	N/A	N/A
	3/5/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/7/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/7/2018	N/A	N/A	N/A	N/A	< 0.001
	3/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/19/2019	N/A	N/A	< 0.001	N/A	N/A
	8/27/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/27/2019	N/A	N/A	N/A	N/A	< 0.001
	3/3/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/22/2020	< 0.001	N/A	N/A	N/A	N/A
	5/18/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/18/2021	< 0.001	N/A	N/A	N/A	N/A
	9/14/2021	< 0.004	< 0.001	< 0.001	< 0.001	< 0.001
	4/26/2022	< 0.004	< 0.001	< 0.001	< 0.001	0.000373*
	4/26/2022	N/A	N/A	< 0.001	N/A	N/A
	9/13/2022	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	9/13/2022	N/A	N/A	N/A	< 0.001	N/A
	3/21/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/15/2023	< 0.001	< 0.001	< 0.001	< 0.001	**0.00214**
Tin, mg/L (CAS NO - 7440-31-5)	3/15/2010	N/A	N/A	N/A	N/A	< 0.1
	6/30/2010	< 0.1	< 0.1	N/A	N/A	N/A
	9/14/2011	< 0.1	< 0.1	N/A	N/A	< 0.1
	4/7/2015	N/A	N/A	< 0.1	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.005	N/A
	3/29/2016	0.0011*	< 0.005	< 0.005	N/A	< 0.005
	7/13/2016	N/A	N/A	N/A	< 0.005	N/A
	5/18/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium, mg/L (CAS NO - 7440-62-2)	7/31/2009	N/A	N/A	N/A	N/A	< 0.05
	9/3/2009	< 0.05	< 0.05	N/A	N/A	< 0.05
	12/16/2009	< 0.05	< 0.05	N/A	N/A	< 0.05
	12/16/2009	N/A	N/A	N/A	N/A	< 0.05
	3/15/2010	< 0.05	< 0.05	N/A	N/A	< 0.05
	3/15/2010	N/A	N/A	N/A	N/A	< 0.05
	6/30/2010	< 0.05	< 0.05	N/A	N/A	< 0.05
	6/30/2010	N/A	N/A	N/A	N/A	< 0.05
	9/2/2010	< 0.05	< 0.05	N/A	N/A	< 0.05
	3/8/2011	< 0.05	< 0.05	N/A	N/A	< 0.05
	9/14/2011	< 0.05	< 0.05	N/A	N/A	< 0.05
	3/22/2012	0.0693	< 0.05	N/A	N/A	< 0.05
	8/20/2012	< 0.05	< 0.05	N/A	N/A	< 0.05
	3/19/2013	< 0.05	< 0.05	N/A	N/A	< 0.05
	7/17/2013	N/A	N/A	< 0.05	< 0.05	N/A
	8/22/2013	0.0978	0.0701	0.0277	0.0592	0.108
	8/22/2013	N/A	N/A	0.033	N/A	N/A
	10/30/2013	N/A	N/A	0.0493	0.0672	N/A
	2/11/2014	N/A	N/A	0.0239	0.0275	N/A
	3/4/2014	0.023	0.0193	0.00998	0.0147	0.0045
	3/4/2014	N/A	N/A	N/A	0.0154	N/A
	10/28/2014	0.029	0.0197	0.0214	0.0218	0.00752

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Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Vanadium, mg/L (CAS NO - 7440-62-2)	4/7/2015	0.00501	0.000879	0.00913	0.0111	< 0.005
	7/28/2015	N/A	N/A	< 0.025	0.00102*	N/A
	9/22/2015	0.00072*	0.00276*	< 0.005	0.000893*	0.000533*
	9/22/2015	N/A	N/A	N/A	0.000761*	N/A
	3/29/2016	< 0.005	0.000464*	< 0.005	0.00109*	< 0.005
	7/13/2016	0.000459*	0.000583*	< 0.005	0.00158*	0.000262*
	7/13/2016	N/A	N/A	N/A	N/A	< 0.005
	4/5/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/19/2017	< 0.005	< 0.005	< 0.005	0.000929*	< 0.005
	9/19/2017	N/A	< 0.005	N/A	N/A	N/A
	3/5/2018	< 0.005	0.00165*	< 0.005	0.000869*	< 0.005
	8/7/2018	< 0.005	0.000549*	0.000607*	0.00195*	0.000544*
	8/7/2018	N/A	N/A	N/A	N/A	0.000546*
	3/19/2019	< 0.005	< 0.005	< 0.005	0.00134*	< 0.005
	3/19/2019	N/A	N/A	< 0.005	N/A	N/A
	8/27/2019	< 0.005	< 0.005	0.000885*	0.000971*	< 0.005
	8/27/2019	N/A	N/A	N/A	N/A	< 0.005
	3/3/2020	< 0.005	< 0.005	< 0.005	0.00103*	< 0.005
	9/22/2020	< 0.005	< 0.005	< 0.005	0.000998*	< 0.005
	9/22/2020	< 0.005	N/A	N/A	N/A	N/A
	5/18/2021	< 0.005	< 0.005	0.00152*	0.00125*	< 0.005
	5/18/2021	< 0.005	N/A	N/A	N/A	N/A
	9/14/2021	< 0.02	< 0.005	< 0.005	< 0.005	< 0.005
	4/26/2022	< 0.005	< 0.005	< 0.005	0.00395*	< 0.005
	4/26/2022	N/A	N/A	< 0.005	N/A	N/A
	9/13/2022	< 0.005	< 0.005	N/A	< 0.005	< 0.005
	9/13/2022	N/A	N/A	N/A	0.00282*	N/A
	3/21/2023	< 0.005	< 0.005	< 0.005	0.00135*	< 0.005
	8/15/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Zinc, mg/L (CAS NO - 7440-66-6)	7/31/2009	N/A	N/A	N/A	N/A	0.074
	9/3/2009	0.0683	0.0891	N/A	N/A	0.0792
	12/16/2009	0.17	0.119	N/A	N/A	0.0784
	12/16/2009	N/A	N/A	N/A	N/A	0.0786
	3/15/2010	0.109	0.118	N/A	N/A	0.0813
	3/15/2010	N/A	N/A	N/A	N/A	0.0826
	6/30/2010	0.025	< 0.02	N/A	N/A	0.0472
	6/30/2010	N/A	N/A	N/A	N/A	0.0472
	9/2/2010	0.0922	0.0641	N/A	N/A	0.0656
	3/8/2011	0.0721	0.096	N/A	N/A	0.0982
	9/14/2011	< 0.02	< 0.02	N/A	N/A	< 0.02
	3/22/2012	0.0632	0.0241	N/A	N/A	< 0.02
	8/20/2012	0.0315	< 0.02	N/A	N/A	0.0206
	3/19/2013	0.096	0.058	N/A	N/A	0.0623
	7/17/2013	N/A	N/A	0.114	0.129	N/A
	8/22/2013	0.167	0.158	0.122	0.14	0.199
	8/22/2013	N/A	N/A	0.128	N/A	N/A
	10/30/2013	N/A	N/A	0.267	0.237	N/A
	2/11/2014	N/A	N/A	< 0.02	0.0118	N/A
	3/4/2014	< 0.02	< 0.02	< 0.02	0.0156	< 0.02
	3/4/2014	N/A	N/A	N/A	< 0.02	N/A
	10/28/2014	0.0349	< 0.02	0.0199	0.022	< 0.02
	4/7/2015	< 0.03	< 0.01	0.0117	0.0217	< 0.01
	7/28/2015	N/A	N/A	< 0.05	< 0.01	N/A
	9/22/2015	< 0.01	< 0.01	< 0.01	< 0.01	**0.0508**
	9/22/2015	N/A	N/A	N/A	< 0.01	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Source

Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Zinc, mg/L (CAS NO - 7440-66-6)	3/29/2016	< 0.01	0.00998*	< 0.01	< 0.01	< 0.01
	7/13/2016	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	7/13/2016	N/A	N/A	N/A	N/A	< 0.01
	4/5/2017	< 0.02	< 0.02	< 0.02	< 0.02	0.0167*
	9/19/2017	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/19/2017	N/A	< 0.02	N/A	N/A	N/A
	3/5/2018	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/7/2018	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/7/2018	N/A	N/A	N/A	N/A	< 0.02
	3/19/2019	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/19/2019	N/A	N/A	< 0.02	N/A	N/A
	8/27/2019	< 0.04	< 0.02	< 0.02	< 0.02	< 0.02
	8/27/2019	N/A	N/A	N/A	N/A	< 0.02
	3/3/2020	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/22/2020	< 0.02	< 0.02	0.0139*	0.0102*	< 0.02
	9/22/2020	< 0.02	N/A	N/A	N/A	N/A
	5/18/2021	< 0.02	< 0.02	0.0144*	< 0.02	< 0.02
	5/18/2021	< 0.02	N/A	N/A	N/A	N/A
	9/14/2021	< 0.08	< 0.02	0.0131*	< 0.02	< 0.02
	4/26/2022	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/26/2022	N/A	N/A	< 0.02	N/A	N/A
	9/13/2022	< 0.02	< 0.02	N/A	< 0.02	< 0.02
	9/13/2022	N/A	N/A	N/A	< 0.02	N/A
	3/21/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/15/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Total Suspended Solids, mg/L (CAS NO - TSS)	3/4/2014	1810	1690	573	1150	228
	3/4/2014	N/A	N/A	N/A	1210	N/A
	5/21/2014	N/A	N/A	9350	1630	N/A
	10/28/2014	3010	1420	1380	4350	370
	4/7/2015	90.7	110	1080	255	102
	7/28/2015	**62.7**	**307**	**58.5**	**45.8**	**84.1**
	7/28/2015	**62.7**	**307**	N/A	N/A	**84.1**
	9/22/2015	**45.8**	**168**	**9.91**	**29.1**	**57**
	9/22/2015	N/A	N/A	N/A	**37.1**	N/A
	3/29/2016	**30.9**	**87.5**	**9.87**	**34.6**	**46.2**
	7/13/2016	**35.4**	**90.3**	**12.3**	**21**	**61.2**
	7/13/2016	N/A	N/A	N/A	N/A	**62.4**
	11/18/2016	N/A	N/A	N/A	**17.2**	N/A
	3/7/2017	N/A	N/A	N/A	**18.6**	N/A
	4/5/2017	**33.4**	**59.9**	**23**	**17**	**46.2**
	9/19/2017	**11.3**	**74.3**	**54.6**	**98.5**	**56**
	9/19/2017	N/A	**68.4**	N/A	N/A	N/A
	3/5/2018	**24.9**	**99.3**	**19.3**	**9**	**20.7**
	8/7/2018	**48.8**	**60.5**	**15.6**	**48.7**	**34**
	8/7/2018	N/A	N/A	N/A	N/A	**35**
	3/19/2019	**45.1**	**88.2**	**15.5**	**17.3**	**13.8**
	3/19/2019	N/A	N/A	**16**	N/A	N/A
	8/27/2019	**20**	**80.3**	**29.3**	**39**	**60**
	8/27/2019	N/A	N/A	N/A	N/A	**53**
	3/3/2020	**20**	**92**	**6.25**	**10.3**	**12**
	9/22/2020	**43**	**90**	**32.8**	**9.5**	**52**
	9/22/2020	**38**	N/A	N/A	N/A	N/A
	5/18/2021	**43.3**	**71.2**	**97.6**	**23**	**30**
	5/18/2021	**44**	N/A	N/A	N/A	N/A
	9/14/2021	**18.8**	**42.7**	**12.5**	**56.3**	**31.7**

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Source

Total Metals Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	4/26/2022	**47**	**89**	**7.75**	**9**	**16**
	4/26/2022	N/A	N/A	**8.5**	N/A	N/A
	9/13/2022	**51**	**94**	N/A	**150**	**39**
	9/13/2022	N/A	N/A	N/A	**49.8**	N/A
	3/21/2023	**49.5**	**121**	**8**	**32**	**32.3**
	8/15/2023	**47**	**106**	**27**	**13.3**	**51**

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Source

Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	N/A	N/A	N/A	N/A	< 5
	3/15/2010	< 1	< 1	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 2	< 2	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	0.211*	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	7/31/2009	N/A	N/A	N/A	N/A	**4.32**
	9/3/2009	**18.3**	**46.1**	N/A	N/A	**3.33**
	12/16/2009	**11.8**	**40.7**	N/A	N/A	**3.06**
	12/16/2009	N/A	N/A	N/A	N/A	**3.52**
	3/15/2010	**6.37**	**37.4**	N/A	N/A	**3.81**
	3/15/2010	N/A	N/A	N/A	N/A	**4.04**
	6/30/2010	**6.05**	**32.6**	N/A	N/A	**2.52**
	6/30/2010	N/A	N/A	N/A	N/A	**2.52**
	9/2/2010	**10.6**	**39.9**	N/A	N/A	**3.16**
	3/8/2011	**6.15**	**30.8**	N/A	N/A	**1.93**
	9/14/2011	**9.25**	**27.4**	N/A	N/A	**3.01**
	3/22/2012	**5.82**	**31.4**	N/A	N/A	**1.91**
	8/20/2012	**11**	**36.2**	N/A	N/A	**2.96**
	3/19/2013	**8.77**	**13.5**	N/A	N/A	**1.23**
	7/17/2013	N/A	N/A	< 1	**2.09**	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	8/22/2013	10.1	6.02	1.6	< 1	3.06
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	1.28	N/A
	2/11/2014	N/A	N/A	< 1	0.585*	N/A
	3/4/2014	12.6	6.86	< 1	< 1	3.14
	3/4/2014	N/A	N/A	N/A	0.55*	N/A
	10/28/2014	8.88	3.01	< 1	1.38	3.38
	4/7/2015	7.69	4.6	< 1	1.06	2.82
	7/28/2015	N/A	N/A	< 1	1.22	N/A
	9/22/2015	6.04	8.68	< 1	1.32	3.24
	9/22/2015	N/A	N/A	N/A	1.22	N/A
	3/29/2016	6.75	8.05	< 1	< 1	2.23
	7/13/2016	8.29	13.9	< 1	< 1	2.86
	7/13/2016	N/A	N/A	N/A	N/A	2.71
	4/5/2017	6.83	10.2	< 1	0.505*	1.79
	9/19/2017	9.11	8.13	0.623*	0.312*	3.61
	9/19/2017	N/A	7.7	N/A	N/A	N/A
	3/5/2018	8.74	4.54	< 1	< 1	3.46
	8/7/2018	9.05	3.38	< 1	< 1	3
	8/7/2018	N/A	N/A	N/A	N/A	2.72
	3/19/2019	10.2	7.65	0.704*	0.333*	1.37
	3/19/2019	N/A	N/A	0.674*	N/A	N/A
	8/27/2019	10.8	4.56	0.555*	< 1	2.16
	8/27/2019	N/A	N/A	N/A	N/A	2.47
	3/3/2020	8.86	3.45	0.779*	< 1	0.961*
	9/22/2020	8.99	4.92	0.619*	< 1	2.11
	9/22/2020	8.73	N/A	N/A	N/A	N/A
	5/18/2021	10.3	3.21	0.479*	< 1	1.3
	5/18/2021	9.05	N/A	N/A	N/A	N/A
	9/14/2021	9.19	1.23	0.261*	< 1	1.73
	4/26/2022	9.6	1.47	< 1	0.223*	1.16
	4/26/2022	N/A	N/A	0.222*	N/A	N/A
	9/13/2022	9.21	1.94	N/A	< 1	1.87
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	9.62	2.48	< 1	< 1	0.776*
	8/15/2023	11.8	1.63	< 1	< 1	1.59
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	7/31/2009	N/A	N/A	N/A	N/A	< 2
	9/3/2009	< 2	< 2	N/A	N/A	< 2
	12/16/2009	< 2	< 2	N/A	N/A	< 2
	12/16/2009	N/A	N/A	N/A	N/A	< 2
	3/15/2010	< 2	< 2	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 2	< 2	N/A	N/A	< 2
	6/30/2010	N/A	N/A	N/A	N/A	< 2
	9/2/2010	< 2	< 2	N/A	N/A	< 2
	3/8/2011	< 2	< 2	N/A	N/A	< 2
	9/14/2011	< 2	< 2	N/A	N/A	< 2
	3/22/2012	< 2	< 2	N/A	N/A	< 2
	8/20/2012	< 2	< 2	N/A	N/A	< 2
	3/19/2013	< 2	< 2	N/A	N/A	< 2
	7/17/2013	N/A	N/A	< 2	< 2	N/A
	8/22/2013	< 2	< 2	< 2	< 2	< 2
	8/22/2013	N/A	N/A	< 2	N/A	N/A
	10/30/2013	N/A	N/A	< 2	< 2	N/A
	2/11/2014	N/A	N/A	< 2	< 2	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	3/4/2014	< 2	< 2	< 2	< 2	< 2
	3/4/2014	N/A	N/A	N/A	< 2	N/A
	10/28/2014	< 2	< 2	< 2	< 2	< 2
	4/7/2015	< 2	< 2	< 2	< 2	< 2
	7/28/2015	N/A	N/A	< 2	< 2	N/A
	9/22/2015	< 2	< 2	< 2	< 2	< 2
	9/22/2015	N/A	N/A	N/A	< 2	N/A
	3/29/2016	< 2	< 2	< 2	< 2	< 2
	7/13/2016	< 2	< 2	< 2	< 2	< 2
	7/13/2016	N/A	N/A	N/A	N/A	< 2
	4/5/2017	< 2	< 2	< 2	< 2	< 2
	9/19/2017	< 2	< 2	< 2	< 2	< 2
	9/19/2017	N/A	< 2	N/A	N/A	N/A
	3/5/2018	< 2	< 2	< 2	< 2	< 2
	8/7/2018	< 2	< 2	< 2	< 2	< 2
	8/7/2018	N/A	N/A	N/A	N/A	< 2
	3/19/2019	< 2	< 2	< 2	< 2	< 2
	3/19/2019	N/A	N/A	< 2	N/A	N/A
	8/27/2019	< 2	< 2	< 2	< 2	< 2
	8/27/2019	N/A	N/A	N/A	N/A	< 2
	3/3/2020	< 2	< 2	< 2	< 2	< 2
	9/22/2020	< 2	< 2	< 2	< 2	< 2
	9/22/2020	< 2	N/A	N/A	N/A	N/A
	5/18/2021	< 2	< 2	< 2	< 2	< 2
	5/18/2021	< 2	N/A	N/A	N/A	N/A
	9/14/2021	< 2	< 2	< 2	< 2	< 2
	4/26/2022	< 2	< 2	< 2	< 2	< 2
	4/26/2022	N/A	N/A	< 2	N/A	N/A
	9/13/2022	< 2	< 2	N/A	< 2	< 2
	9/13/2022	N/A	N/A	N/A	< 2	N/A
	3/21/2023	< 2	< 2	< 2	< 2	< 2
	8/15/2023	< 2	< 2	< 2	< 2	< 2
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	7/31/2009	N/A	N/A	N/A	N/A	< 0.498
	9/3/2009	< 0.498	< 0.498	N/A	N/A	< 0.498
	12/16/2009	< 0.498	< 0.498	N/A	N/A	< 0.498
	12/16/2009	N/A	N/A	N/A	N/A	< 0.498
	3/15/2010	< 0.498	< 0.498	N/A	N/A	< 0.498
	3/15/2010	N/A	N/A	N/A	N/A	< 0.498
	6/30/2010	< 0.498	< 0.498	N/A	N/A	< 0.498
	6/30/2010	N/A	N/A	N/A	N/A	< 0.498
	9/2/2010	< 0.498	< 0.498	N/A	N/A	< 0.498
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 0.12	< 0.12	N/A	N/A	< 0.12
	3/22/2012	< 0.12	< 0.12	N/A	N/A	< 0.12
	8/20/2012	< 0.12	< 0.12	N/A	N/A	< 0.12
	3/19/2013	< 0.12	< 0.12	N/A	N/A	< 0.12
	7/17/2013	N/A	N/A	< 0.12	< 0.12	N/A
	8/22/2013	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	8/22/2013	N/A	N/A	< 0.12	N/A	N/A
	10/30/2013	N/A	N/A	< 0.12	< 0.12	N/A
	2/11/2014	N/A	N/A	< 0.12	< 0.12	N/A
	3/4/2014	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	3/4/2014	N/A	N/A	N/A	< 0.12	N/A
	10/28/2014	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	4/7/2015	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	7/28/2015	N/A	N/A	< 0.5	< 0.5	N/A
	9/22/2015	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	9/22/2015	N/A	N/A	N/A	< 0.5	N/A
	3/29/2016	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	7/13/2016	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	7/13/2016	N/A	N/A	N/A	N/A	< 0.5
	4/5/2017	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	9/19/2017	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	9/19/2017	N/A	< 0.5	N/A	N/A	N/A
	3/5/2018	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	8/7/2018	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	8/7/2018	N/A	N/A	N/A	N/A	< 0.5
	3/19/2019	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	3/19/2019	N/A	N/A	< 1.2	N/A	N/A
	8/27/2019	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	8/27/2019	N/A	N/A	N/A	N/A	< 1.2
	3/3/2020	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	9/22/2020	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	9/22/2020	< 1.2	N/A	N/A	N/A	N/A
	5/18/2021	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	5/18/2021	< 1.2	N/A	N/A	N/A	N/A
	9/14/2021	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	4/26/2022	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	4/26/2022	N/A	N/A	< 1.2	N/A	N/A
	9/13/2022	< 1.2	< 1.2	N/A	< 1.2	< 1.2
	9/13/2022	N/A	N/A	N/A	< 1.2	N/A
	3/21/2023	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	8/15/2023	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	7/31/2009	N/A	N/A	N/A	N/A	< 0.255
	9/3/2009	< 0.255	< 0.255	N/A	N/A	< 0.255
	12/16/2009	< 0.255	< 0.255	N/A	N/A	< 0.255
	12/16/2009	N/A	N/A	N/A	N/A	< 0.255
	3/15/2010	< 0.255	< 0.255	N/A	N/A	< 0.255
	3/15/2010	N/A	N/A	N/A	N/A	< 0.255
	6/30/2010	< 0.255	< 0.255	N/A	N/A	< 0.255
	6/30/2010	N/A	N/A	N/A	N/A	< 0.255
	9/2/2010	< 0.255	< 0.255	N/A	N/A	< 0.255
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 0.13	< 0.13	N/A	N/A	< 0.13
	3/22/2012	< 0.13	< 0.13	N/A	N/A	< 0.13
	8/20/2012	< 0.13	< 0.13	N/A	N/A	< 0.13
	3/19/2013	< 0.13	< 0.13	N/A	N/A	< 0.13
	7/17/2013	N/A	N/A	< 0.13	< 0.13	N/A
	8/22/2013	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	8/22/2013	N/A	N/A	< 0.13	N/A	N/A
	10/30/2013	N/A	N/A	< 0.13	< 0.13	N/A
	2/11/2014	N/A	N/A	< 0.13	< 0.13	N/A
	3/4/2014	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	3/4/2014	N/A	N/A	N/A	< 0.13	N/A
	10/28/2014	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	4/7/2015	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	7/28/2015	N/A	N/A	< 0.13	< 0.13	N/A
	9/22/2015	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	9/22/2015	N/A	N/A	N/A	< 0.13	N/A
	3/29/2016	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	7/13/2016	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	7/13/2016	N/A	N/A	N/A	N/A	< 0.13
	4/5/2017	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	9/19/2017	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	9/19/2017	N/A	< 0.13	N/A	N/A	N/A
	3/5/2018	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	8/7/2018	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	8/7/2018	N/A	N/A	N/A	N/A	< 0.13
	3/19/2019	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	3/19/2019	N/A	N/A	< 0.34	N/A	N/A
	8/27/2019	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	8/27/2019	N/A	N/A	N/A	N/A	< 0.34
	3/3/2020	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	9/22/2020	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	9/22/2020	< 0.34	N/A	N/A	N/A	N/A
	5/18/2021	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	5/18/2021	< 0.34	N/A	N/A	N/A	N/A
	9/14/2021	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	4/26/2022	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	4/26/2022	N/A	N/A	< 0.34	N/A	N/A
	9/13/2022	< 0.34	< 0.34	N/A	< 0.34	< 0.34
	9/13/2022	N/A	N/A	N/A	< 0.34	N/A
	3/21/2023	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	8/15/2023	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 2	< 2	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	0.292*	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	0.367*	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	0.424*	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	0.291*	< 1	< 1	< 1
	7/13/2016	< 1	0.449*	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	0.187*	0.448*	< 1	< 1	< 1
	9/19/2017	< 1	0.438*	< 1	< 1	< 1
	9/19/2017	N/A	0.465*	N/A	N/A	N/A
	3/5/2018	0.312*	0.399*	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	**13.7**	N/A	N/A	< 1
	12/16/2009	< 1	**16.2**	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	**15.1**	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	**11.7**	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	**13.1**	N/A	N/A	< 1
	3/8/2011	< 1	**10.8**	N/A	N/A	< 1
	9/14/2011	< 1	**9.69**	N/A	N/A	< 1
	3/22/2012	< 1	**9.3**	N/A	N/A	< 1
	8/20/2012	< 1	**9.85**	N/A	N/A	< 1
	3/19/2013	< 1	**5.53**	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	**2.99**	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	**2.67**	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	**1.61**	< 1	< 1	< 1
	4/7/2015	< 1	**1.74**	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	**2.64**	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	**2.53**	< 1	< 1	< 1
	7/13/2016	< 1	**3.77**	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	**3.21**	< 1	< 1	< 1
	9/19/2017	< 1	**2.71**	< 1	< 1	< 1
	9/19/2017	N/A	**2.8**	N/A	N/A	N/A
	3/5/2018	< 1	**2.91**	< 1	< 1	< 1
	8/7/2018	< 1	**1.81**	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	**2.35**	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	**1.9**	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	**1.63**	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	9/22/2020	< 1	**1.75**	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	**1.28**	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	0.831*	< 1	< 1	< 1
	4/26/2022	< 1	0.979*	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	0.799*	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	0.754*	< 1	< 1	< 1
	8/15/2023	< 1	0.705*	< 1	< 1	< 1
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 2	< 2	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	0.235*	< 1	< 1
	3/19/2019	N/A	N/A	0.303*	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	0.462*	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	0.396*	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	0.417*	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
2-Butanone, ug/L (CAS NO - 78-93-3)	7/31/2009	N/A	N/A	N/A	N/A	< 10
	9/3/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10
	3/15/2010	< 10	< 10	N/A	N/A	< 10
	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	< 10
	6/30/2010	N/A	N/A	N/A	N/A	< 10
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	< 10
	8/20/2012	< 10	< 10	N/A	N/A	< 10
	3/19/2013	< 10	< 10	N/A	N/A	< 10
	7/17/2013	N/A	N/A	< 10	< 10	N/A
	8/22/2013	< 10	< 10	< 10	< 10	< 10
	8/22/2013	N/A	N/A	< 10	N/A	N/A
	10/30/2013	N/A	N/A	0.821*	0.96*	N/A
	2/11/2014	N/A	N/A	< 10	< 10	N/A
	3/4/2014	< 10	< 10	< 10	< 10	< 10
	3/4/2014	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	< 10	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	< 10	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	N/A	N/A	N/A	N/A	< 10
	4/5/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	< 10	1.89*	< 10	< 10	< 10
	9/19/2017	N/A	< 10	N/A	N/A	N/A
	3/5/2018	2.88*	2.14*	< 10	< 10	< 10
	8/7/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	< 10	< 10	< 10	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
2-Butanone, ug/L (CAS NO - 78-93-3)	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	< 10	< 10	< 10	< 10	< 10
2-Hexanone, ug/L (CAS NO - 591-78-6)	7/31/2009	N/A	N/A	N/A	N/A	< 10
	9/3/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10
	3/15/2010	< 10	< 10	N/A	N/A	< 10
	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	< 10
	6/30/2010	N/A	N/A	N/A	N/A	< 10
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	< 10
	8/20/2012	< 10	< 10	N/A	N/A	< 10
	3/19/2013	< 10	< 10	N/A	N/A	< 10
	7/17/2013	N/A	N/A	< 10	< 10	N/A
	8/22/2013	< 10	< 10	< 10	< 10	< 10
	8/22/2013	N/A	N/A	< 10	N/A	N/A
	10/30/2013	N/A	N/A	< 10	< 10	N/A
	2/11/2014	N/A	N/A	< 10	< 10	N/A
	3/4/2014	< 10	< 10	< 10	< 10	< 10
	3/4/2014	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	< 10	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	< 10	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	N/A	N/A	N/A	N/A	< 10
	4/5/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	N/A	< 10	N/A	N/A	N/A
	3/5/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	< 10	< 10	< 10	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	< 10	< 10	< 10	< 10	< 10

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	7/31/2009	N/A	N/A	N/A	N/A	< 10
	9/3/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10
	3/15/2010	< 10	< 10	N/A	N/A	< 10
	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	< 10
	6/30/2010	N/A	N/A	N/A	N/A	< 10
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	< 10
	8/20/2012	< 10	< 10	N/A	N/A	< 10
	3/19/2013	< 10	< 10	N/A	N/A	< 10
	7/17/2013	N/A	N/A	< 10	< 10	N/A
	8/22/2013	< 10	< 10	< 10	< 10	< 10
	8/22/2013	N/A	N/A	< 10	N/A	N/A
	10/30/2013	N/A	N/A	< 10	< 10	N/A
	2/11/2014	N/A	N/A	< 10	< 10	N/A
	3/4/2014	< 10	< 10	< 10	< 10	< 10
	3/4/2014	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	< 10	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	< 10	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	N/A	N/A	N/A	N/A	< 10
	4/5/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	< 10	< 10	< 10	< 10	0.676*
	9/19/2017	N/A	< 10	N/A	N/A	N/A
	3/5/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	< 10	< 10	< 10	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	< 10	< 10	< 10	< 10	< 10
Acetone, ug/L (CAS NO - 67-64-1)	7/31/2009	N/A	N/A	N/A	N/A	< 10
	9/3/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Acetone, ug/L (CAS NO - 67-64-1)	3/15/2010	< 10	< 10	N/A	N/A	< 10
	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	< 10
	6/30/2010	N/A	N/A	N/A	N/A	< 10
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	< 10
	8/20/2012	< 10	< 10	N/A	N/A	< 10
	3/19/2013	< 10	< 10	N/A	N/A	< 10
	7/17/2013	N/A	N/A	< 10	< 10	N/A
	8/22/2013	< 10	< 10	5.57*	4.42*	**18.5**
	8/22/2013	N/A	N/A	7.43*	N/A	N/A
	10/30/2013	N/A	N/A	6.73*	6.63*	N/A
	2/11/2014	N/A	N/A	< 10	< 10	N/A
	3/4/2014	< 10	< 10	< 10	2.19*	< 10
	3/4/2014	N/A	N/A	N/A	6.4*	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	2.52*	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	3.13*	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	4.84*	3.25*	4.21*	2.01*	< 10
	7/13/2016	2.43*	< 10	2.01*	< 10	1.95*
	7/13/2016	N/A	N/A	N/A	N/A	2.05*
	4/5/2017	3.92*	3.89*	4.42*	6.25*	3.76*
	9/19/2017	3.52*	**18.9**	2.73*	2.5*	< 10
	9/19/2017	N/A	2.85*	N/A	N/A	N/A
	3/5/2018	5.01*	5.15*	< 10	2.71*	< 10
	8/7/2018	< 10	< 10	< 10	5.23*	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	4.27*	3.7*	4.09*	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	8.75*	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	7.81*	**43.4**	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	4.95*	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	7.18*	N/A
	3/21/2023	< 10	< 10	< 10	**23.5**	< 10
	8/15/2023	4.14*	6.27*	5.07*	7.35*	5.75*
Acrylonitrile, ug/L (CAS NO - 107-13-1)	7/31/2009	N/A	N/A	N/A	N/A	< 10
	9/3/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10
	3/15/2010	< 10	< 10	N/A	N/A	< 10
	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	< 10
	6/30/2010	N/A	N/A	N/A	N/A	< 10

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Acrylonitrile, ug/L (CAS NO - 107-13-1)	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	< 10
	8/20/2012	< 10	< 10	N/A	N/A	< 10
	3/19/2013	< 10	< 10	N/A	N/A	< 10
	7/17/2013	N/A	N/A	< 10	< 10	N/A
	8/22/2013	< 10	< 10	< 10	< 10	< 10
	8/22/2013	N/A	N/A	< 10	N/A	N/A
	10/30/2013	N/A	N/A	< 10	< 10	N/A
	2/11/2014	N/A	N/A	< 10	< 10	N/A
	3/4/2014	< 10	< 10	< 10	< 10	< 10
	3/4/2014	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	< 10	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	< 10	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	N/A	N/A	N/A	N/A	< 10
	4/5/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	N/A	< 10	N/A	N/A	N/A
	3/5/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	< 10	< 10	< 10	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	< 10	< 10	< 10	< 10	< 10
Benzene, ug/L (CAS NO - 71-43-2)	7/31/2009	N/A	N/A	N/A	N/A	< 0.5
	9/3/2009	**0.75**	**2.6**	N/A	N/A	< 0.5
	12/16/2009	**1.33**	**2.84**	N/A	N/A	< 0.5
	12/16/2009	N/A	N/A	N/A	N/A	< 0.5
	3/15/2010	**1.39**	**2.67**	N/A	N/A	< 0.5
	3/15/2010	N/A	N/A	N/A	N/A	< 0.5
	6/30/2010	**1.81**	**2.91**	N/A	N/A	**0.82**
	6/30/2010	N/A	N/A	N/A	N/A	**0.82**
	9/2/2010	**0.89**	**3**	N/A	N/A	**0.5**
	3/8/2011	**1.14**	**2.85**	N/A	N/A	**0.64**
	9/14/2011	**0.99**	**2.67**	N/A	N/A	**0.61**
	3/22/2012	**0.72**	**2.46**	N/A	N/A	**1.49**

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Benzene, ug/L (CAS NO - 71-43-2)	8/20/2012	**0.71**	**4.26**	N/A	N/A	< 0.5
	3/19/2013	**0.759**	**2.28**	N/A	N/A	**2.33**
	7/17/2013	N/A	N/A	< 0.5	< 0.5	N/A
	8/22/2013	**0.86**	**1.9**	0.236*	0.17*	**0.595**
	8/22/2013	N/A	N/A	0.319*	N/A	N/A
	10/30/2013	N/A	N/A	0.157*	0.194*	N/A
	2/11/2014	N/A	N/A	0.206*	< 0.5	N/A
	3/4/2014	**0.63**	**2.8**	**0.551**	< 0.5	**0.566**
	3/4/2014	N/A	N/A	N/A	< 0.5	N/A
	10/28/2014	**0.742**	**1.6**	**1.4**	0.254*	0.359*
	4/7/2015	**0.622**	**2.17**	**1.88**	0.158*	**0.675**
	7/28/2015	N/A	N/A	**1.79**	0.301*	N/A
	9/22/2015	**1.16**	**3.14**	**1.13**	0.479*	**0.905**
	9/22/2015	N/A	N/A	N/A	0.454*	N/A
	3/29/2016	**0.971**	**1.94**	< 0.5	< 0.5	**0.684**
	7/13/2016	**1.56**	**3.11**	**0.855**	< 0.5	**0.8**
	7/13/2016	N/A	N/A	N/A	N/A	**0.715**
	4/5/2017	**0.838**	**2.13**	**1.36**	**0.589**	**1.25**
	9/19/2017	**0.768**	**2.19**	**1.9**	0.261*	**0.546**
	9/19/2017	N/A	**2.18**	N/A	N/A	N/A
	3/5/2018	**0.883**	**2.21**	0.342*	< 0.5	0.433*
	8/7/2018	**0.83**	**1.77**	**0.537**	< 0.5	**0.543**
	8/7/2018	N/A	N/A	N/A	N/A	**0.548**
	3/19/2019	**1.13**	**2**	**1.48**	**1.7**	**0.572**
	3/19/2019	N/A	N/A	**1.59**	N/A	N/A
	8/27/2019	**0.853**	**2.02**	**0.746**	**0.683**	**0.687**
	8/27/2019	N/A	N/A	N/A	N/A	**0.691**
	3/3/2020	**1.01**	**1.54**	**1.43**	**1.43**	0.465*
	9/22/2020	**1.02**	**2.05**	**1.04**	0.265*	**0.536**
	9/22/2020	**1.13**	N/A	N/A	N/A	N/A
	5/18/2021	**0.796**	**1.79**	**3**	**1.39**	0.47*
	5/18/2021	**1.24**	N/A	N/A	N/A	N/A
	9/14/2021	**0.865**	**1.71**	**0.686**	0.353*	0.293*
	4/26/2022	**0.986**	**1.7**	**0.918**	< 0.5	< 0.5
	4/26/2022	N/A	N/A	**0.988**	N/A	N/A
	9/13/2022	**0.935**	**2.45**	N/A	0.248*	0.284*
	9/13/2022	N/A	N/A	N/A	< 0.5	N/A
	3/21/2023	**0.943**	**1.66**	**0.798**	**0.821**	< 0.5
	8/15/2023	**1.1**	**2.03**	**1.23**	0.491*	0.341*
Bromochloromethane, ug/L (CAS NO - 74-97-5)	7/31/2009	N/A	N/A	N/A	N/A	< 5
	9/3/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	N/A	N/A	N/A	N/A	< 5
	3/15/2010	< 5	< 5	N/A	N/A	< 5
	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 5	< 5	N/A	N/A	< 5
	3/8/2011	< 5	< 5	N/A	N/A	< 5
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	3/22/2012	< 5	< 5	N/A	N/A	< 5
	8/20/2012	< 5	< 5	N/A	N/A	< 5
	3/19/2013	< 5	< 5	N/A	N/A	< 5
	7/17/2013	N/A	N/A	< 5	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Bromochloromethane, ug/L (CAS NO - 74-97-5)	8/22/2013	< 5	< 5	< 5	< 5	< 5
	8/22/2013	N/A	N/A	< 5	N/A	N/A
	10/30/2013	N/A	N/A	< 5	< 5	N/A
	2/11/2014	N/A	N/A	< 5	< 5	N/A
	3/4/2014	< 5	< 5	< 5	< 5	< 5
	3/4/2014	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	< 5	< 5	< 5	< 5
	4/7/2015	< 5	< 5	< 5	< 5	< 5
	7/28/2015	N/A	N/A	< 5	< 5	N/A
	9/22/2015	< 5	< 5	< 5	< 5	< 5
	9/22/2015	N/A	N/A	N/A	< 5	N/A
	3/29/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	N/A	N/A	N/A	N/A	< 5
	4/5/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	N/A	< 5	N/A	N/A	N/A
	3/5/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	N/A	N/A	N/A	N/A	< 5
	3/19/2019	< 5	< 5	< 5	< 5	< 5
	3/19/2019	N/A	N/A	< 5	N/A	N/A
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	N/A	N/A	N/A	N/A	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	N/A	N/A	N/A	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	N/A	N/A	N/A	N/A
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	4/26/2022	N/A	N/A	< 5	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5
	9/13/2022	N/A	N/A	N/A	< 5	N/A
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	N/A	N/A	N/A	N/A	< 5
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Source

Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
Bromoform, ug/L (CAS NO - 75-25-2)	7/31/2009	N/A	N/A	N/A	N/A	< 5
	9/3/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10
	3/15/2010	< 5	< 5	N/A	N/A	< 5
	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 5	< 5	N/A	N/A	< 5
	3/8/2011	< 5	< 5	N/A	N/A	< 5
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	3/22/2012	< 5	< 5	N/A	N/A	< 5
	8/20/2012	< 5	< 5	N/A	N/A	< 5
	3/19/2013	< 5	< 5	N/A	N/A	< 5
	7/17/2013	N/A	N/A	< 5	< 5	N/A
	8/22/2013	0.307*	< 5	0.378*	0.362*	0.331*
	8/22/2013	N/A	N/A	0.296*	N/A	N/A
	10/30/2013	N/A	N/A	< 5	< 5	N/A
	2/11/2014	N/A	N/A	< 5	< 5	N/A
	3/4/2014	< 5	< 5	< 5	< 5	< 5
	3/4/2014	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	< 5	< 5	< 5	< 5
	4/7/2015	< 5	< 5	< 5	< 5	< 5

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Bromoform, ug/L (CAS NO - 75-25-2)	7/28/2015	N/A	N/A	< 5	< 5	N/A
	9/22/2015	< 5	< 5	< 5	< 5	< 5
	9/22/2015	N/A	N/A	N/A	< 5	N/A
	3/29/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	N/A	N/A	N/A	N/A	< 5
	4/5/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	N/A	< 5	N/A	N/A	N/A
	3/5/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	N/A	N/A	N/A	N/A	< 5
	3/19/2019	< 5	< 5	< 5	< 5	< 5
	3/19/2019	N/A	N/A	< 5	N/A	N/A
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	N/A	N/A	N/A	N/A	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	N/A	N/A	N/A	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	N/A	N/A	N/A	N/A
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	4/26/2022	N/A	N/A	< 5	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5
	9/13/2022	N/A	N/A	N/A	< 5	N/A
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	< 5	< 5	< 5	< 5	< 5
Bromomethane, ug/L (CAS NO - 74-83-9)	7/31/2009	N/A	N/A	N/A	N/A	< 4
	9/3/2009	< 4	< 4	N/A	N/A	< 4
	12/16/2009	< 4	< 4	N/A	N/A	< 4
	12/16/2009	N/A	N/A	N/A	N/A	< 4
	3/15/2010	< 4	< 4	N/A	N/A	< 4
	3/15/2010	N/A	N/A	N/A	N/A	< 4
	6/30/2010	< 4	< 4	N/A	N/A	< 4
	6/30/2010	N/A	N/A	N/A	N/A	< 4
	9/2/2010	< 4	< 4	N/A	N/A	< 4
	3/8/2011	< 4	< 4	N/A	N/A	< 4
	9/14/2011	< 4	< 4	N/A	N/A	< 4
	3/22/2012	< 4	< 4	N/A	N/A	< 4
	8/20/2012	< 4	< 4	N/A	N/A	< 4
	3/19/2013	< 4	< 4	N/A	N/A	< 4
	7/17/2013	N/A	N/A	< 4	< 4	N/A
	8/22/2013	< 4	0.34*	< 4	< 4	< 4
	8/22/2013	N/A	N/A	< 4	N/A	N/A
	10/30/2013	N/A	N/A	< 4	< 4	N/A
	2/11/2014	N/A	N/A	< 4	< 4	N/A
	3/4/2014	< 4	< 4	< 4	< 4	< 4
	3/4/2014	N/A	N/A	N/A	< 4	N/A
	10/28/2014	< 4	< 4	< 4	< 4	< 4
	4/7/2015	< 4	< 4	< 4	< 4	< 4
	7/28/2015	N/A	N/A	< 4	< 4	N/A
	9/22/2015	< 4	< 4	< 4	< 4	< 4
	9/22/2015	N/A	N/A	N/A	< 4	N/A
	3/29/2016	< 4	< 4	< 4	< 4	< 4

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Bromomethane, ug/L (CAS NO - 74-83-9)	7/13/2016	< 4	0.654*	< 4	< 4	0.247*
	7/13/2016	N/A	N/A	N/A	N/A	0.376*
	4/5/2017	< 4	< 4	< 4	< 4	< 4
	9/19/2017	0.626*	0.542*	0.593*	0.376*	0.403*
	9/19/2017	N/A	0.438*	N/A	N/A	N/A
	3/5/2018	0.249*	0.287*	< 4	< 4	< 4
	8/7/2018	< 4	< 4	< 4	< 4	< 4
	8/7/2018	N/A	N/A	N/A	N/A	< 4
	3/19/2019	< 4	< 4	< 4	< 4	< 4
	3/19/2019	N/A	N/A	< 4	N/A	N/A
	8/27/2019	< 4	< 4	< 4	< 4	< 4
	8/27/2019	N/A	N/A	N/A	N/A	< 4
	3/3/2020	< 4	< 4	< 4	< 4	< 4
	9/22/2020	< 4	< 4	< 4	< 4	< 4
	9/22/2020	< 4	N/A	N/A	N/A	N/A
	5/18/2021	< 4	< 4	< 4	< 4	< 4
	5/18/2021	< 4	N/A	N/A	N/A	N/A
	9/14/2021	< 4	< 4	< 4	< 4	< 4
	4/26/2022	< 4	< 4	< 4	< 4	< 4
	4/26/2022	N/A	N/A	< 4	N/A	N/A
	9/13/2022	< 4	< 4	N/A	< 4	< 4
	9/13/2022	N/A	N/A	N/A	< 4	N/A
	3/21/2023	< 4	< 4	< 4	< 4	< 4
	8/15/2023	< 4	< 4	< 4	< 4	< 4
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 2	< 2	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 4	< 4	N/A	N/A	< 4
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	0.197*	< 1	< 1	0.162*	**1.61**
	8/22/2013	N/A	N/A	0.248*	N/A	N/A
	10/30/2013	N/A	N/A	0.695*	0.167*	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	9/19/2017	< 1	< 1	< 1	0.294*	0.328*
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	0.189*	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	7/31/2009	N/A	N/A	N/A	N/A	< 2
	9/3/2009	< 2	< 2	N/A	N/A	< 2
	12/16/2009	< 2	< 2	N/A	N/A	< 2
	12/16/2009	N/A	N/A	N/A	N/A	< 2
	3/15/2010	< 2	< 2	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 4	< 4	N/A	N/A	< 4
	6/30/2010	N/A	N/A	N/A	N/A	< 4
	9/2/2010	< 5	< 5	N/A	N/A	< 5
	3/8/2011	< 2	< 2	N/A	N/A	< 2
	9/14/2011	< 4	< 4	N/A	N/A	< 4
	3/22/2012	< 2	< 2	N/A	N/A	< 2
	8/20/2012	< 2	< 2	N/A	N/A	< 2
	3/19/2013	< 2	< 2	N/A	N/A	< 2
	7/17/2013	N/A	N/A	< 2	< 2	N/A
	8/22/2013	< 2	< 2	< 2	< 2	< 2
	8/22/2013	N/A	N/A	< 2	N/A	N/A
	10/30/2013	N/A	N/A	< 2	< 2	N/A
	2/11/2014	N/A	N/A	< 2	< 2	N/A
	3/4/2014	< 2	< 2	< 2	< 2	< 2
	3/4/2014	N/A	N/A	N/A	< 2	N/A
	10/28/2014	< 2	< 2	< 2	< 2	< 2
	4/7/2015	< 2	< 2	< 2	< 2	< 2
	7/28/2015	N/A	N/A	< 2	< 2	N/A
	9/22/2015	< 2	< 2	< 2	< 2	< 2
	9/22/2015	N/A	N/A	N/A	< 2	N/A
	3/29/2016	< 2	< 2	< 2	< 2	< 2
	7/13/2016	< 2	< 2	< 2	< 2	< 2
	7/13/2016	N/A	N/A	N/A	N/A	< 2
	4/5/2017	< 2	< 2	< 2	< 2	< 2
	9/19/2017	< 2	< 2	< 2	< 2	< 2
	9/19/2017	N/A	< 2	N/A	N/A	N/A
	3/5/2018	< 2	< 2	< 2	< 2	< 2

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	8/7/2018	< 2	< 2	< 2	< 2	< 2
	8/7/2018	N/A	N/A	N/A	N/A	< 2
	3/19/2019	< 2	< 2	< 2	< 2	< 2
	3/19/2019	N/A	N/A	< 2	N/A	N/A
	8/27/2019	< 2	< 2	< 2	< 2	< 2
	8/27/2019	N/A	N/A	N/A	N/A	< 2
	3/3/2020	< 2	< 2	< 2	< 2	< 2
	9/22/2020	< 2	< 2	< 2	< 2	< 2
	9/22/2020	< 2	N/A	N/A	N/A	N/A
	5/18/2021	< 2	< 2	< 2	< 2	< 2
	5/18/2021	< 2	N/A	N/A	N/A	N/A
	9/14/2021	< 2	< 2	< 2	< 2	< 2
	4/26/2022	< 2	< 2	< 2	< 2	< 2
	4/26/2022	N/A	N/A	< 2	N/A	N/A
	9/13/2022	< 2	< 2	N/A	< 2	< 2
	9/13/2022	N/A	N/A	N/A	< 2	N/A
	3/21/2023	< 2	< 2	< 2	< 2	< 2
	8/15/2023	< 2	< 2	< 2	< 2	< 2
Chlorobenzene, ug/L (CAS NO - 108-90-7)	7/31/2009	N/A	N/A	N/A	N/A	**1.33**
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	**1.6**
	12/16/2009	N/A	N/A	N/A	N/A	**1.41**
	3/15/2010	< 1	< 1	N/A	N/A	**1.99**
	3/15/2010	N/A	N/A	N/A	N/A	**1.95**
	6/30/2010	< 1	< 1	N/A	N/A	**2.35**
	6/30/2010	N/A	N/A	N/A	N/A	**2.35**
	9/2/2010	< 1	< 1	N/A	N/A	**2.9**
	3/8/2011	< 1	< 1	N/A	N/A	**2.69**
	9/14/2011	< 1	< 1	N/A	N/A	**4.12**
	3/22/2012	< 1	< 1	N/A	N/A	**4.07**
	8/20/2012	< 1	< 1	N/A	N/A	**2.69**
	3/19/2013	< 1	< 1	N/A	N/A	**4.89**
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	**3.95**
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	0.39*	< 1	0.3*	< 1	**4.2**
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	0.305*	< 1	< 1	< 1	**4.36**
	4/7/2015	0.348*	< 1	< 1	< 1	**4.58**
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	**5.5**
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	0.48*	< 1	< 1	< 1	**5.25**
	7/13/2016	N/A	N/A	N/A	N/A	**5.1**
	4/5/2017	< 1	< 1	< 1	< 1	**5.05**
	9/19/2017	0.349*	< 1	0.728*	< 1	**6.15**
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	0.408*	< 1	0.375*	< 1	**5.72**
	8/7/2018	< 1	< 1	< 1	< 1	**5.2**
	8/7/2018	N/A	N/A	N/A	N/A	**4.92**
	3/19/2019	< 1	< 1	**1.16**	< 1	**4.3**
	3/19/2019	N/A	N/A	**1.15**	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Chlorobenzene, ug/L (CAS NO - 108-90-7)	8/27/2019	< 1	< 1	0.629*	< 1	**6.81**
	8/27/2019	N/A	N/A	N/A	N/A	**6.67**
	3/3/2020	< 1	< 1	**2.23**	< 1	**3.66**
	9/22/2020	0.462*	< 1	< 1	< 1	**6.49**
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	0.43*	< 1	**1.61**	< 1	**5.74**
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	0.829*	< 1	**7.67**
	4/26/2022	0.446*	< 1	**1.11**	< 1	**2.52**
	4/26/2022	N/A	N/A	0.987*	N/A	N/A
	9/13/2022	0.418*	< 1	N/A	< 1	**7.1**
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	**1.01**	< 1	**1.25**
	8/15/2023	0.492*	< 1	0.645*	< 1	**6.11**
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	7/31/2009	N/A	N/A	N/A	N/A	< 5
	9/3/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10
	3/15/2010	< 5	< 5	N/A	N/A	< 5
	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 5	< 5	N/A	N/A	< 5
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	3/22/2012	< 5	< 5	N/A	N/A	< 5
	8/20/2012	< 5	< 5	N/A	N/A	< 5
	3/19/2013	< 5	< 5	N/A	N/A	< 5
	7/17/2013	N/A	N/A	< 5	< 5	N/A
	8/22/2013	< 5	< 5	< 5	< 5	< 5
	8/22/2013	N/A	N/A	< 5	N/A	N/A
	10/30/2013	N/A	N/A	< 5	< 5	N/A
	2/11/2014	N/A	N/A	< 5	< 5	N/A
	3/4/2014	< 5	< 5	< 5	< 5	< 5
	3/4/2014	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	< 5	< 5	< 5	< 5
	4/7/2015	< 5	< 5	< 5	< 5	< 5
	7/28/2015	N/A	N/A	< 5	< 5	N/A
	9/22/2015	< 5	< 5	< 5	< 5	< 5
	9/22/2015	N/A	N/A	N/A	< 5	N/A
	3/29/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	N/A	N/A	N/A	N/A	< 5
	4/5/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	N/A	< 5	N/A	N/A	N/A
	3/5/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	N/A	N/A	N/A	N/A	< 5
	3/19/2019	< 5	< 5	< 5	< 5	< 5
	3/19/2019	N/A	N/A	< 5	N/A	N/A
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	N/A	N/A	N/A	N/A	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	9/22/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	N/A	N/A	N/A	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	N/A	N/A	N/A	N/A
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	4/26/2022	N/A	N/A	< 5	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5
	9/13/2022	N/A	N/A	N/A	< 5	N/A
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	< 5	< 5	< 5	< 5	< 5
Chloroethane, ug/L (CAS NO - 75-00-3)	7/31/2009	N/A	N/A	N/A	N/A	**9.76**
	9/3/2009	**6.51**	**17.3**	N/A	N/A	**6.11**
	12/16/2009	**8.39**	**29.3**	N/A	N/A	**8.37**
	12/16/2009	N/A	N/A	N/A	N/A	**8.61**
	3/15/2010	**7.32**	**23.5**	N/A	N/A	**8.72**
	3/15/2010	N/A	N/A	N/A	N/A	**9.6**
	6/30/2010	**9.9**	**29.1**	N/A	N/A	**7.11**
	6/30/2010	N/A	N/A	N/A	N/A	**7.11**
	9/2/2010	**9.4**	**28.9**	N/A	N/A	**7.51**
	3/8/2011	**6.54**	**25.1**	N/A	N/A	**5.04**
	9/14/2011	**8.34**	**26.9**	N/A	N/A	**6.88**
	3/22/2012	**6.62**	**23.4**	N/A	N/A	**4.53**
	8/20/2012	**9.53**	**37.2**	N/A	N/A	**5.24**
	3/19/2013	**8.83**	**22.8**	N/A	N/A	**4.54**
	7/17/2013	N/A	N/A	< 4	< 4	N/A
	8/22/2013	**9.02**	**13.6**	2.73*	< 4	< 4
	8/22/2013	N/A	N/A	< 4	N/A	N/A
	10/30/2013	N/A	N/A	< 4	0.631*	N/A
	2/11/2014	N/A	N/A	< 4	< 4	N/A
	3/4/2014	**10.1**	**18.3**	< 4	< 4	3.9*
	3/4/2014	N/A	N/A	N/A	< 4	N/A
	10/28/2014	**8.27**	**10**	< 4	1.25*	3.49*
	4/7/2015	**6.78**	**11**	< 4	0.772*	**4.22**
	7/28/2015	N/A	N/A	< 4	1.4*	N/A
	9/22/2015	**7.36**	**11.7**	< 4	**4.97**	3.12*
	9/22/2015	N/A	N/A	N/A	< 4	N/A
	3/29/2016	**6.49**	**8.12**	< 4	< 4	2.7*
	7/13/2016	**8.83**	**9.64**	< 4	< 4	2.72*
	7/13/2016	N/A	N/A	N/A	N/A	2.74*
	4/5/2017	**6.9**	**6.93**	< 4	0.885*	2.7*
	9/19/2017	**7.12**	**8.24**	0.896*	1.43*	**4.22**
	9/19/2017	N/A	**8.16**	N/A	N/A	N/A
	3/5/2018	**6.12**	**6.17**	< 4	< 4	0.944*
	8/7/2018	**7.17**	**6.29**	< 4	< 4	2.07*
	8/7/2018	N/A	N/A	N/A	N/A	< 4
	3/19/2019	**9.49**	**6.11**	< 4	1.54*	1.05*
	3/19/2019	N/A	N/A	< 4	N/A	N/A
	8/27/2019	**9.98**	**6.43**	< 4	< 4	1.96*
	8/27/2019	N/A	N/A	N/A	N/A	2.98*
	3/3/2020	**7.73**	**4.64**	< 4	< 4	< 4
	9/22/2020	**10.7**	**5.07**	< 4	< 4	< 4
	9/22/2020	**9.74**	N/A	N/A	N/A	N/A
	5/18/2021	**10.7**	**5.53**	0.884*	< 4	1.61*
	5/18/2021	**10.9**	N/A	N/A	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Chloroethane, ug/L (CAS NO - 75-00-3)	9/14/2021	**8.31**	**4.36**	< 4	< 4	1.75*
	4/26/2022	**8.8**	3.09*	< 4	< 4	< 4
	4/26/2022	N/A	N/A	< 4	N/A	N/A
	9/13/2022	**7.42**	**5.37**	N/A	< 4	2.21*
	9/13/2022	N/A	N/A	N/A	< 4	N/A
	3/21/2023	**4.97**	3.58*	< 4	< 4	< 4
	8/15/2023	**6.14**	3.88*	< 4	< 4	1.29*
Chloroform, ug/L (CAS NO - 67-66-3)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 2	< 2	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 3	< 3	< 3	< 3	< 3
	8/7/2018	N/A	N/A	N/A	N/A	< 3
	3/19/2019	< 3	< 3	< 3	< 3	< 3
	3/19/2019	N/A	N/A	< 3	N/A	N/A
	8/27/2019	< 3	< 3	< 3	< 3	< 3
	8/27/2019	N/A	N/A	N/A	N/A	< 3
	3/3/2020	< 3	< 3	< 3	< 3	< 3
	9/22/2020	< 3	< 3	< 3	< 3	< 3
	9/22/2020	< 3	N/A	N/A	N/A	N/A
	5/18/2021	< 3	< 3	< 3	< 3	< 3
	5/18/2021	< 3	N/A	N/A	N/A	N/A
	9/14/2021	< 3	< 3	< 3	< 3	< 3
	4/26/2022	< 3	< 3	< 3	< 3	< 3
	4/26/2022	N/A	N/A	< 3	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Chloroform, ug/L (CAS NO - 67-66-3)	9/13/2022	< 3	< 3	N/A	< 3	< 3
	9/13/2022	N/A	N/A	N/A	< 3	N/A
	3/21/2023	< 3	< 3	< 3	< 3	< 3
	8/15/2023	< 3	< 3	< 3	< 3	< 3
Chloromethane, ug/L (CAS NO - 74-87-3)	7/31/2009	N/A	N/A	N/A	N/A	< 3
	9/3/2009	< 3	< 3	N/A	N/A	< 3
	12/16/2009	< 3	< 3	N/A	N/A	< 3
	12/16/2009	N/A	N/A	N/A	N/A	< 3
	3/15/2010	< 3	< 3	N/A	N/A	< 3
	3/15/2010	N/A	N/A	N/A	N/A	< 3
	6/30/2010	< 3	< 3	N/A	N/A	< 3
	6/30/2010	N/A	N/A	N/A	N/A	< 3
	9/2/2010	< 3	< 3	N/A	N/A	< 3
	3/8/2011	< 3	< 3	N/A	N/A	< 3
	9/14/2011	< 3	< 3	N/A	N/A	< 3
	3/22/2012	< 3	< 3	N/A	N/A	< 3
	8/20/2012	< 3	< 3	N/A	N/A	< 3
	3/19/2013	< 3	< 3	N/A	N/A	< 3
	7/17/2013	N/A	N/A	< 3	< 3	N/A
	8/22/2013	0.347*	< 3	< 3	< 3	< 3
	8/22/2013	N/A	N/A	< 3	N/A	N/A
	10/30/2013	N/A	N/A	< 3	< 3	N/A
	2/11/2014	N/A	N/A	< 3	< 3	N/A
	3/4/2014	< 3	< 3	< 3	< 3	< 3
	3/4/2014	N/A	N/A	N/A	< 3	N/A
	10/28/2014	< 3	< 3	< 3	< 3	< 3
	4/7/2015	< 3	< 3	< 3	< 3	< 3
	7/28/2015	N/A	N/A	< 3	< 3	N/A
	9/22/2015	< 3	< 3	0.713*	0.58*	0.699*
	9/22/2015	N/A	N/A	N/A	0.637*	N/A
	3/29/2016	< 3	< 3	< 3	< 3	< 3
	7/13/2016	< 3	< 3	< 3	< 3	< 3
	7/13/2016	N/A	N/A	N/A	N/A	< 3
	4/5/2017	< 3	< 3	< 3	< 3	< 3
	9/19/2017	< 3	< 3	< 3	< 3	< 3
	9/19/2017	N/A	< 3	N/A	N/A	N/A
	3/5/2018	< 3	< 3	< 3	< 3	< 3
	8/7/2018	< 3	< 3	< 3	< 3	< 3
	8/7/2018	N/A	N/A	N/A	N/A	< 3
	3/19/2019	< 3	< 3	< 3	< 3	< 3
	3/19/2019	N/A	N/A	< 3	N/A	N/A
	8/27/2019	< 3	< 3	< 3	< 3	< 3
	8/27/2019	N/A	N/A	N/A	N/A	< 3
	3/3/2020	< 3	< 3	< 3	< 3	< 3
	9/22/2020	< 3	< 3	< 3	< 3	< 3
	9/22/2020	< 3	N/A	N/A	N/A	N/A
	5/18/2021	< 3	< 3	< 3	< 3	< 3
	5/18/2021	< 3	N/A	N/A	N/A	N/A
	9/14/2021	< 3	< 3	< 3	< 3	< 3
	4/26/2022	< 3	< 3	< 3	< 3	< 3
	4/26/2022	N/A	N/A	< 3	N/A	N/A
	9/13/2022	< 3	< 3	N/A	< 3	< 3
	9/13/2022	N/A	N/A	N/A	< 3	N/A
	3/21/2023	< 3	< 3	< 3	< 3	< 3
	8/15/2023	< 3	1.7*	< 3	0.754*	< 3

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	7/31/2009	N/A	N/A	N/A	N/A	4.48
	9/3/2009	20.8	6.21	N/A	N/A	3.34
	12/16/2009	29.4	8.73	N/A	N/A	4.54
	12/16/2009	N/A	N/A	N/A	N/A	3.66
	3/15/2010	18.9	7.3	N/A	N/A	4.68
	3/15/2010	N/A	N/A	N/A	N/A	4.86
	6/30/2010	24.7	6.67	N/A	N/A	3.36
	6/30/2010	N/A	N/A	N/A	N/A	3.36
	9/2/2010	17.3	6.89	N/A	N/A	4.11
	3/8/2011	11.3	6.5	N/A	N/A	3.19
	9/14/2011	17.3	5.76	N/A	N/A	3.8
	3/22/2012	8.44	4.88	N/A	N/A	1.48
	8/20/2012	12.7	7.36	N/A	N/A	3.25
	3/19/2013	6.84	3.49	N/A	N/A	1.12
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	6.03	2.19	0.589*	0.424*	3.53
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	0.325*	< 1	N/A
	3/4/2014	5.89	2.36	1.74	< 1	3.51
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	5.03	1.25	0.836*	< 1	4.01
	4/7/2015	5.16	2.04	1.01	< 1	3.17
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	5.18	3.21	< 1	< 1	3.73
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	3.39	3.26	< 1	< 1	2.25
	7/13/2016	5.06	6.17	0.147*	< 1	2.76
	7/13/2016	N/A	N/A	N/A	N/A	2.72
	4/5/2017	2.78	4.93	0.172*	0.238*	2.06
	9/19/2017	3.95	4.75	1.83	0.441*	3.75
	9/19/2017	N/A	4.51	N/A	N/A	N/A
	3/5/2018	2.77	3.66	0.503*	< 1	3.53
	8/7/2018	3.23	2.3	0.537*	< 1	2.97
	8/7/2018	N/A	N/A	N/A	N/A	2.59
	3/19/2019	3.49	4.62	1.77	< 1	1.43
	3/19/2019	N/A	N/A	1.74	N/A	N/A
	8/27/2019	4.03	4.22	1.76	< 1	2.88
	8/27/2019	N/A	N/A	N/A	N/A	2.66
	3/3/2020	3.48	4.03	2.16	< 1	1.04
	9/22/2020	3.63	4.08	1.6	< 1	2.42
	9/22/2020	4.23	N/A	N/A	N/A	N/A
	5/18/2021	3.97	3.12	1.61	< 1	1.59
	5/18/2021	3.41	N/A	N/A	N/A	N/A
	9/14/2021	3.11	0.885*	0.785*	< 1	2.23
	4/26/2022	3.54	1.51	0.61*	< 1	0.936*
	4/26/2022	N/A	N/A	0.574*	N/A	N/A
	9/13/2022	3.64	1.23	N/A	< 1	2.28
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	3.59	1.87	0.352*	< 1	0.303*
	8/15/2023	4.38	1.17	0.441*	< 1	1.8
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	7/31/2009	N/A	N/A	N/A	N/A	< 5
	9/3/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	N/A	N/A	N/A	N/A	< 5

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	3/15/2010	< 5	< 5	N/A	N/A	< 5
	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 5	< 5	N/A	N/A	< 5
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	3/22/2012	< 5	< 5	N/A	N/A	< 5
	8/20/2012	< 5	< 5	N/A	N/A	< 5
	3/19/2013	< 5	< 5	N/A	N/A	< 5
	7/17/2013	N/A	N/A	< 5	< 5	N/A
	8/22/2013	< 5	< 5	< 5	< 5	< 5
	8/22/2013	N/A	N/A	< 5	N/A	N/A
	10/30/2013	N/A	N/A	< 5	< 5	N/A
	2/11/2014	N/A	N/A	< 5	< 5	N/A
	3/4/2014	< 5	< 5	< 5	< 5	< 5
	3/4/2014	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	< 5	< 5	< 5	< 5
	4/7/2015	< 5	< 5	< 5	< 5	< 5
	7/28/2015	N/A	N/A	< 5	< 5	N/A
	9/22/2015	< 5	< 5	< 5	< 5	< 5
	9/22/2015	N/A	N/A	N/A	< 5	N/A
	3/29/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	N/A	N/A	N/A	N/A	< 5
	4/5/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	N/A	< 5	N/A	N/A	N/A
	3/5/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	N/A	N/A	N/A	N/A	< 5
	3/19/2019	< 5	< 5	< 5	< 5	< 5
	3/19/2019	N/A	N/A	< 5	N/A	N/A
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	N/A	N/A	N/A	N/A	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	N/A	N/A	N/A	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	N/A	N/A	N/A	N/A
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	4/26/2022	N/A	N/A	< 5	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5
	9/13/2022	N/A	N/A	N/A	< 5	N/A
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	< 5	< 5	< 5	< 5	< 5
Ethylbenzene, ug/L (CAS NO - 100-41-4)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Ethylbenzene, ug/L (CAS NO - 100-41-4)	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	0.272*	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	0.671*	< 1	N/A
	9/22/2015	< 1	< 1	0.626*	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	0.309*	< 1	< 1
	9/19/2017	< 1	< 1	0.61*	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	0.77*	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	0.563*	< 1	< 1
Iodomethane, ug/L (CAS NO - 74-88-4)	7/31/2009	N/A	N/A	N/A	N/A	< 50
	9/3/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	< 20	< 20	N/A	N/A	< 20
	12/16/2009	N/A	N/A	N/A	N/A	< 20
	3/15/2010	< 10	< 10	N/A	N/A	< 10
	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 50	< 50	N/A	N/A	< 50
	6/30/2010	N/A	N/A	N/A	N/A	< 50
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	< 10

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Iodomethane, ug/L (CAS NO - 74-88-4)	8/20/2012	< 10	< 10	N/A	N/A	< 10
	3/19/2013	< 10	< 10	N/A	N/A	< 10
	7/17/2013	N/A	N/A	< 10	< 10	N/A
	8/22/2013	< 10	< 10	< 10	< 10	< 10
	8/22/2013	N/A	N/A	< 10	N/A	N/A
	10/30/2013	N/A	N/A	< 10	< 10	N/A
	2/11/2014	N/A	N/A	< 10	< 10	N/A
	3/4/2014	< 10	< 10	< 10	< 10	< 10
	3/4/2014	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	< 10	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	< 10	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	< 10	< 10	< 10	< 10	1.53*
	7/13/2016	N/A	N/A	N/A	N/A	1*
	4/5/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	N/A	< 10	N/A	N/A	N/A
	3/5/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	< 10	< 10	< 10	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	< 10	< 10	< 10	< 10	< 10
Methylene Bromide, ug/L (CAS NO - 74-95-3)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 2	< 2	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Methylene Bromide, ug/L (CAS NO - 74-95-3)	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
Methylene Chloride, ug/L (CAS NO - 75-09-2)	7/31/2009	N/A	N/A	N/A	N/A	< 5
	9/3/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	N/A	N/A	N/A	N/A	< 5
	3/15/2010	< 5	< 5	N/A	N/A	< 5
	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 5	< 5	N/A	N/A	< 5
	3/8/2011	< 5	< 5	N/A	N/A	< 5
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	3/22/2012	< 5	< 5	N/A	N/A	< 5
	8/20/2012	< 5	< 5	N/A	N/A	< 5
	3/19/2013	< 5	< 5	N/A	N/A	< 5
	7/17/2013	N/A	N/A	< 5	< 5	N/A
	8/22/2013	0.445*	0.603*	0.264*	< 5	< 5
	8/22/2013	N/A	N/A	0.339*	N/A	N/A
	10/30/2013	N/A	N/A	< 5	< 5	N/A
	2/11/2014	N/A	N/A	< 5	< 5	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Methylene Chloride, ug/L (CAS NO - 75-09-2)	3/4/2014	< 5	0.227*	< 5	< 5	< 5
	3/4/2014	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	1*	< 5	< 5	< 5
	4/7/2015	< 5	0.302*	< 5	< 5	< 5
	7/28/2015	N/A	N/A	0.402*	1.42*	N/A
	9/22/2015	0.283*	0.661*	< 5	0.288*	< 5
	9/22/2015	N/A	N/A	N/A	0.339*	N/A
	3/29/2016	< 5	0.367*	< 5	< 5	< 5
	7/13/2016	0.268*	0.714*	0.201*	0.291*	0.345*
	7/13/2016	N/A	N/A	N/A	N/A	0.366*
	4/5/2017	0.251*	0.461*	0.257*	< 5	0.203*
	9/19/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	N/A	< 5	N/A	N/A	N/A
	3/5/2018	< 5	0.307*	< 5	0.291*	< 5
	8/7/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	N/A	N/A	N/A	N/A	< 5
	3/19/2019	< 5	< 5	< 5	< 5	< 5
	3/19/2019	N/A	N/A	< 5	N/A	N/A
	8/27/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	N/A	N/A	N/A	N/A	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	N/A	N/A	N/A	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	N/A	N/A	N/A	N/A
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	4/26/2022	N/A	N/A	< 5	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5
	9/13/2022	N/A	N/A	N/A	< 5	N/A
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	< 5	< 5	< 5	< 5	< 5
Styrene, ug/L (CAS NO - 100-42-5)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 2	< 2	N/A	N/A	< 2
	12/16/2009	N/A	N/A	N/A	N/A	< 2
	3/15/2010	< 5	< 5	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 4	< 4	N/A	N/A	< 4
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Styrene, ug/L (CAS NO - 100-42-5)	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	< 1	0.224*	< 1
	8/22/2013	N/A	N/A	0.269*	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	0.743*	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	< 1	0.22*	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	< 1	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	< 1	< 1	0.531*	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
Toluene, ug/L (CAS NO - 108-88-3)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	< 1	0.204*	0.177*	0.201*
	8/22/2013	N/A	N/A	0.2*	N/A	N/A
	10/30/2013	N/A	N/A	0.346*	0.366*	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	0.29*	< 1	< 1
	4/7/2015	< 1	< 1	0.204*	< 1	< 1
	7/28/2015	N/A	N/A	0.694*	< 1	N/A
	9/22/2015	< 1	0.324*	0.381*	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	< 1	< 1	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	< 1	0.213*	0.161*	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Toluene, ug/L (CAS NO - 108-88-3)	9/19/2017	< 1	< 1	< 1	< 1	< 1
	9/19/2017	N/A	< 1	N/A	N/A	N/A
	3/5/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	< 1	< 1	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	< 1	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	< 1	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	< 1	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	< 1	< 1	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	< 1	< 1	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	< 1	< 1	N/A	N/A	< 1
	3/8/2011	< 1	< 1	N/A	N/A	< 1
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	3/22/2012	< 1	< 1	N/A	N/A	< 1
	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	< 1	0.445*	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	< 1	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	0.255*	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	0.474*	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	0.331*	< 1	< 1	< 1
	7/13/2016	0.211*	0.386*	< 1	< 1	< 1
	7/13/2016	N/A	N/A	N/A	N/A	< 1
	4/5/2017	< 1	0.409*	< 1	< 1	< 1
	9/19/2017	< 1	0.441*	0.223*	< 1	< 1
	9/19/2017	N/A	0.459*	N/A	N/A	N/A
	3/5/2018	< 1	0.515*	< 1	< 1	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	8/7/2018	< 1	0.374*	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	0.39*	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	0.337*	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	0.336*	< 1	< 1	< 1
	9/22/2020	< 1	0.444*	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	0.383*	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A
	9/14/2021	< 1	0.277*	< 1	< 1	< 1
	4/26/2022	< 1	0.374*	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	0.342*	< 1	< 1	< 1
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	7/31/2009	N/A	N/A	N/A	N/A	< 5
	9/3/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	< 5	< 5	N/A	N/A	< 5
	12/16/2009	N/A	N/A	N/A	N/A	< 5
	3/15/2010	< 5	< 5	N/A	N/A	< 5
	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	< 5
	6/30/2010	N/A	N/A	N/A	N/A	< 5
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 5	< 5	N/A	N/A	< 5
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	3/22/2012	< 5	< 5	N/A	N/A	< 5
	8/20/2012	< 5	< 5	N/A	N/A	< 5
	3/19/2013	< 5	< 5	N/A	N/A	< 5
	7/17/2013	N/A	N/A	< 5	< 5	N/A
	8/22/2013	< 5	< 5	< 5	< 5	< 5
	8/22/2013	N/A	N/A	< 5	N/A	N/A
	10/30/2013	N/A	N/A	< 5	< 5	N/A
	2/11/2014	N/A	N/A	< 5	< 5	N/A
	3/4/2014	< 5	< 5	< 5	< 5	< 5
	3/4/2014	N/A	N/A	N/A	< 5	N/A
	10/28/2014	< 5	< 5	< 5	< 5	< 5
	4/7/2015	< 5	< 5	< 5	< 5	< 5
	7/28/2015	N/A	N/A	< 5	< 5	N/A
	9/22/2015	< 5	< 5	< 5	< 5	< 5
	9/22/2015	N/A	N/A	N/A	< 5	N/A
	3/29/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	< 5	< 5	< 5	< 5	< 5
	7/13/2016	N/A	N/A	N/A	N/A	< 5
	4/5/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	< 5	< 5	< 5	< 5	< 5
	9/19/2017	N/A	< 5	N/A	N/A	N/A
	3/5/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	< 5	< 5	< 5	< 5	< 5
	8/7/2018	N/A	N/A	N/A	N/A	< 5
	3/19/2019	< 5	< 5	< 5	< 5	< 5
	3/19/2019	N/A	N/A	< 5	N/A	N/A

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Summary of Groundwater Chemistry
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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	8/27/2019	< 5	< 5	< 5	< 5	< 5
	8/27/2019	N/A	N/A	N/A	N/A	< 5
	3/3/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	< 5	< 5	< 5	< 5
	9/22/2020	< 5	N/A	N/A	N/A	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
	5/18/2021	< 5	N/A	N/A	N/A	N/A
	9/14/2021	< 5	< 5	< 5	< 5	< 5
	4/26/2022	< 5	< 5	< 5	< 5	< 5
	4/26/2022	N/A	N/A	< 5	N/A	N/A
	9/13/2022	< 5	< 5	N/A	< 5	< 5
	9/13/2022	N/A	N/A	N/A	< 5	N/A
	3/21/2023	< 5	< 5	< 5	< 5	< 5
	8/15/2023	< 5	< 5	< 5	< 5	< 5
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	7/31/2009	N/A	N/A	N/A	N/A	< 10
	9/3/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	< 10	< 10	N/A	N/A	< 10
	12/16/2009	N/A	N/A	N/A	N/A	< 10
	3/15/2010	< 10	< 10	N/A	N/A	< 10
	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	< 10
	6/30/2010	N/A	N/A	N/A	N/A	< 10
	9/2/2010	< 10	< 10	N/A	N/A	< 10
	3/8/2011	< 10	< 10	N/A	N/A	< 10
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	< 10
	8/20/2012	< 10	< 10	N/A	N/A	< 10
	3/19/2013	< 10	< 10	N/A	N/A	< 10
	7/17/2013	N/A	N/A	< 10	< 10	N/A
	8/22/2013	< 10	< 10	< 10	< 10	< 10
	8/22/2013	N/A	N/A	< 10	N/A	N/A
	10/30/2013	N/A	N/A	< 10	< 10	N/A
	2/11/2014	N/A	N/A	< 10	< 10	N/A
	3/4/2014	< 10	< 10	< 10	< 10	< 10
	3/4/2014	N/A	N/A	N/A	< 10	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	< 10	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	< 10	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	N/A	N/A	N/A	N/A	< 10
	4/5/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	N/A	< 10	N/A	N/A	N/A
	3/5/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	< 10	< 10	< 10	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	9/22/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	< 10	< 10	< 10	< 10	< 10
Trichloroethene, ug/L (CAS NO - 79-01-6)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	2.77	1	N/A	N/A	< 1
	12/16/2009	2.61	1.25	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	2.05	1.49	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	2.38	1.35	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	1.01	1.38	N/A	N/A	< 1
	3/8/2011	< 1	1.31	N/A	N/A	< 1
	9/14/2011	1.07	1.04	N/A	N/A	< 1
	3/22/2012	< 1	1.37	N/A	N/A	< 1
	8/20/2012	< 1	1.6	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	0.513*	0.56*	< 1	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	< 1	0.477*	< 1	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	< 1	0.385*	< 1	< 1	0.312*
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	< 1	1.3	< 1	< 1	< 1
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	0.28*	1.13	< 1	< 1	< 1
	7/13/2016	0.335*	2.05	< 1	< 1	0.229*
	7/13/2016	N/A	N/A	N/A	N/A	0.259*
	4/5/2017	< 1	1.72	< 1	< 1	< 1
	9/19/2017	< 1	1.4	0.433*	0.281*	0.384*
	9/19/2017	N/A	1.43	N/A	N/A	N/A
	3/5/2018	< 1	0.985*	< 1	< 1	< 1
	8/7/2018	< 1	0.669*	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	< 1	1.58	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	0.794*	< 1	< 1	< 1
	8/27/2019	N/A	N/A	N/A	N/A	< 1
	3/3/2020	< 1	0.752*	< 1	< 1	< 1
	9/22/2020	0.525*	0.574*	< 1	< 1	< 1
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	< 1	0.471*	< 1	< 1	< 1
	5/18/2021	< 1	N/A	N/A	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Trichloroethene, ug/L (CAS NO - 79-01-6)	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	< 1	< 1	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	< 1	< 1	N/A	< 1	< 1
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	< 1	< 1	< 1	< 1	< 1
	8/15/2023	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	7/31/2009	N/A	N/A	N/A	N/A	< 4
	9/3/2009	< 4	< 4	N/A	N/A	< 4
	12/16/2009	< 4	< 4	N/A	N/A	< 4
	12/16/2009	N/A	N/A	N/A	N/A	< 4
	3/15/2010	< 4	< 4	N/A	N/A	< 4
	3/15/2010	N/A	N/A	N/A	N/A	< 4
	6/30/2010	< 4	< 4	N/A	N/A	< 4
	6/30/2010	N/A	N/A	N/A	N/A	< 4
	9/2/2010	< 4	< 4	N/A	N/A	< 4
	3/8/2011	< 4	< 4	N/A	N/A	< 4
	9/14/2011	< 4	< 4	N/A	N/A	< 4
	3/22/2012	< 4	< 4	N/A	N/A	< 4
	8/20/2012	< 5	< 5	N/A	N/A	< 4
	3/19/2013	< 4	< 4	N/A	N/A	< 4
	7/17/2013	N/A	N/A	< 4	< 4	N/A
	8/22/2013	< 4	< 4	< 4	< 4	< 4
	8/22/2013	N/A	N/A	< 4	N/A	N/A
	10/30/2013	N/A	N/A	< 4	< 4	N/A
	2/11/2014	N/A	N/A	< 4	< 4	N/A
	3/4/2014	< 4	< 4	< 4	< 4	< 4
	3/4/2014	N/A	N/A	N/A	< 4	N/A
	10/28/2014	< 4	< 4	< 4	< 4	< 4
	4/7/2015	< 4	< 4	< 4	< 4	< 4
	7/28/2015	N/A	N/A	< 4	< 4	N/A
	9/22/2015	< 4	< 4	< 4	< 4	< 4
	9/22/2015	N/A	N/A	N/A	< 4	N/A
	3/29/2016	< 4	< 4	< 4	< 4	< 4
	7/13/2016	< 4	< 4	< 4	< 4	< 4
	7/13/2016	N/A	N/A	N/A	N/A	< 4
	4/5/2017	< 4	< 4	< 4	< 4	< 4
	9/19/2017	< 4	< 4	< 4	< 4	< 4
	9/19/2017	N/A	< 4	N/A	N/A	N/A
	3/5/2018	< 4	< 4	< 4	< 4	< 4
	8/7/2018	< 4	< 4	< 4	< 4	< 4
	8/7/2018	N/A	N/A	N/A	N/A	< 4
	3/19/2019	< 4	< 4	< 4	< 4	< 4
	3/19/2019	N/A	N/A	< 4	N/A	N/A
	8/27/2019	< 4	< 4	< 4	< 4	< 4
	8/27/2019	N/A	N/A	N/A	N/A	< 4
	3/3/2020	< 4	< 4	< 4	< 4	< 4
	9/22/2020	< 4	< 4	< 4	< 4	< 4
	9/22/2020	< 4	N/A	N/A	N/A	N/A
	5/18/2021	< 4	< 4	< 4	< 4	< 4
	5/18/2021	< 4	N/A	N/A	N/A	N/A
	9/14/2021	< 4	< 4	< 4	< 4	< 4
	4/26/2022	< 4	< 4	< 4	< 4	< 4
	4/26/2022	N/A	N/A	< 4	N/A	N/A

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	9/13/2022	< 4	< 4	N/A	< 4	< 4
	9/13/2022	N/A	N/A	N/A	< 4	N/A
	3/21/2023	< 4	< 4	< 4	< 4	< 4
	8/15/2023	< 4	< 4	< 4	< 4	< 4
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	7/31/2009	N/A	N/A	N/A	N/A	< 2
	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 2	< 2	N/A	N/A	N/A
	9/14/2011	< 2	< 2	N/A	N/A	< 2
	3/22/2012	< 10	< 10	N/A	N/A	< 10
	8/20/2012	< 10	< 10	N/A	N/A	< 4
	3/19/2013	< 2	< 2	N/A	N/A	< 2
	7/17/2013	N/A	N/A	< 2	< 2	N/A
	8/22/2013	< 2	< 2	< 2	< 2	< 2
	8/22/2013	N/A	N/A	< 2	N/A	N/A
	10/30/2013	N/A	N/A	< 2	< 2	N/A
	2/11/2014	N/A	N/A	< 2	< 2	N/A
	3/4/2014	< 2	< 2	< 2	< 2	< 2
	3/4/2014	N/A	N/A	N/A	< 2	N/A
	10/28/2014	< 10	< 10	< 10	< 10	< 10
	4/7/2015	< 10	< 10	< 10	< 10	< 10
	7/28/2015	N/A	N/A	< 10	< 10	N/A
	9/22/2015	< 10	< 10	< 10	< 10	< 10
	9/22/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	< 10	< 10	< 10	< 10	< 10
	7/13/2016	N/A	N/A	N/A	N/A	< 10
	4/5/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	< 10	< 10	< 10	< 10	< 10
	9/19/2017	N/A	< 10	N/A	N/A	N/A
	3/5/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	< 10	< 10	< 10	< 10	< 10
	8/7/2018	N/A	N/A	N/A	N/A	< 10
	3/19/2019	< 10	< 10	< 10	< 10	< 10
	3/19/2019	N/A	N/A	< 10	N/A	N/A
	8/27/2019	< 10	< 10	< 10	< 10	< 10
	8/27/2019	N/A	N/A	N/A	N/A	< 10
	3/3/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	< 10	< 10	< 10	< 10
	9/22/2020	< 10	N/A	N/A	N/A	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
	5/18/2021	< 10	N/A	N/A	N/A	N/A
	9/14/2021	< 10	< 10	< 10	< 10	< 10
	4/26/2022	< 10	< 10	< 10	< 10	< 10
	4/26/2022	N/A	N/A	< 10	N/A	N/A
	9/13/2022	< 10	< 10	N/A	< 10	< 10
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	< 10	< 10	< 10	< 10	< 10
	8/15/2023	< 10	< 10	< 10	< 10	< 10
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	7/31/2009	N/A	N/A	N/A	N/A	< 1
	9/3/2009	**1.76**	**5.72**	N/A	N/A	< 1
	12/16/2009	**1.81**	**7.82**	N/A	N/A	< 1
	12/16/2009	N/A	N/A	N/A	N/A	< 1
	3/15/2010	**1.99**	**6.61**	N/A	N/A	< 1
	3/15/2010	N/A	N/A	N/A	N/A	< 1

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	6/30/2010	**2.22**	**6.51**	N/A	N/A	< 1
	6/30/2010	N/A	N/A	N/A	N/A	< 1
	9/2/2010	**1.42**	**6.61**	N/A	N/A	< 1
	3/8/2011	**1.25**	**6.65**	N/A	N/A	< 1
	9/14/2011	**1.42**	**5.54**	N/A	N/A	< 1
	3/22/2012	< 1	**4.64**	N/A	N/A	< 1
	8/20/2012	< 4	**7.55**	N/A	N/A	< 1
	3/19/2013	< 1	**3.34**	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A
	8/22/2013	0.961*	**1.94**	0.234*	< 1	< 1
	8/22/2013	N/A	N/A	< 1	N/A	N/A
	10/30/2013	N/A	N/A	< 1	< 1	N/A
	2/11/2014	N/A	N/A	< 1	< 1	N/A
	3/4/2014	0.965*	**2.82**	0.574*	< 1	< 1
	3/4/2014	N/A	N/A	N/A	< 1	N/A
	10/28/2014	< 1	< 1	< 1	< 1	< 1
	4/7/2015	0.746*	**2.25**	< 1	< 1	< 1
	7/28/2015	N/A	N/A	< 1	< 1	N/A
	9/22/2015	0.92*	**3.16**	< 1	< 1	0.476*
	9/22/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	0.867*	**1.97**	< 1	< 1	0.323*
	7/13/2016	**1.34**	**3.1**	< 1	< 1	0.355*
	7/13/2016	N/A	N/A	N/A	N/A	0.354*
	4/5/2017	0.772*	**2.59**	< 1	< 1	0.309*
	9/19/2017	0.93*	**2.5**	0.356*	< 1	0.532*
	9/19/2017	N/A	**2.57**	N/A	N/A	N/A
	3/5/2018	0.816*	**2.04**	< 1	< 1	0.472*
	8/7/2018	0.738*	**1.45**	< 1	< 1	< 1
	8/7/2018	N/A	N/A	N/A	N/A	< 1
	3/19/2019	**1.2**	**2.46**	< 1	< 1	< 1
	3/19/2019	N/A	N/A	< 1	N/A	N/A
	8/27/2019	< 1	**2.07**	0.241*	< 1	0.374*
	8/27/2019	N/A	N/A	N/A	N/A	0.297*
	3/3/2020	0.963*	**2.21**	< 1	< 1	< 1
	9/22/2020	**1.21**	**2.36**	< 1	< 1	0.296*
	9/22/2020	< 1	N/A	N/A	N/A	N/A
	5/18/2021	**1.09**	**2.12**	0.274*	< 1	< 1
	5/18/2021	**1.09**	N/A	N/A	N/A	N/A
	9/14/2021	< 1	< 1	< 1	< 1	< 1
	4/26/2022	0.855*	**1.63**	< 1	< 1	< 1
	4/26/2022	N/A	N/A	< 1	N/A	N/A
	9/13/2022	**1**	**1.52**	N/A	< 1	0.181*
	9/13/2022	N/A	N/A	N/A	< 1	N/A
	3/21/2023	0.774*	**1.78**	< 1	< 1	< 1
	8/15/2023	0.758*	**1.14**	< 1	< 1	< 1
Xylenes, total, ug/L (CAS NO - 1330-20-7)	7/31/2009	N/A	N/A	N/A	N/A	< 3
	9/3/2009	< 3	< 3	N/A	N/A	< 3
	12/16/2009	< 6	< 6	N/A	N/A	< 6
	12/16/2009	N/A	N/A	N/A	N/A	< 6
	3/15/2010	< 3	< 3	N/A	N/A	< 3
	3/15/2010	N/A	N/A	N/A	N/A	< 3
	6/30/2010	< 3	< 3	N/A	N/A	< 3
	6/30/2010	N/A	N/A	N/A	N/A	< 3
	9/2/2010	< 3	< 3	N/A	N/A	< 3
	3/8/2011	< 3	< 3	N/A	N/A	< 3

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Appendix I VOC Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Xylenes, total, ug/L (CAS NO - 1330-20-7)	9/14/2011	< 3	< 3	N/A	N/A	< 3
	3/22/2012	< 3	< 3	N/A	N/A	< 3
	8/20/2012	< 3	< 3	N/A	N/A	< 3
	3/19/2013	< 3	< 3	N/A	N/A	< 3
	7/17/2013	N/A	N/A	< 3	< 3	N/A
	8/22/2013	< 3	< 3	0.18*	0.172*	< 3
	8/22/2013	N/A	N/A	0.348*	N/A	N/A
	10/30/2013	N/A	N/A	< 3	0.342*	N/A
	2/11/2014	N/A	N/A	< 3	< 3	N/A
	3/4/2014	< 3	< 3	< 3	< 3	< 3
	3/4/2014	N/A	N/A	N/A	< 3	N/A
	10/28/2014	< 3	< 3	0.396*	< 3	< 3
	4/7/2015	< 3	< 3	< 3	< 3	< 3
	7/28/2015	N/A	N/A	1.02*	< 3	N/A
	9/22/2015	< 3	0.202*	0.953*	< 3	< 3
	9/22/2015	N/A	N/A	N/A	< 3	N/A
	3/29/2016	< 3	< 3	< 3	< 3	< 3
	7/13/2016	< 3	0.15*	0.41*	< 3	< 3
	7/13/2016	N/A	N/A	N/A	N/A	< 3
	4/5/2017	< 3	< 3	0.516*	< 3	< 3
	9/19/2017	< 3	< 3	1.03*	< 3	< 3
	9/19/2017	N/A	< 3	N/A	N/A	N/A
	3/5/2018	< 3	< 3	0.335*	< 3	< 3
	8/7/2018	< 3	< 3	< 3	< 3	< 3
	8/7/2018	N/A	N/A	N/A	N/A	< 3
	3/19/2019	< 3	< 3	< 3	< 3	< 3
	3/19/2019	N/A	N/A	< 3	N/A	N/A
	8/27/2019	< 3	< 3	< 3	< 3	< 3
	8/27/2019	N/A	N/A	N/A	N/A	< 3
	3/3/2020	< 3	< 3	< 3	< 3	< 3
	9/22/2020	< 3	< 3	< 3	0.53*	< 3
	9/22/2020	< 3	N/A	N/A	N/A	N/A
	5/18/2021	< 3	< 3	0.492*	< 3	< 3
	5/18/2021	< 3	N/A	N/A	N/A	N/A
	9/14/2021	< 3	< 3	< 3	< 3	< 3
	4/26/2022	< 3	< 3	< 3	< 3	< 3
	4/26/2022	N/A	N/A	< 3	N/A	N/A
	9/13/2022	< 3	< 3	N/A	< 3	< 3
	9/13/2022	N/A	N/A	N/A	< 3	N/A
	3/21/2023	< 3	< 3	0.42*	< 3	< 3
	8/15/2023	< 3	< 3	< 3	< 3	< 3
M&P-Xylene, ug/L (CAS NO - 179601-23-1)	8/20/2012	< 2	< 2	N/A	N/A	< 2
	3/19/2013	< 2	< 2	N/A	N/A	< 2
	7/17/2013	N/A	N/A	< 2	< 2	N/A
O-Xylene, ug/L (CAS NO - 95-47-6)	8/20/2012	< 1	< 1	N/A	N/A	< 1
	3/19/2013	< 1	< 1	N/A	N/A	< 1
	7/17/2013	N/A	N/A	< 1	< 1	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,1-Dichloropropene, ug/L (CAS NO - 563-58-6)	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	4/7/2015	N/A	N/A	< 1	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	N/A	< 1
	7/13/2016	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
1,2,4,5-Tetrachlorobenzene, ug/L (CAS NO - 95-94-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
1,2,4-Trichlorobenzene, ug/L (CAS NO - 120-82-1)	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	N/A
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	4/7/2015	N/A	N/A	< 5	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 5	N/A
	3/29/2016	< 5	< 5	< 5	N/A	< 5
	7/13/2016	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
1,3,5-Trinitrobenzene, ug/L (CAS NO - 99-35-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
1,3-Dichlorobenzene, ug/L (CAS NO - 541-73-1)	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	4/7/2015	N/A	N/A	< 1	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	N/A	< 1
	7/13/2016	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane, ug/L (CAS NO - 142-28-9)	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	4/7/2015	N/A	N/A	< 1	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	N/A	< 1
	7/13/2016	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
1,4-Naphthoquinone, ug/L (CAS NO - 130-15-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
1,4-Phenylenediamine, ug/L (CAS NO - 106-50-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
1-Naphthylamine, ug/L (CAS NO - 134-32-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	3/15/2010	N/A	N/A	N/A	N/A	< 4
	6/30/2010	< 4	< 4	N/A	N/A	N/A
	9/14/2011	< 4	< 4	N/A	N/A	< 4
	4/7/2015	N/A	N/A	< 4	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 4	N/A
	3/29/2016	< 4	< 4	< 4	N/A	< 4
	7/13/2016	N/A	N/A	N/A	< 4	N/A
	5/18/2021	< 4	< 4	< 4	< 4	< 4
2,3,4,6-Tetrachlorophenol, ug/L (CAS NO - 58-90-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	3/15/2010	N/A	N/A	N/A	N/A	< 0.5
	6/30/2010	< 0.56	< 0.53	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	< 1.1
	4/7/2015	N/A	N/A	< 1.08	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 1.1	N/A
	3/29/2016	< 1.19	< 1.19	< 1.12	N/A	< 1.09
	7/13/2016	N/A	N/A	N/A	< 1.06	N/A
	5/18/2021	< 1.08	< 1.06	< 1.13	< 1.11	< 1.12
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	3/15/2010	N/A	N/A	N/A	N/A	< 0.5
	6/30/2010	< 0.56	< 0.53	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	< 1.1
	4/7/2015	N/A	N/A	< 1.08	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 1.1	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	3/29/2016	< 1.19	< 1.19	< 1.12	N/A	< 1.09
	7/13/2016	N/A	N/A	N/A	< 1.06	N/A
	5/18/2021	< 1.08	< 1.06	< 1.13	< 1.11	< 1.12
2,4,5-Trichlorophenol, ug/L (CAS NO - 95-95-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
2,4,6-Trichlorophenol, ug/L (CAS NO - 88-06-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
2,4-D [2C], ug/L (CAS NO - 94-75-7)	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1.1	< 1.1	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	< 1.1
	4/7/2015	N/A	N/A	< 1.08	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 1.1	N/A
	3/29/2016	< 1.19	< 1.19	< 1.12	N/A	< 1.09
	7/13/2016	N/A	N/A	N/A	< 1.06	N/A
	5/18/2021	< 1.08	< 1.06	< 1.13	**1.71**	< 1.12
	9/14/2021	N/A	N/A	N/A	< 5.56	N/A
	4/26/2022	N/A	N/A	N/A	0.551*	N/A
	3/21/2023	N/A	N/A	N/A	< 1.02	N/A
	8/15/2023	N/A	N/A	N/A	< 0.981	N/A
2,4-Dichlorophenol, ug/L (CAS NO - 120-83-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
2,4-Dimethylphenol, ug/L (CAS NO - 105-67-9)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	3/15/2010	N/A	N/A	N/A	N/A	< 20
	6/30/2010	< 20	< 20	N/A	N/A	N/A
	9/14/2011	< 20	< 20	N/A	N/A	< 20
	4/7/2015	N/A	N/A	< 20.4	N/A	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	7/28/2015	N/A	N/A	N/A	< 20.6	N/A
	3/29/2016	< 23.3	< 22.7	< 21.5	N/A	< 22.2
	7/13/2016	N/A	N/A	N/A	< 20.6	N/A
	5/18/2021	< 21.3	< 22.2	< 21.5	< 21.5	< 21.1
	9/14/2021	N/A	N/A	N/A	< 21.1	N/A
2,4-Dinitrotoluene, ug/L (CAS NO - 121-14-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2,6-Dichlorophenol, ug/L (CAS NO - 87-65-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2-Acetylaminofluorene, ug/L (CAS NO - 53-96-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2-Chloronaphthalene, ug/L (CAS NO - 91-58-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
2-Methylnaphthalene, ug/L (CAS NO - 91-57-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2-Methylphenol, ug/L (CAS NO - 95-48-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
2-Naphthylamine, ug/L (CAS NO - 91-59-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2-Nitroaniline, ug/L (CAS NO - 88-74-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
2-Nitrophenol, ug/L (CAS NO - 88-75-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 51	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 51.5	N/A
	3/29/2016	< 58.1	< 56.8	< 53.8	N/A	< 55.6
	7/13/2016	N/A	N/A	N/A	< 51.5	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
3/4-Methylphenol, ug/L (CAS NO - T-34MP)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	3.82*	N/A
	9/22/2015	< 10.2	< 10	N/A	N/A	N/A
	9/23/2015	N/A	< 10000	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	15.7	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
	4/26/2022	N/A	N/A	N/A	< 10	N/A
	9/13/2022	N/A	N/A	N/A	< 10	N/A
	3/21/2023	N/A	N/A	N/A	5.54*	N/A
	8/15/2023	N/A	N/A	N/A	3.46*	N/A
3-Chloropropene, ug/L (CAS NO - 107-05-1)	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 2	< 2	N/A	N/A	N/A
	9/14/2011	< 2	< 2	N/A	N/A	< 2
	4/7/2015	N/A	N/A	< 2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 2	N/A
	3/29/2016	< 2	< 2	< 2	N/A	< 2
	7/13/2016	N/A	N/A	N/A	< 2	N/A
	5/18/2021	< 2	< 2	< 2	< 2	< 2
3-Methylcholanthrene, ug/L (CAS NO - 56-49-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
3-Nitroaniline, ug/L (CAS NO - 99-09-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	34.3	30.2	N/A	N/A	N/A
	3/8/2011	< 10	< 10	N/A	N/A	N/A
	6/28/2011	< 11.1	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	N/A
	8/20/2012	< 10	< 10	N/A	N/A	N/A
	3/19/2013	< 10	< 10	N/A	N/A	N/A
	8/22/2013	< 10.2	< 10.2	N/A	N/A	N/A
	3/4/2014	< 10.2	< 10.5	N/A	N/A	N/A
	10/28/2014	< 10	< 10	N/A	N/A	N/A
	4/7/2015	< 10	< 10	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/22/2015	< 10.2	< 10	N/A	N/A	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
4,4`-DDD, ug/L (CAS NO - 72-54-8)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
4,4`-DDD, ug/L (CAS NO - 72-54-8)	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	0.00254*	N/A
	3/29/2016	0.00403*	0.00494*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	**0.0336**	N/A
	11/18/2016	N/A	N/A	N/A	< 0.0344	N/A
	3/7/2017	N/A	N/A	N/A	0.00403*	N/A
	4/5/2017	N/A	N/A	N/A	0.00568*	N/A
	9/19/2017	N/A	N/A	N/A	0.0123*	N/A
	3/5/2018	N/A	N/A	N/A	0.00267*	N/A
	8/7/2018	N/A	N/A	N/A	< 0.0344	N/A
	3/19/2019	N/A	N/A	N/A	< 0.0344	N/A
	8/27/2019	N/A	N/A	N/A	< 0.0327	N/A
	3/3/2020	N/A	N/A	N/A	0.00983*	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
4,4`-DDE, ug/L (CAS NO - 72-55-9)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	0.00257*	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00786*	0.00463*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
4,4`-DDT, ug/L (CAS NO - 50-29-3)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00673*	0.0128*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
4,6-Dinitro-2-methylphenol, ug/L (CAS NO - 534-52-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
4-Chloro-3-methylphenol, ug/L (CAS NO - 59-50-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
4-Chloroaniline, ug/L (CAS NO - 106-47-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	75.2	59.7	N/A	N/A	N/A
	3/8/2011	< 10	< 10	N/A	N/A	N/A
	6/28/2011	< 11.1	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	N/A
	8/20/2012	< 10	< 10	N/A	N/A	N/A
	3/19/2013	< 10	< 10	N/A	N/A	N/A
	8/22/2013	< 10.2	< 10.2	N/A	N/A	N/A
	3/4/2014	< 10.2	< 10.5	N/A	N/A	N/A
	10/28/2014	< 10	< 10	N/A	N/A	N/A
	4/7/2015	< 10	< 10	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/22/2015	< 10.2	< 10	N/A	N/A	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
4-Chlorophenyl phenyl ether, ug/L (CAS NO - 7005-72-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
4-Nitroaniline, ug/L (CAS NO - 100-01-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
4-Nitrophenol, ug/L (CAS NO - 100-02-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
5-Nitro-o-toluidine, ug/L (CAS NO - 99-55-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
7,12-Dimethylbenz [a] anthracene, ug/L (CAS NO - 57-97-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Acenaphthene, ug/L (CAS NO - 83-32-9)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Acenaphthylene, ug/L (CAS NO - 208-96-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Acetonitrile, ug/L (CAS NO - 75-05-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10000
	6/30/2010	< 10000	< 10000	N/A	N/A	N/A
	9/14/2011	< 10000	< 10000	N/A	N/A	< 10000
	4/7/2015	N/A	N/A	1130*	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10000	N/A
	3/29/2016	< 10000	< 10000	< 10000	N/A	< 10000
	7/13/2016	N/A	N/A	N/A	< 10000	N/A
	5/18/2021	< 10000	< 10000	< 10000	< 10000	< 10000
Acetophenone, ug/L (CAS NO - 98-86-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Acrolein, ug/L (CAS NO - 107-02-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	N/A	< 10
	7/13/2016	N/A	N/A	N/A	< 10	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Acrolein, ug/L (CAS NO - 107-02-8)	5/18/2021	< 10	< 10	< 10	< 10	< 10
Aldrin, ug/L (CAS NO - 309-00-2)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	< 0.0372	0.00658*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Anthracene, ug/L (CAS NO - 120-12-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Benzo [a] anthracene, ug/L (CAS NO - 56-55-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Benzo [a] pyrene, ug/L (CAS NO - 50-32-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	0.702*
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Benzo [b] fluoranthene, ug/L (CAS NO - 205-99-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Benzo [g,h,i] perylene, ug/L (CAS NO - 191-24-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Benzo [k] fluoranthene, ug/L (CAS NO - 207-08-9)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Benzo [k] fluoranthene, ug/L (CAS NO - 207-08-9)	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Benzyl alcohol, ug/L (CAS NO - 100-51-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	20	15.6	N/A	N/A	N/A
	3/8/2011	< 10	< 10	N/A	N/A	N/A
	6/28/2011	< 11.1	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	N/A
	8/20/2012	< 10	< 10	N/A	N/A	N/A
	3/19/2013	< 10	< 10	N/A	N/A	N/A
	8/22/2013	< 10.2	< 10.2	N/A	N/A	N/A
	3/4/2014	< 10.2	< 10.5	N/A	N/A	N/A
	10/28/2014	< 10	< 10	N/A	N/A	N/A
	4/7/2015	< 10	< 10	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/22/2015	< 10.2	< 10	N/A	N/A	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Alpha-BHC, ug/L (CAS NO - 319-84-6)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00727*	0.00792*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	0.0164*	< 0.034	< 0.0337	< 0.0348	< 0.039
Beta-BHC, ug/L (CAS NO - 319-85-7)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.032*	0.0116*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Delta-BHC, ug/L (CAS NO - 319-86-8)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.0111*	0.0118*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Gamma-BHC [Lindane], ug/L (CAS NO - 58-89-9)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.0106*	< 0.0356	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Bis[2-chloroethyl]ether, ug/L (CAS NO - 111-44-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Bis[2-chloroisopropyl]ether, ug/L (CAS NO - 108-60-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Bis[2-ethylhexyl]phthalate, ug/L (CAS NO - 117-81-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	1.67*	N/A	N/A
	7/28/2015	N/A	N/A	N/A	1.75*	N/A
	3/29/2016	1.28*	1.19*	1.14*	N/A	1.2*
	7/13/2016	N/A	N/A	N/A	0.809*	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Butyl benzyl phthalate, ug/L (CAS NO - 85-68-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Chlordane, ug/L (CAS NO - 57-74-9)	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 2	< 2	N/A	N/A	N/A
	9/14/2011	< 2	< 2	N/A	N/A	< 2
	4/7/2015	N/A	N/A	< 2.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 2.2	N/A
	3/29/2016	< 2.33	< 2.22	< 2.17	N/A	< 2.33
	7/13/2016	N/A	N/A	N/A	< 2.04	N/A
	5/18/2021	< 2.11	< 2.13	< 2.11	< 2.17	< 2.44
Chlorobenzilate, ug/L (CAS NO - 510-15-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Chloroprene, ug/L (CAS NO - 126-99-8)	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Chloroprene, ug/L (CAS NO - 126-99-8)	9/14/2011	< 1	< 1	N/A	N/A	< 1
	4/7/2015	N/A	N/A	< 1	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 1	N/A
	3/29/2016	< 1	< 1	< 1	N/A	< 1
	7/13/2016	N/A	N/A	N/A	< 1	N/A
	5/18/2021	< 1	< 1	< 1	< 1	< 1
Chrysene, ug/L (CAS NO - 218-01-9)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Cyanide, mg/L (CAS NO - 57-12-5)	3/15/2010	N/A	N/A	N/A	N/A	< 0.01
	6/30/2010	< 0.01	< 0.01	N/A	N/A	N/A
	9/14/2011	< 0.01	< 0.01	N/A	N/A	< 0.01
	4/7/2015	N/A	N/A	< 0.01	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.01	N/A
	3/29/2016	< 0.01	< 0.01	< 0.01	N/A	< 0.01
	7/13/2016	N/A	N/A	N/A	< 0.01	N/A
	5/18/2021	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Diallate [cis or trans], ug/L (CAS NO - 2303-16-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Dibenz [a,h] anthracene, ug/L (CAS NO - 53-70-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	0.57*	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Dibenzofuran, ug/L (CAS NO - 132-64-9)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Dichlorodifluoromethane, ug/L (CAS NO - 75-71-8)	3/15/2010	N/A	N/A	N/A	N/A	< 3
	6/30/2010	< 3	< 3	N/A	N/A	N/A
	9/14/2011	< 3	< 3	N/A	N/A	< 3
	4/7/2015	N/A	N/A	< 3	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 3	N/A
	3/29/2016	0.475*	0.662*	< 3	N/A	0.363*
	7/13/2016	N/A	N/A	N/A	< 3	N/A
	5/18/2021	< 3	< 3	< 3	< 3	< 3

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Dieldrin, ug/L (CAS NO - 60-57-1)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00947*	0.00778*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Diethyl phthalate, ug/L (CAS NO - 84-66-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	0.43*	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Dimethoate, ug/L (CAS NO - 60-51-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Dimethyl phthalate, ug/L (CAS NO - 131-11-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Dimethylaminoazobenzene, ug/L (CAS NO - 60-11-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Di-n-butyl phthalate, ug/L (CAS NO - 84-74-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 20.4	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 20.6	N/A
	3/29/2016	2.52*	< 22.7	2.32*	N/A	2.4*
	7/13/2016	N/A	N/A	N/A	< 20.6	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	5/18/2021	< 21.3	< 22.2	< 21.5	< 21.5	< 21.1
Dinoseb, ug/L (CAS NO - 88-85-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Diphenylamine, ug/L (CAS NO - 122-39-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Disulfoton, ug/L (CAS NO - 298-04-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Endosulfan I, ug/L (CAS NO - 959-98-8)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00865*	< 0.0356	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	0.0132*	< 0.034	< 0.0337	< 0.0348	< 0.039
Endosulfan II, ug/L (CAS NO - 33213-65-9)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	< 0.0372	< 0.0356	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Endosulfan sulfate, ug/L (CAS NO - 1031-07-8)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00455*	< 0.0356	< 0.0348	N/A	0.00426*
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Endrin, ug/L (CAS NO - 72-20-8)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00797*	0.0069*	< 0.0348	N/A	0.00259*

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Endrin, ug/L (CAS NO - 72-20-8)	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Endrin aldehyde, ug/L (CAS NO - 7421-93-4)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	0.0101*	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	< 0.0372	< 0.0356	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Ethyl Methacrylate, ug/L (CAS NO - 97-63-2)	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 5	< 5	N/A	N/A	N/A
	9/14/2011	< 2	< 2	N/A	N/A	< 2
	4/7/2015	N/A	N/A	< 2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 2	N/A
	3/29/2016	< 2	< 2	< 2	N/A	< 2
	7/13/2016	N/A	N/A	N/A	< 2	N/A
	5/18/2021	< 2	< 2	< 2	< 2	< 2
Ethyl Methanesulfonate, ug/L (CAS NO - 62-50-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Famphur, ug/L (CAS NO - 52-85-7)	3/15/2010	N/A	N/A	N/A	N/A	< 20
	6/30/2010	< 20	< 20	N/A	N/A	N/A
	9/14/2011	< 20	< 20	N/A	N/A	< 20
	4/7/2015	N/A	N/A	< 20.4	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 20.6	N/A
	3/29/2016	< 23.3	< 22.7	< 21.5	N/A	< 22.2
	7/13/2016	N/A	N/A	N/A	< 20.6	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Fluoranthene, ug/L (CAS NO - 206-44-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Fluorene, ug/L (CAS NO - 86-73-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Heptachlor, ug/L (CAS NO - 76-44-8)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A

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Heptachlor, ug/L (CAS NO - 76-44-8)	3/29/2016	< 0.0372	< 0.0356	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Heptachlor Epoxide, ug/L (CAS NO - 1024-57-3)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	0.00871*	0.0127*	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	< 0.0327	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Hexachlorobenzene, ug/L (CAS NO - 118-74-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Hexachlorobutadiene, ug/L (CAS NO - 87-68-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Hexachlorocyclopentadiene, ug/L (CAS NO - 77-47-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 20.4	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 20.6	N/A
	3/29/2016	< 23.3	< 22.7	< 21.5	N/A	< 22.2
	7/13/2016	N/A	N/A	N/A	< 20.6	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Hexachloroethane, ug/L (CAS NO - 67-72-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Hexachloropropene, ug/L (CAS NO - 1888-71-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Indeno [1,2,3-cd] pyrene, ug/L (CAS NO - 193-39-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Indeno [1,2,3-cd] pyrene, ug/L (CAS NO - 193-39-5)	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Isobutanol, mg/L (CAS NO - 78-83-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	N/A	< 10
	7/13/2016	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
Isodrin, ug/L (CAS NO - 465-73-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Isophorone, ug/L (CAS NO - 78-59-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Isosafrole, ug/L (CAS NO - 120-58-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Kepone, ug/L (CAS NO - 143-50-0)	3/15/2010	N/A	N/A	N/A	N/A	< 20
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Methacrylonitrile, ug/L (CAS NO - 126-98-7)	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	< 1
	4/7/2015	N/A	N/A	< 10	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	N/A	< 10
	7/13/2016	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
Methapyrilene, ug/L (CAS NO - 91-80-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Methapyrilene, ug/L (CAS NO - 91-80-5)	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Methoxychlor, ug/L (CAS NO - 72-43-5)	3/15/2010	N/A	N/A	N/A	N/A	< 0.032
	6/30/2010	< 0.032	< 0.032	N/A	N/A	N/A
	9/14/2011	< 0.032	< 0.032	N/A	N/A	< 0.032
	4/7/2015	N/A	N/A	< 0.0352	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.0352	N/A
	3/29/2016	< 0.0372	< 0.0356	< 0.0348	N/A	< 0.0372
	7/13/2016	N/A	N/A	N/A	0.0142*	N/A
	5/18/2021	< 0.0337	< 0.034	< 0.0337	< 0.0348	< 0.039
Methyl Methacrylate, ug/L (CAS NO - 80-62-6)	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 4	< 4	N/A	N/A	N/A
	9/14/2011	< 2	< 2	N/A	N/A	< 2
	4/7/2015	N/A	N/A	< 2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 2	N/A
	3/29/2016	< 2	< 2	< 2	N/A	< 2
	7/13/2016	N/A	N/A	N/A	< 2	N/A
	5/18/2021	< 2	< 2	< 2	< 2	< 2
Methyl Methanesulfonate, ug/L (CAS NO - 66-27-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Naphthalene, ug/L (CAS NO - 91-20-3)	3/15/2010	N/A	N/A	N/A	N/A	< 5
	6/30/2010	< 5	< 5	N/A	N/A	N/A
	9/14/2011	< 5	< 5	N/A	N/A	< 5
	4/7/2015	N/A	N/A	< 5	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 5	N/A
	3/29/2016	< 5	< 5	< 5	N/A	< 5
	7/13/2016	N/A	N/A	N/A	< 5	N/A
	5/18/2021	< 5	< 5	< 5	< 5	< 5
Nitrobenzene, ug/L (CAS NO - 98-95-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
N-Nitrosodiethylamine, ug/L (CAS NO - 55-18-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 0.002	< 0.002	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A

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N-Nitrosodiethylamine, ug/L (CAS NO - 55-18-5)	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
N-Nitrosodimethylamine, ug/L (CAS NO - 62-75-9)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	27.1	20.9	N/A	N/A	N/A
	3/8/2011	< 10	< 10	N/A	N/A	N/A
	6/28/2011	< 11.1	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	N/A
	8/20/2012	< 10	< 10	N/A	N/A	N/A
	3/19/2013	< 10	< 10	N/A	N/A	N/A
	8/22/2013	< 10.2	< 10.2	N/A	N/A	N/A
	3/4/2014	< 10.2	< 10.5	N/A	N/A	N/A
	10/28/2014	< 10	< 10	N/A	N/A	N/A
	4/7/2015	< 10	< 10	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/22/2015	< 10.2	< 10	N/A	N/A	N/A
	9/23/2015	< 0.002	< 0.002	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
N-Nitrosodi-n-butylamine, ug/L (CAS NO - 924-16-3)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 0.002	< 0.002	N/A	N/A	N/A
	3/29/2016	2.45*	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
N-Nitrosodi-n-propylamine, ug/L (CAS NO - 621-64-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 0.002	< 0.002	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
N-Nitrosodiphenylamine, ug/L (CAS NO - 86-30-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 0.02	< 0.02	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
N-Nitrosomethylethylamine, ug/L (CAS NO - 10595-95-6)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 0.002	< 0.002	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
N-Nitrosopiperidine, ug/L (CAS NO - 100-75-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 0.002	< 0.002	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
N-Nitrosopyrrolidine, ug/L (CAS NO - 930-55-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	16.1	12.7	N/A	N/A	N/A
	3/8/2011	< 10	< 10	N/A	N/A	N/A
	6/28/2011	< 11.1	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	3/22/2012	< 10	< 10	N/A	N/A	N/A
	8/20/2012	< 10	< 10	N/A	N/A	N/A
	3/19/2013	< 10	< 10	N/A	N/A	N/A
	8/22/2013	< 10.2	< 10.2	N/A	N/A	N/A
	3/4/2014	< 10.2	< 10.5	N/A	N/A	N/A
	10/28/2014	< 10	< 10	N/A	N/A	N/A
	4/7/2015	< 10	< 10	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/22/2015	< 10.2	< 10	N/A	N/A	N/A
	9/23/2015	< 0.002	< 0.002	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
O,O,O-Triethyl Phosphorothioate, ug/L (CAS NO - 126-68-1)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
O-Toluidine, ug/L (CAS NO - 95-53-4)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	9/23/2015	< 10.2	< 10	N/A	N/A	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Parathion-Ethyl, ug/L (CAS NO - 56-38-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	1.39*	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
PCB-1016, ug/L (CAS NO - 12674-11-2)	3/15/2010	N/A	N/A	N/A	N/A	< 0.8
	6/30/2010	< 0.8	< 0.8	N/A	N/A	N/A
	9/14/2011	< 0.8	< 0.8	N/A	N/A	< 0.8
	4/7/2015	N/A	N/A	< 0.8	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.842	N/A
	3/29/2016	< 0.909	< 0.92	< 0.87	N/A	< 0.851
	7/13/2016	N/A	N/A	N/A	< 0.825	N/A
	5/18/2021	< 0.842	< 0.851	< 0.842	< 0.87	< 0.976
PCB-1221, ug/L (CAS NO - 11104-28-2)	3/15/2010	N/A	N/A	N/A	N/A	< 0.8
	6/30/2010	< 0.8	< 0.8	N/A	N/A	N/A
	9/14/2011	< 0.8	< 0.8	N/A	N/A	< 0.8
	4/7/2015	N/A	N/A	< 0.8	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.842	N/A
	3/29/2016	< 0.909	< 0.92	< 0.87	N/A	< 0.851
	7/13/2016	N/A	N/A	N/A	< 0.825	N/A
	5/18/2021	< 0.842	< 0.851	< 0.842	< 0.87	< 0.976
PCB-1232, ug/L (CAS NO - 11141-16-5)	3/15/2010	N/A	N/A	N/A	N/A	< 0.8
	6/30/2010	< 0.8	< 0.8	N/A	N/A	N/A
	9/14/2011	< 0.8	< 0.8	N/A	N/A	< 0.8
	4/7/2015	N/A	N/A	< 0.8	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.842	N/A
	3/29/2016	< 0.909	< 0.92	< 0.87	N/A	< 0.851
	7/13/2016	N/A	N/A	N/A	< 0.825	N/A
	5/18/2021	< 0.842	< 0.851	< 0.842	< 0.87	< 0.976
PCB-1242, ug/L (CAS NO - 53469-21-9)	3/15/2010	N/A	N/A	N/A	N/A	< 0.8
	6/30/2010	< 0.8	< 0.8	N/A	N/A	N/A
	9/14/2011	< 0.8	< 0.8	N/A	N/A	< 0.8
	4/7/2015	N/A	N/A	< 0.8	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.842	N/A
	3/29/2016	< 0.909	< 0.92	< 0.87	N/A	< 0.851
	7/13/2016	N/A	N/A	N/A	< 0.825	N/A
	5/18/2021	< 0.842	< 0.851	< 0.842	< 0.87	< 0.976
PCB-1248, ug/L (CAS NO - 12672-29-6)	3/15/2010	N/A	N/A	N/A	N/A	< 0.8
	6/30/2010	< 0.8	< 0.8	N/A	N/A	N/A
	9/14/2011	< 0.8	< 0.8	N/A	N/A	< 0.8
	4/7/2015	N/A	N/A	< 0.8	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.842	N/A
	3/29/2016	< 0.909	< 0.92	< 0.87	N/A	< 0.851
	7/13/2016	N/A	N/A	N/A	< 0.825	N/A
	5/18/2021	< 0.842	< 0.851	< 0.842	< 0.87	< 0.976
PCB-1254, ug/L (CAS NO - 11097-69-1)	3/15/2010	N/A	N/A	N/A	N/A	< 0.8
	6/30/2010	< 0.8	< 0.8	N/A	N/A	N/A
	9/14/2011	< 0.8	< 0.8	N/A	N/A	< 0.8
	4/7/2015	N/A	N/A	< 0.8	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.842	N/A
	3/29/2016	< 0.909	< 0.92	< 0.87	N/A	< 0.851
	7/13/2016	N/A	N/A	N/A	< 0.825	N/A
	5/18/2021	< 0.842	< 0.851	< 0.842	< 0.87	< 0.976
PCB-1260, ug/L (CAS NO - 11096-82-5)	3/15/2010	N/A	N/A	N/A	N/A	< 0.8
	6/30/2010	< 0.8	< 0.8	N/A	N/A	N/A

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
PCB-1260, ug/L (CAS NO - 11096-82-5)	9/14/2011	< 0.8	< 0.8	N/A	N/A	< 0.8
	4/7/2015	N/A	N/A	< 0.8	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 0.842	N/A
	3/29/2016	< 0.909	< 0.92	< 0.87	N/A	< 0.851
	7/13/2016	N/A	N/A	N/A	< 0.825	N/A
	5/18/2021	< 0.842	< 0.851	< 0.842	< 0.87	< 0.976
Pentachlorobenzene, ug/L (CAS NO - 608-93-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Pentachloronitrobenzene, ug/L (CAS NO - 82-68-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Pentachlorophenol [2C], ug/L (CAS NO - 87-86-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
Phenacetin, ug/L (CAS NO - 62-44-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Phenanthrene, ug/L (CAS NO - 85-01-8)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Phenol, ug/L (CAS NO - 108-95-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5

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Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Phenol, ug/L (CAS NO - 108-95-2)	9/14/2021	N/A	N/A	N/A	< 10.5	N/A
Phorate, ug/L (CAS NO - 298-02-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Pronamide, ug/L (CAS NO - 23950-58-5)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Propionitrile, ug/L (CAS NO - 107-12-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10	N/A
	3/29/2016	< 10	< 10	< 10	N/A	< 10
	7/13/2016	N/A	N/A	N/A	< 10	N/A
	5/18/2021	< 10	< 10	< 10	< 10	< 10
Pyrene, ug/L (CAS NO - 129-00-0)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Safrole, ug/L (CAS NO - 94-59-7)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Sulfide, mg/L (CAS NO - 18496-25-8)	3/15/2010	N/A	N/A	N/A	N/A	< 1
	6/30/2010	< 1	< 1	N/A	N/A	N/A
	9/14/2011	< 1	< 1	N/A	N/A	**0.53**
	3/19/2013	N/A	N/A	N/A	N/A	< 1
	8/22/2013	N/A	N/A	N/A	N/A	0.648*
	3/4/2014	N/A	N/A	N/A	N/A	< 1
	10/28/2014	N/A	N/A	N/A	N/A	< 1
	4/7/2015	N/A	N/A	< 1	N/A	< 1
	7/28/2015	N/A	N/A	N/A	< 1	N/A
	9/22/2015	N/A	N/A	N/A	N/A	< 1
	3/29/2016	< 1	< 1	< 1	N/A	< 1
	7/13/2016	N/A	N/A	N/A	< 1	< 1
	4/5/2017	N/A	N/A	N/A	N/A	< 1
	5/18/2021	< 1	< 1	< 1	0.622*	< 1

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Source

Other Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Thionazin, ug/L (CAS NO - 297-97-2)	3/15/2010	N/A	N/A	N/A	N/A	< 10
	6/30/2010	< 10	< 10	N/A	N/A	N/A
	9/14/2011	< 10	< 10	N/A	N/A	< 10
	4/7/2015	N/A	N/A	< 10.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 10.3	N/A
	3/29/2016	< 11.6	< 11.4	< 10.8	N/A	< 11.1
	7/13/2016	N/A	N/A	N/A	< 10.3	N/A
	5/18/2021	< 10.6	< 11.1	< 10.8	< 10.8	< 10.5
Toxaphene, ug/L (CAS NO - 8001-35-2)	3/15/2010	N/A	N/A	N/A	N/A	< 2
	6/30/2010	< 2	< 2	N/A	N/A	N/A
	9/14/2011	< 2	< 2	N/A	N/A	< 2
	4/7/2015	N/A	N/A	< 2.2	N/A	N/A
	7/28/2015	N/A	N/A	N/A	< 2.2	N/A
	3/29/2016	< 2.33	< 2.22	< 2.17	N/A	< 2.33
	7/13/2016	N/A	N/A	N/A	< 2.04	N/A
	5/18/2021	< 2.11	< 2.13	< 2.11	< 2.17	< 2.44

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Source

Total Natural_Attenuations Constituents	Sample Date	MW-20 DNG	MW-24 DNG	MW-32 DNG	MW-33 DNG	MW-90-11 DNG
Iron, Total, mg/L (CAS NO - 7439-89-6)	10/28/2014	7.41	35	N/A	N/A	25
	7/28/2015	10.6	44.2	N/A	N/A	29.2
	7/28/2015	10.6	44.2	N/A	N/A	29.2
	9/22/2015	32.4	36.5	4.64	N/A	26
	3/29/2016	10.1	38.9	4.56	0.477	19.9
	9/14/2021	N/A	29.3	N/A	N/A	N/A
	9/13/2022	20.8	41.1	N/A	4.46	23.5
	3/21/2023	N/A	N/A	7.77	N/A	N/A
Manganese, mg/L (CAS NO - 7439-96-5)	10/28/2014	59.4	1.55	N/A	N/A	0.816
	7/28/2015	13.7	0.88	N/A	N/A	0.77
	7/28/2015	13.7	0.88	N/A	N/A	0.77
	9/22/2015	16.8	0.855	0.567	N/A	0.801
	3/29/2016	13.1	0.958	0.539	0.0627	0.914
	9/14/2021	N/A	1.02	N/A	N/A	N/A
	9/13/2022	13.4	0.817	N/A	1.97	0.533
	3/21/2023	N/A	N/A	2.05	N/A	N/A
Nitrate (NO3), mg/L (CAS NO - 14797-55-8)	8/22/2013	< 0.1	N/A	N/A	N/A	< 0.1
	10/28/2014	0.18	< 0.1	N/A	N/A	< 0.1
	7/28/2015	< 0.1	< 0.1	N/A	N/A	< 0.1
	7/28/2015	< 0.1	< 0.1	N/A	N/A	< 0.1
	9/22/2015	< 0.1	< 0.1	< 0.1	N/A	< 0.1
	3/29/2016	0.0873*	< 0.1	< 0.1	< 0.1	< 0.1
	9/13/2022	0.386	0.903	N/A	< 0.5	< 0.5
	3/21/2023	N/A	N/A	< 0.1	N/A	N/A
Sulfate, mg/L (CAS NO - 14808-79-8)	4/5/2012	14.2	6.27	N/A	N/A	42.9
	8/22/2013	15	3.39*	N/A	N/A	47.7
	10/28/2014	16.5	3.1*	N/A	N/A	53.4
	7/28/2015	15.3	2.9*	N/A	N/A	51.7
	7/28/2015	15.3	2.9*	N/A	N/A	51.7
	9/22/2015	N/A	N/A	44.4	N/A	N/A
	3/29/2016	21.8	1.01	44.9	10.8	41.8
	9/14/2021	N/A	< 5	N/A	N/A	N/A
	9/13/2022	25.1	< 5	N/A	8.3	41
	3/21/2023	N/A	N/A	41.4	N/A	N/A
Total Organic Carbon, mg/L (CAS NO - TOC)	8/22/2013	1.94	N/A	N/A	N/A	4.08
	10/28/2014	2.36	8.92	N/A	N/A	2.72
	7/28/2015	5.47	6.59	N/A	N/A	3.16
	7/28/2015	5.47	6.59	N/A	N/A	3.16
	9/22/2015	5.76	6.2	0.902*	N/A	2.97
	3/29/2016	4.02	6.24	1.48	7.12	2.93
	9/13/2022	9.24	6.59	N/A	4.6	4.1
	3/21/2023	N/A	N/A	1.25	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix C-4

Summary of Groundwater Chemistry – Bracketing

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Summary of Groundwater Chemistry
Clinton County Sanitary Landfill - 23-SDP-01-74P - Bracketing

Appendix I VOC Constituents	Sample Date	MW-34 DNG	MW-90-18 DNG
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	8/1/2012	N/A	< 1
	10/30/2014	N/A	< 1
	7/28/2015	N/A	< 1
	7/28/2015	N/A	< 1
	9/23/2015	N/A	< 1
	3/29/2016	< 1	< 1
	8/7/2018	N/A	< 1
	3/26/2019	N/A	< 1
	8/27/2019	< 1	< 1
	3/3/2020	< 1	N/A
	3/24/2020	N/A	< 1
	9/22/2020	N/A	< 1
	5/18/2021	< 1	< 1
	9/13/2022	N/A	< 1
	3/21/2023	N/A	< 1
	8/15/2023	N/A	< 1

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix D

Statistical Method and Output

Statistical Method and Output

Purpose

The purpose of this document is to provide the statistical evaluation of groundwater analytical data collected from the groundwater monitoring network of the South municipal solid waste landfill unit (South MSWLF unit) at the Clinton County Area Sanitary Landfill – East.

Diagnostic and Exploratory Evaluations and Tests of Assumptions

The detection and assessment/corrective action monitoring statistical programs include diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- Time Series Plots
- Shapiro-Wilk test for normality
- Ohio Environmental Protection Agency (EPA) Method for identification of outliers
- Mann-Kendall/Sen's Slope trend test

Management of Non-Detect Data

Non-detect values in the dataset are managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data are non-detects, simple substitution is used, where non-detect values are assigned a concentration of one-half (½) of the practical quantification limit (PQL). If greater than 15% but less than 50% of the data are non-detects, the Kaplan-Meier estimator is used to define the distribution for the dataset. If non-detects comprise greater than 50% of the available data, non-parametric statistical methods are used.

Management of Outliers

Background datasets are evaluated for outliers using the Ohio EPA Method as included in the Sanitas™ statistical software program and described below, which includes the use of Dixon's, Rosner's, and Tukey's outlier tests, as appropriate based on the diagnostic tests, for the datasets that contain less than 75% of the measured concentrations below the PQL. Outliers are not confirmed unless a physical cause or explanation for the outlier is determined.

Management of Data (ND data < 75%)

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

- A parametric dataset with $n < 20$ was evaluated with the Dixon's outlier test.
- A parametric dataset with $n \geq 20$ was evaluated with the Rosner's outlier test.
- A non-parametric dataset was evaluated with the Tukey's outlier test.

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

Management of Data (ND data ≥ 75%)

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

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

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report.

Detection Monitoring Statistical Program

The detection monitoring statistical program for the South MSWLF unit is defined by Iowa Administrative Code (IAC) 567-113.10(4)"g". For the water table monitoring network, interwell prediction limits with retesting were selected as the appropriate statistical method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections in background. Prediction limits are established using the process below. Data from the most recent sampling event is compared to the prediction limits for the determination of SSIs.

Interwell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).
- If the dataset does not have a normal distribution (and cannot be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, nonparametric interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).
- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-2 retesting scheme should be collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting result is above the prediction limit, the SSI is confirmed, and the monitoring point should be placed into the assessment monitoring program. If the retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

For the bedrock monitoring network and groundwater underdrain discharge points, intrawell prediction limits with retesting were selected as the appropriate statistical method for the determination of SSIs over background for inorganic constituents with historical detections in the background dataset. Prediction limits are established using the process below. Data from the most recent sampling event is compared to the prediction limits for the determination of SSIs.

Intrawell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric intrawell prediction limits are calculated if at least six datasets have been collected.
- If the dataset does not have a normal distribution (and cannot be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, nonparametric intrawell prediction limits are calculated if at least six datasets have been collected.
- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-2 retesting scheme should be collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting result is above the prediction limit, the SSI is confirmed, and the monitoring point should be placed into the assessment monitoring program or the discharge treated with the leachate for groundwater underdrain discharge points. If the retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Updating the Background Dataset for Intrawell Prediction Limits

If no SSI is confirmed for any two-year period, the intrawell background dataset will be updated using the following procedure:

- Test for normality (normal distribution) of the dataset either outright or through a transformation using Ladder of Powers:
  - Shapiro-Wilk test
- Test for statistically significant trends:
  - Mann-Kendall/Sen's Slope trend test

If an increasing trend is detected, the monitoring point will be placed into the assessment monitoring program or the discharge treated with the leachate for groundwater underdrain discharge points.

- If the dataset has a normal distribution and no trend is present, conduct a two-sample Welch's t-test at a 0.01 significance level to compare current background to the most recent two years of detection monitoring data.

If Welch's t-test test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated.

- If the dataset does not a have normal distribution and no trend is present, conduct a two-sample non-parametric Wilcoxon rank-sum test (also known as the Mann-Whitney test) at a 0.01 significance level to compare current background to the most recent two years of detection monitoring data.

If the Wilcoxon rank-sum test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated.

- If the Welch's t-test and the Wilcoxon rank-sum test are not significant, the most recent two years of detection monitoring data will be added to the intrawell background dataset.
- Establish prediction limits based on the updated intrawell background dataset.

The process will repeat every two years in which an SSI is not confirmed.

Double Quantification Method

The quasi-statistical "double quantification" method is used for constituents not detected in the associated background data set. If a constituent is detected in the compliance dataset that has not been historically detected in the background dataset, that constituent must be retested before the next regularly scheduled sampling event. If the retesting results confirm the original detection with a quantifiable detection, the SSI is confirmed, and the monitoring point must be placed into the assessment monitoring program.

Assessment Monitoring/Corrective Action Statistical Program

Confidence intervals or confidence bands, as appropriate, were selected as the appropriate statistical methods for comparison of the groundwater analytical data against a fixed groundwater protection standard (GWPS). The assessment/corrective action monitoring statistical evaluations are performed using the most recent eight samples or all samples if less than eight samples are available. The confidence intervals or confidence bands used for the assessment/corrective action monitoring statistical evaluation are established using the process below. Transformation of the distribution is not considered.

Confidence Intervals or Confidence Bands

- A parametric confidence interval around a normal mean is calculated if the dataset has a normal distribution and no statistically significant trend is present.
- A non-parametric confidence interval around a median is calculated if the dataset does not have a normal distribution and no statistically significant trend is present.
- Non-parametric confidence bands around a Theil-Sen trend line are calculated if the dataset has a statistically significant trend.

In the event that the lower confidence limit or any part of the lower confidence band, as appropriate, exceeds the GWPS, then the monitoring point is declared out of compliance, and an assessment of corrective measures (ACM) is required. The ACM report for the South MSWLF unit was submitted September 26, 2019 (Doc #96021) and approved in DNR correspondence dated December 19, 2019 (Doc #96620). The ACM public meeting was held, and public meeting minutes, the Selection of Remedy, corrective action groundwater monitoring program, and corrective action financial assurance were subsequently submitted and approved.

Statistical Software Output

Sanitas™ statistical software was used to perform the statistical evaluations. The statistical outputs for the 1st and 2nd 2023 statistical evaluations are attached as Attachments A and B of this appendix, respectively.

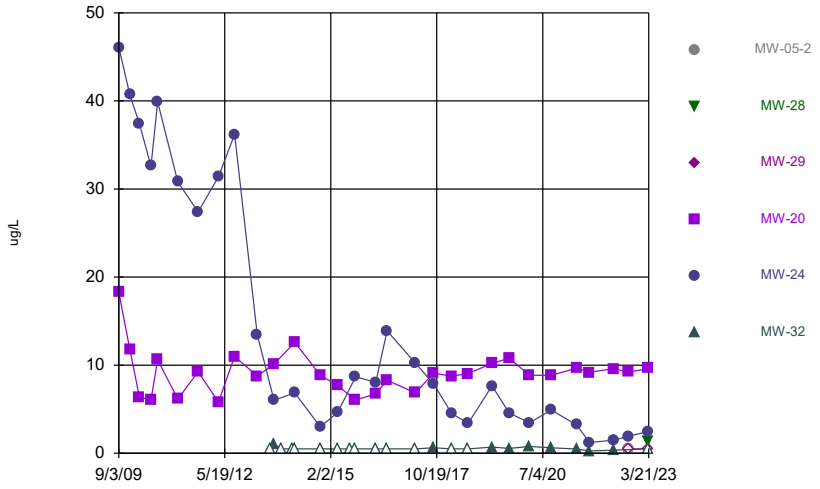
Attachment A

1st 2023 Statistical Evaluation Output

Time Series Plots
Water Table Aquifer

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

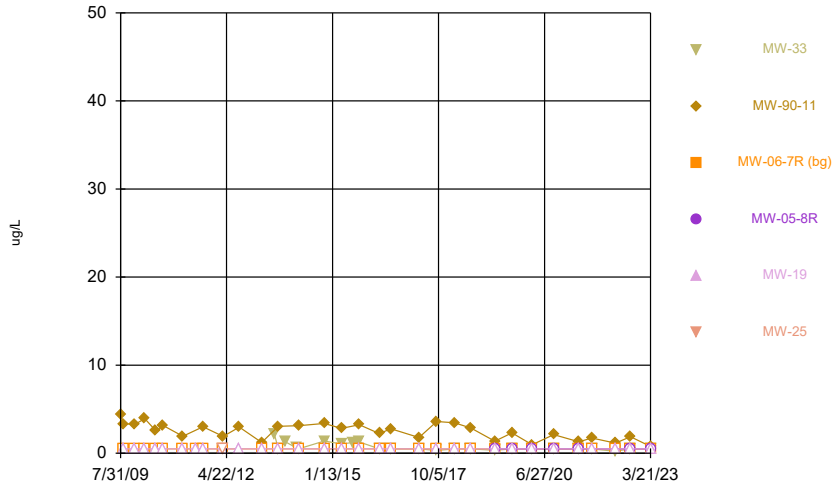
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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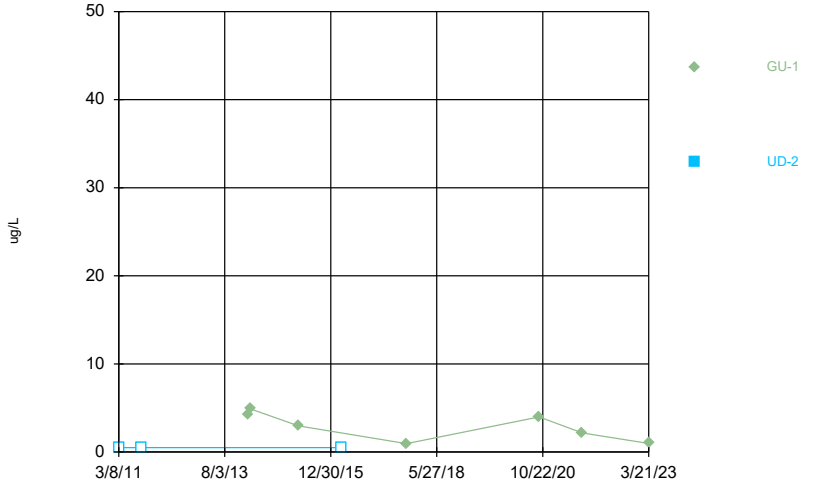
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

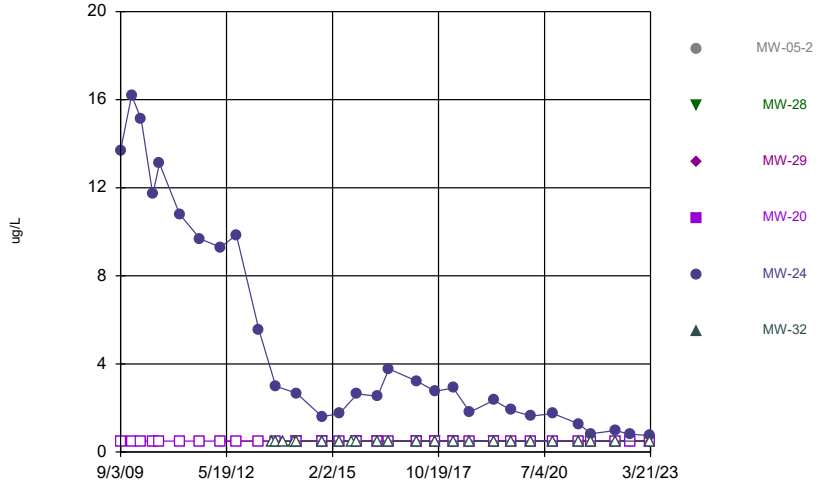
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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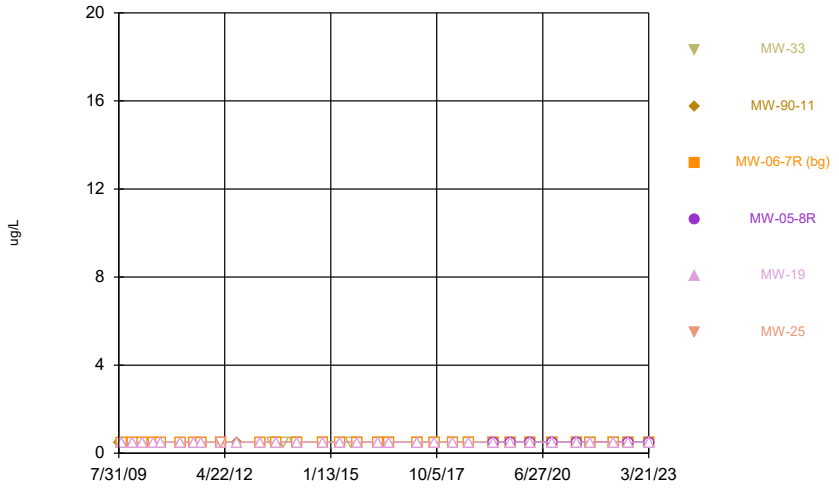
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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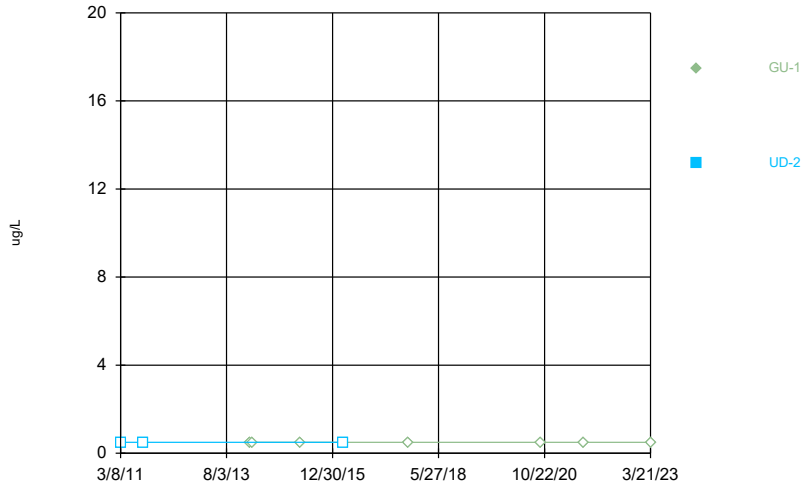
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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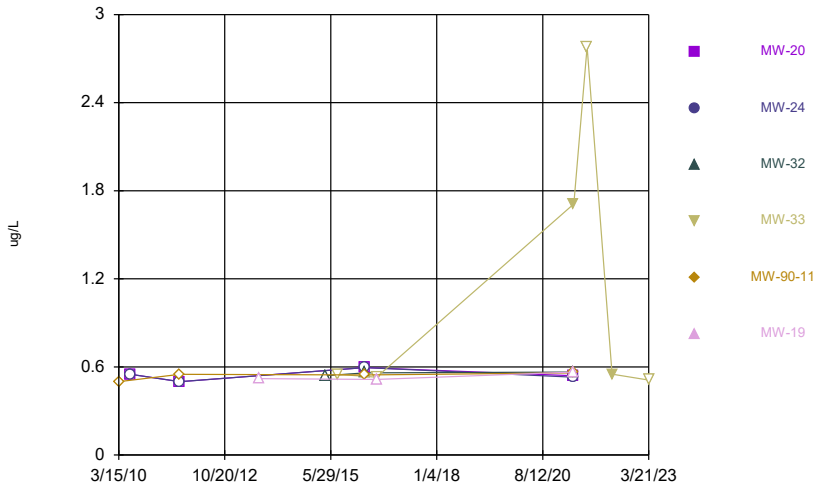
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

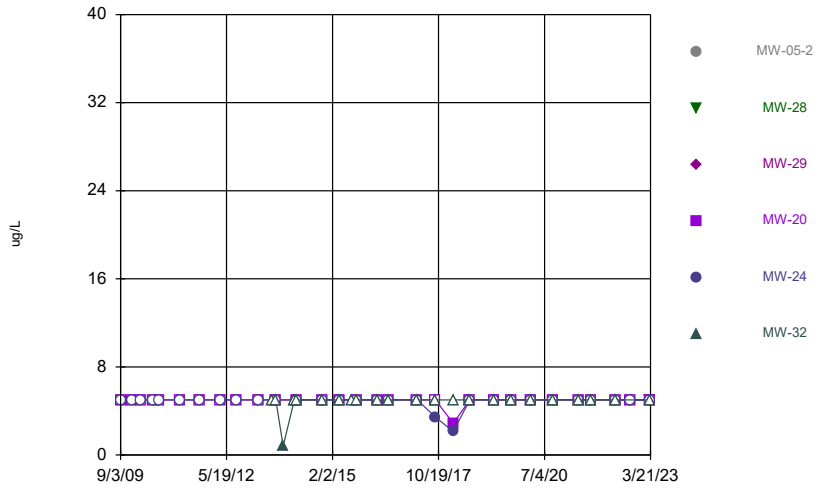
Time Series



Constituent: 2,4-D [2C] Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

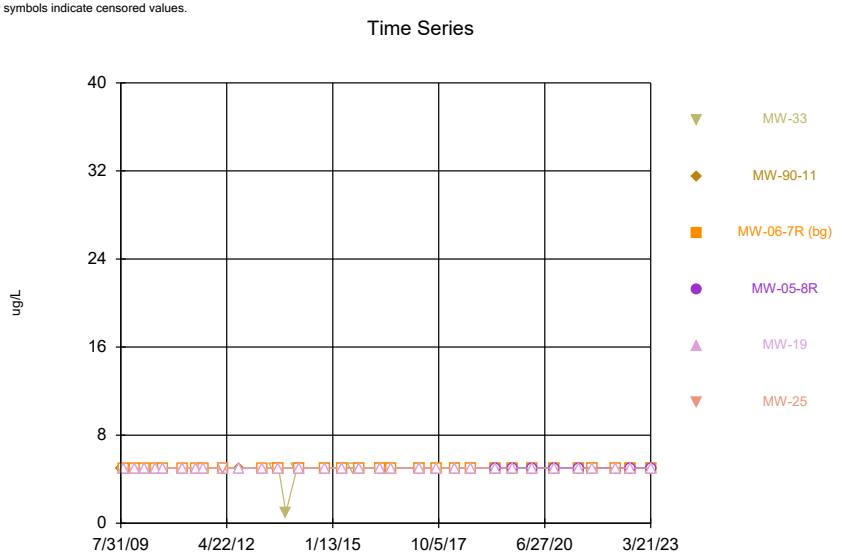
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



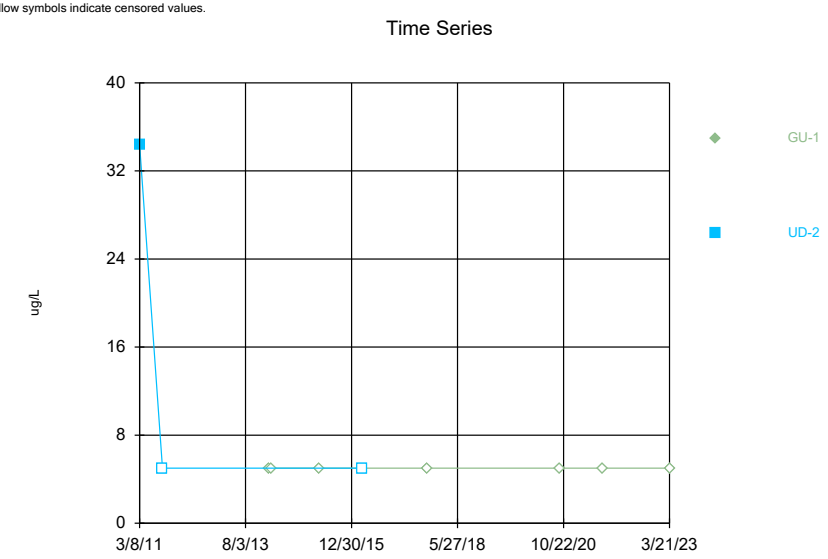
Constituent: 2-Butanone Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



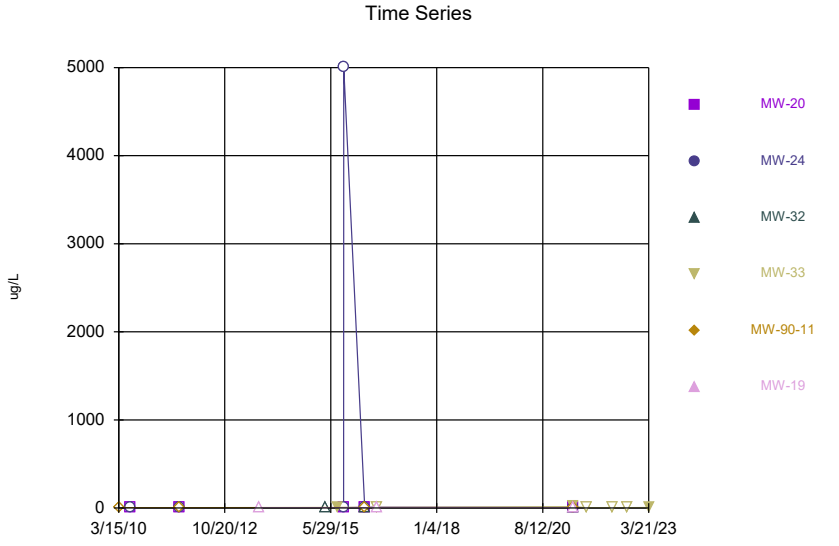
Constituent: 2-Butanone Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



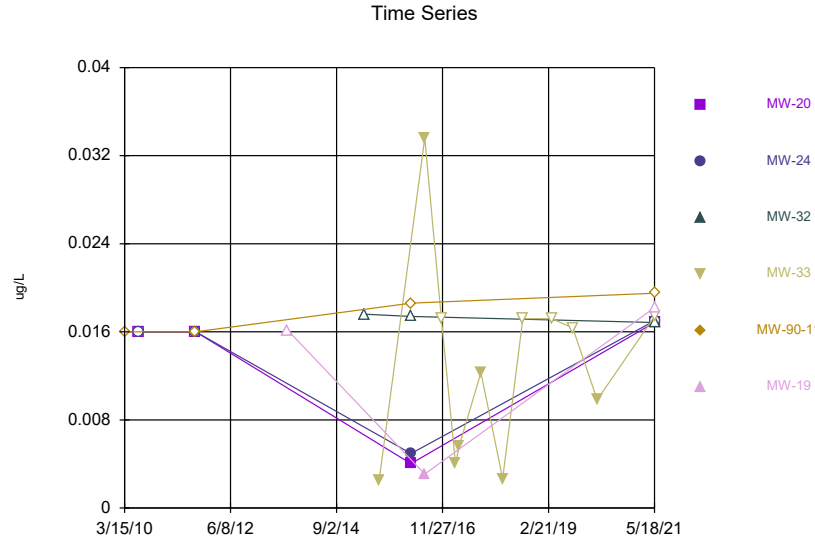
Constituent: 2-Butanone Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



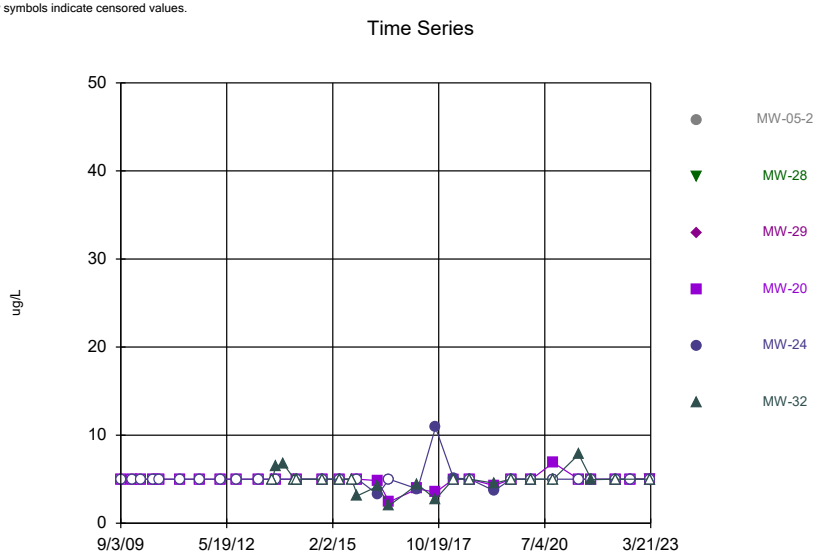
Constituent: 3/4-Methylphenol Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



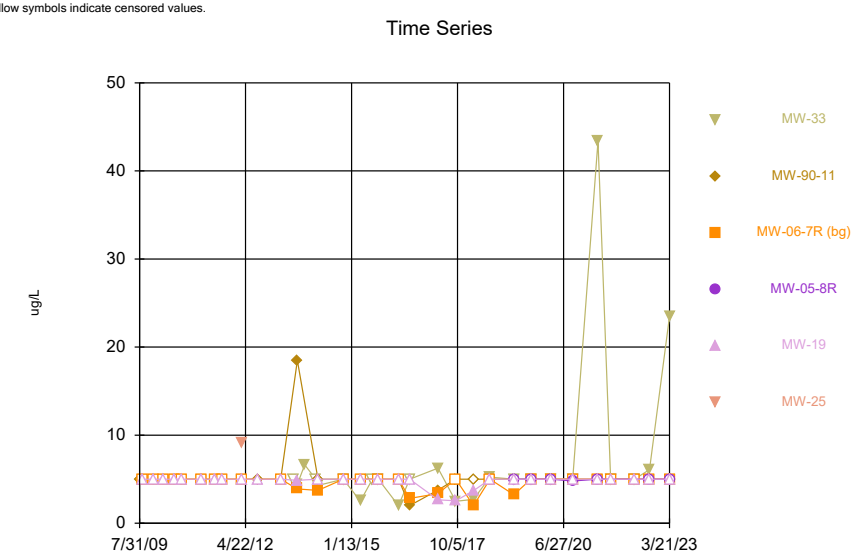
Constituent: 4,4`-DDD Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



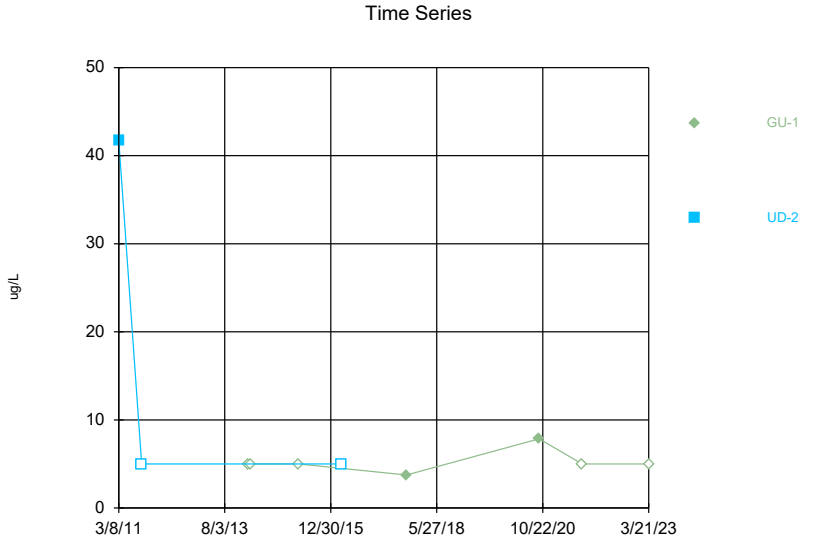
Constituent: Acetone Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



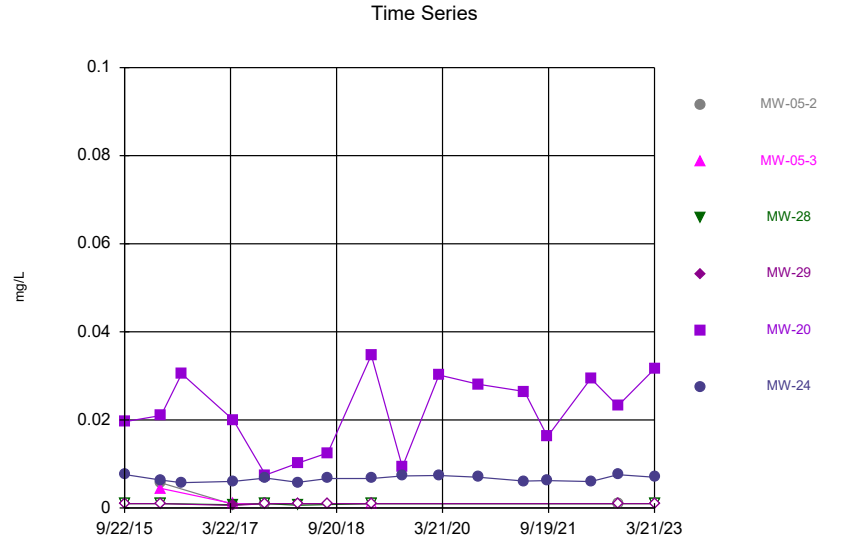
Constituent: Acetone Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



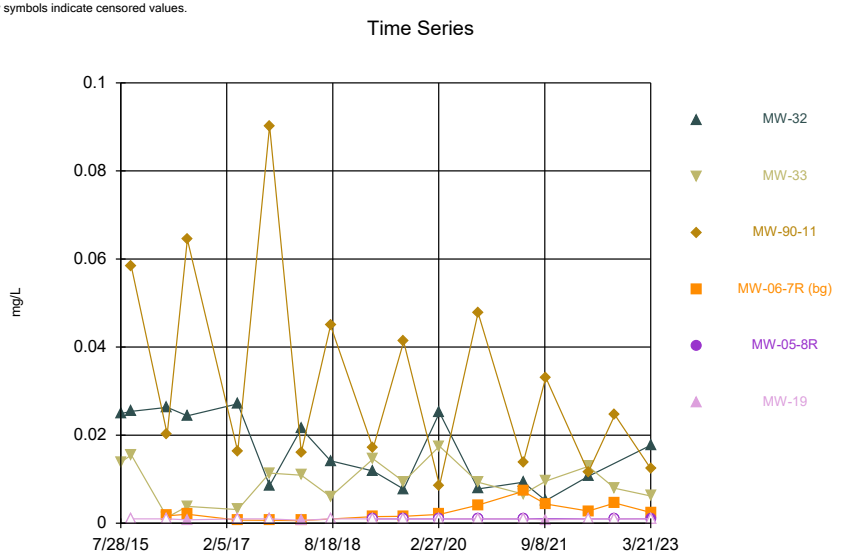
Constituent: Acetone Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



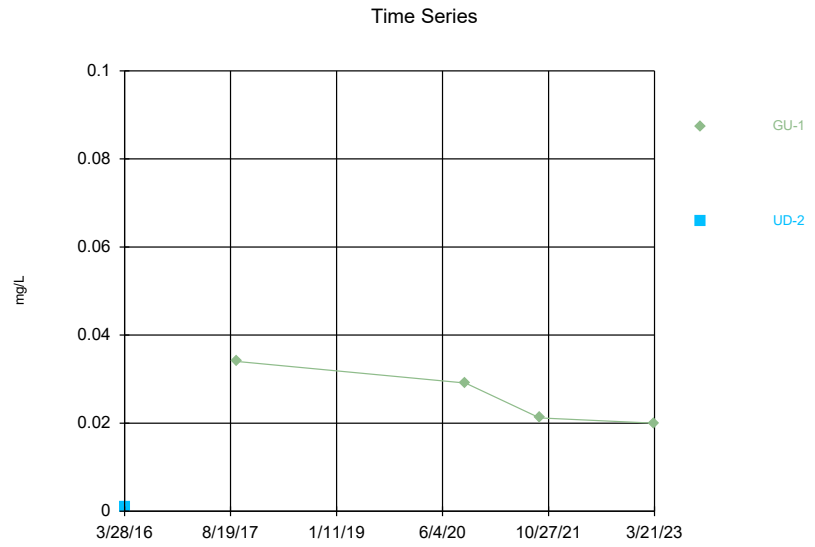
Constituent: Arsenic Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



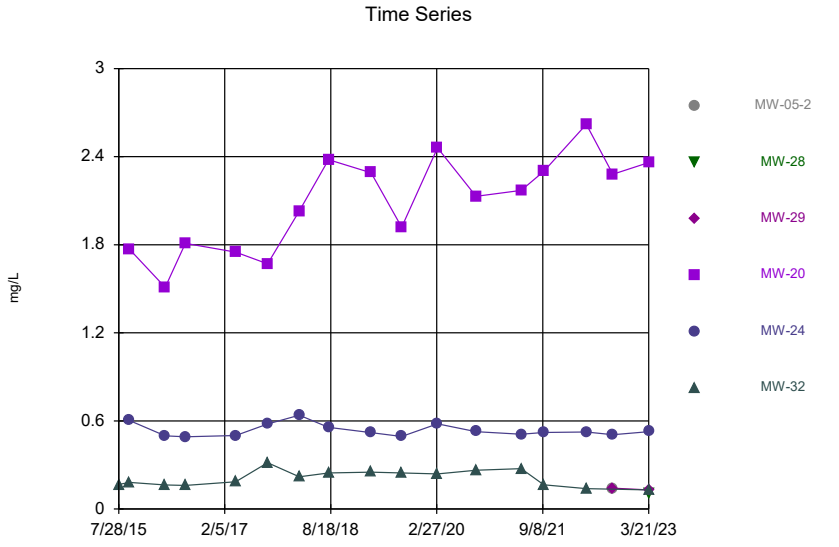
Constituent: Arsenic Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



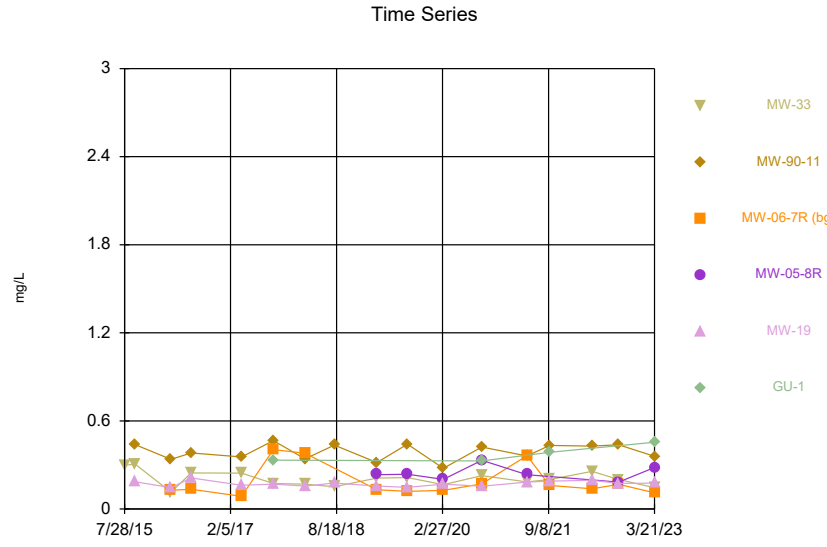
Constituent: Arsenic Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Barium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Barium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

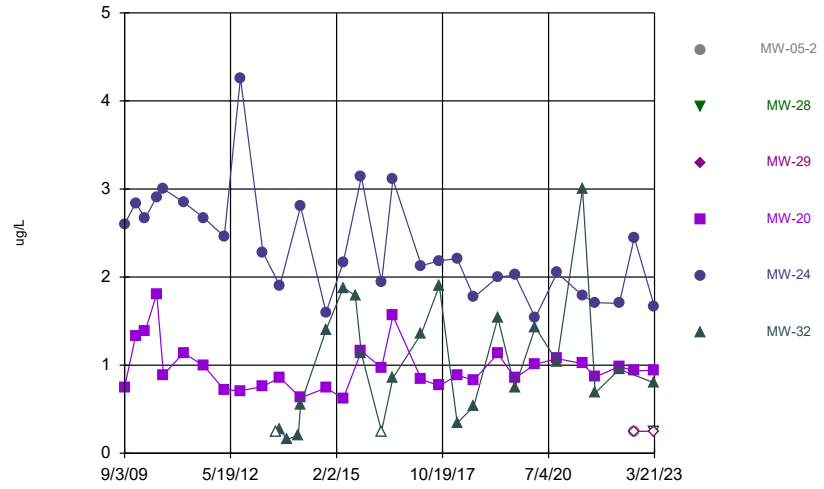
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series

Constituent: Barium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

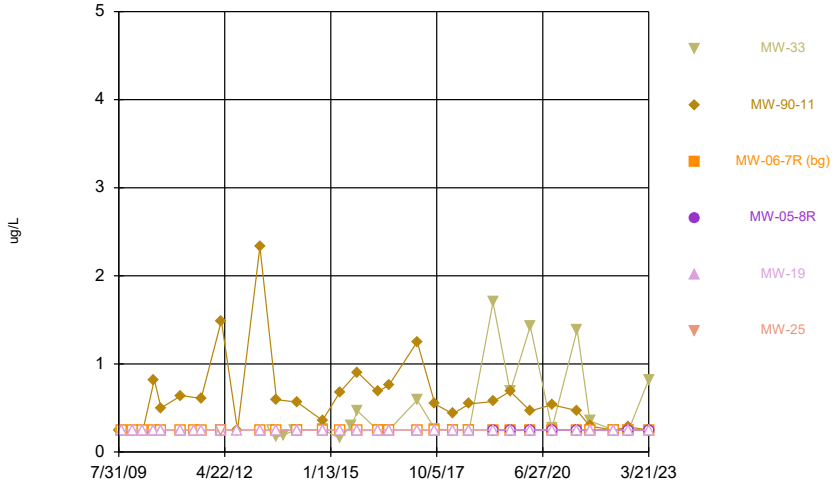
Time Series



Constituent: Benzene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

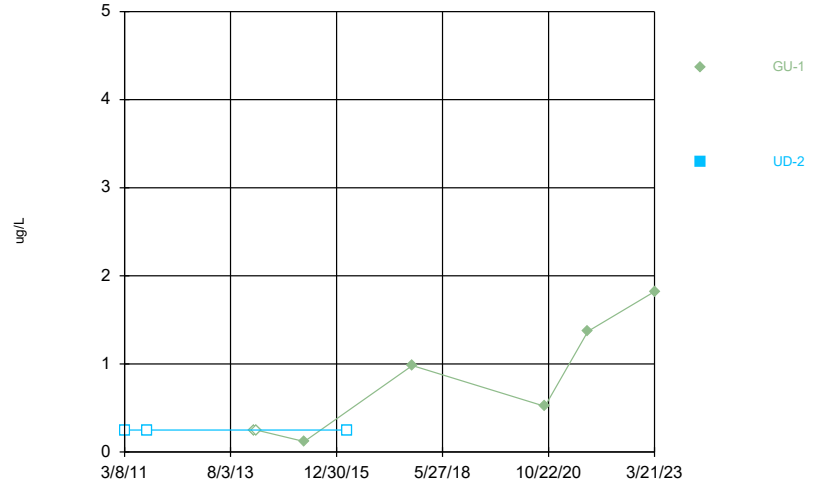
Time Series



Constituent: Benzene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

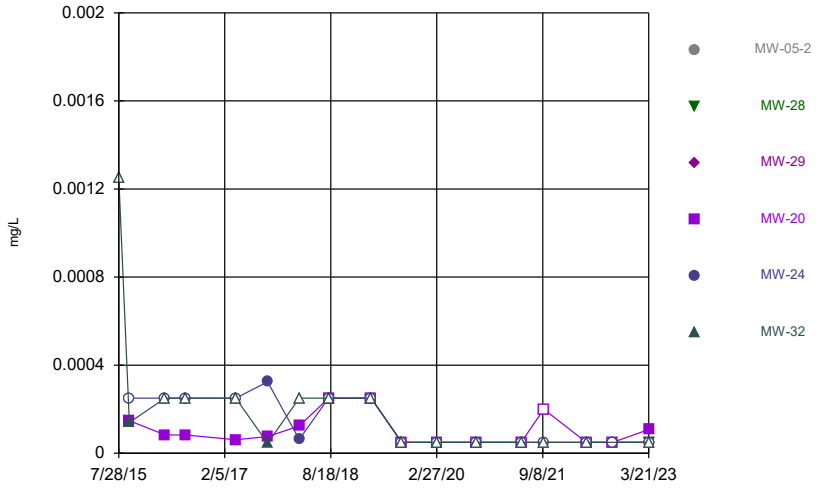
Time Series



Constituent: Benzene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

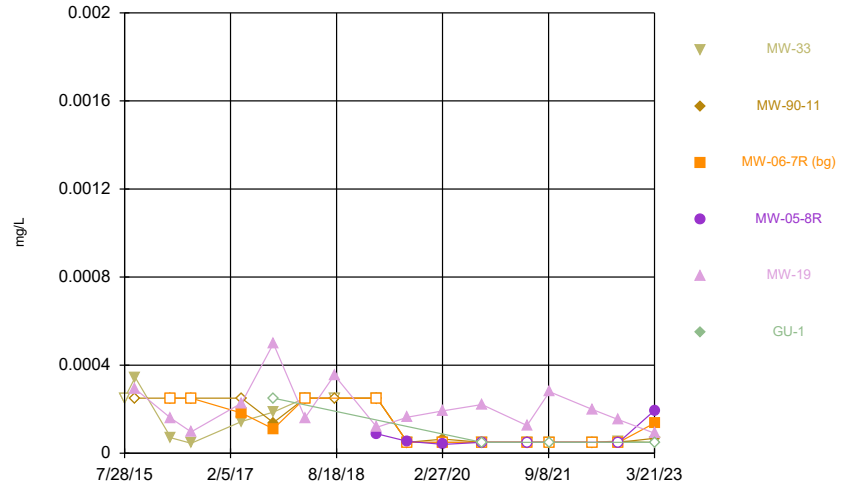
Time Series



Constituent: Cadmium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

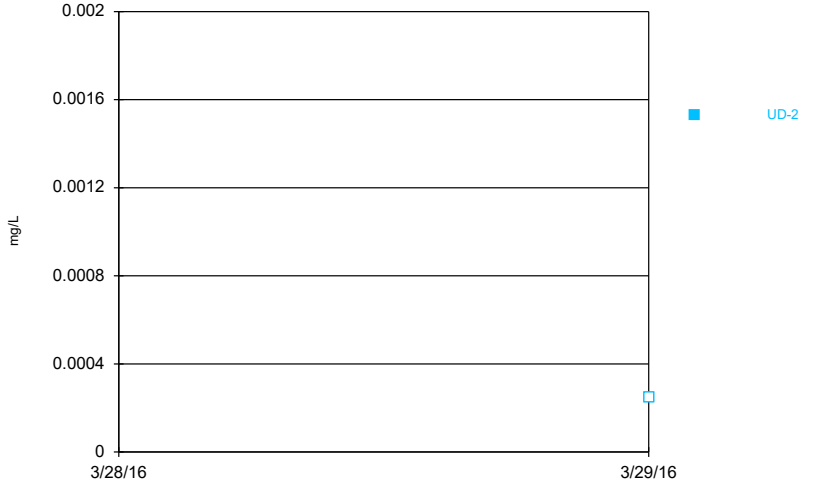
Time Series



Constituent: Cadmium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

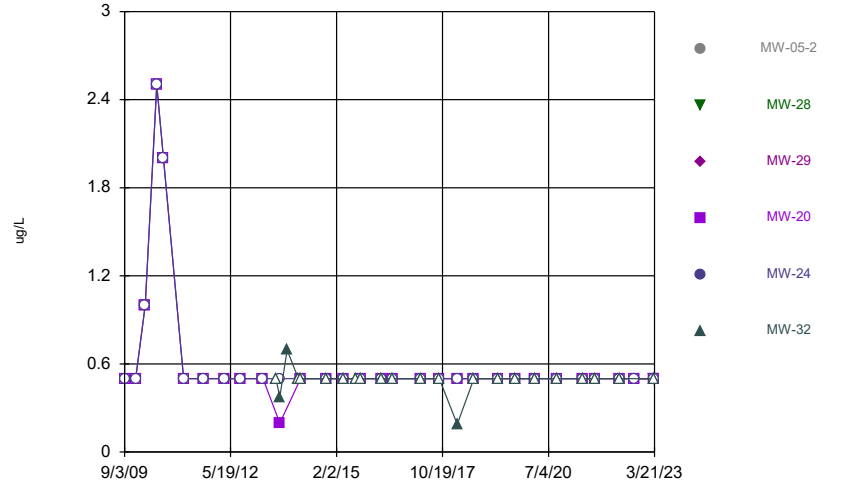
Time Series



Constituent: Cadmium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

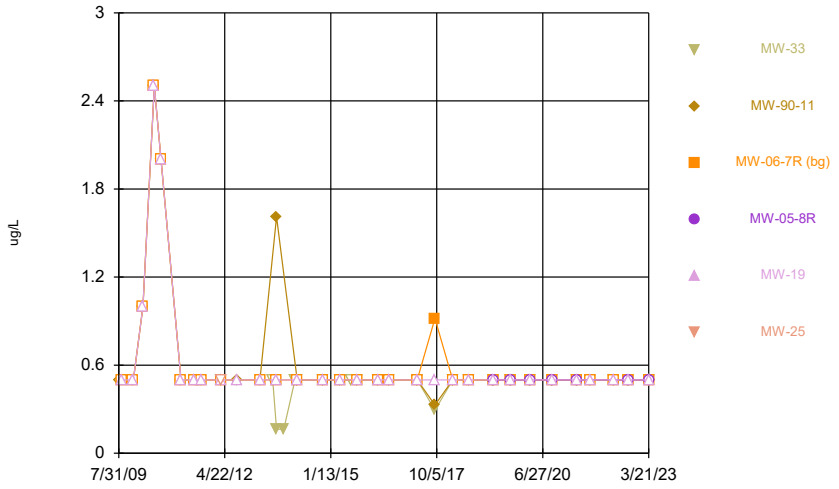
Time Series



Constituent: Carbon disulfide Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

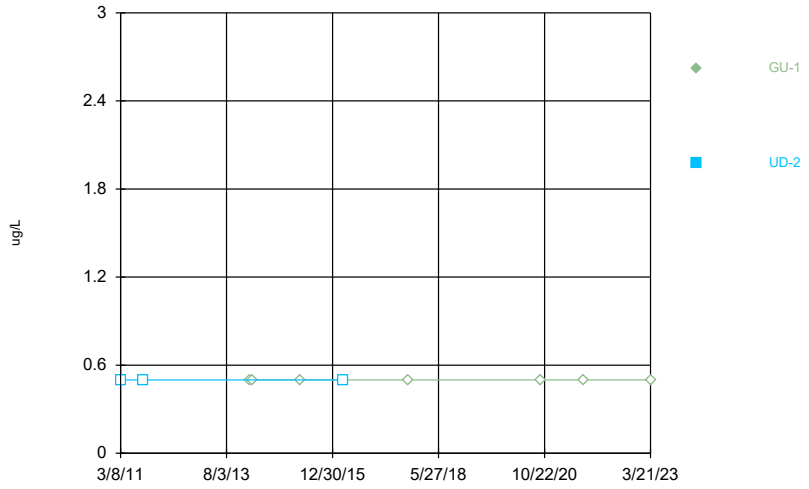
Time Series



Constituent: Carbon disulfide Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

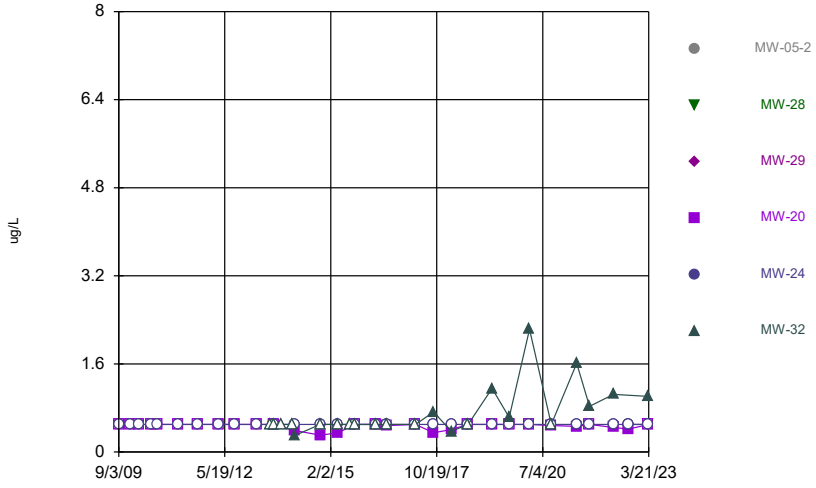
Time Series



Constituent: Carbon disulfide Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

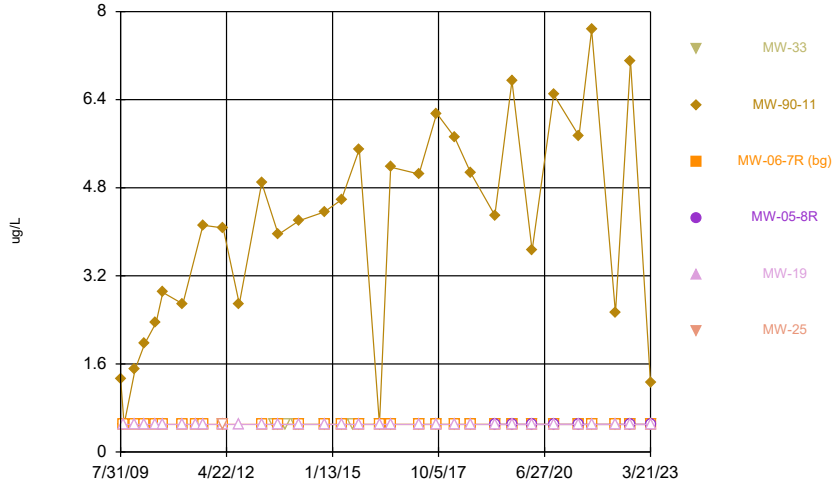
Time Series



Constituent: Chlorobenzene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

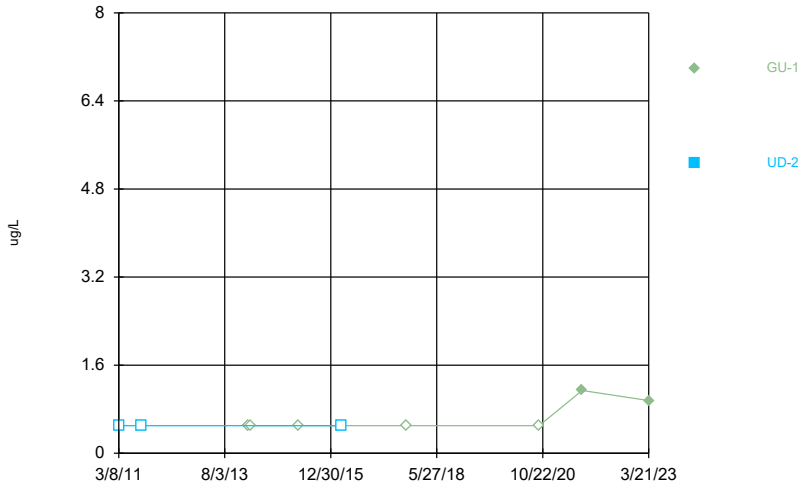
Time Series



Constituent: Chlorobenzene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

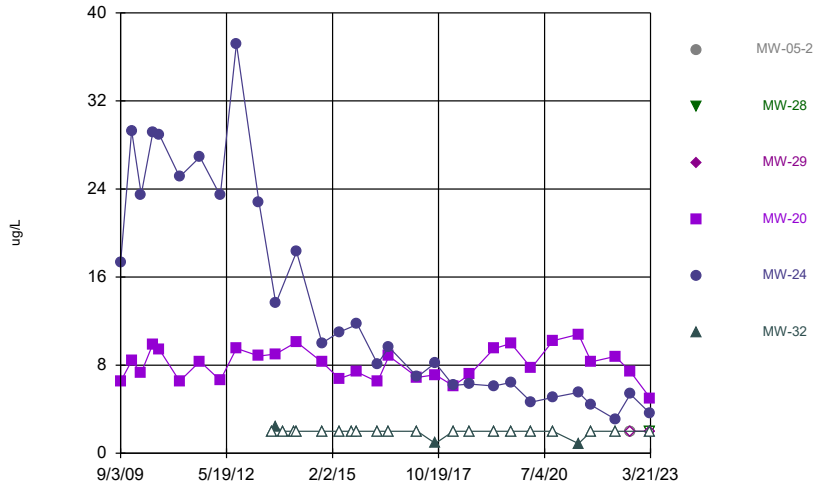
Time Series



Constituent: Chlorobenzene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

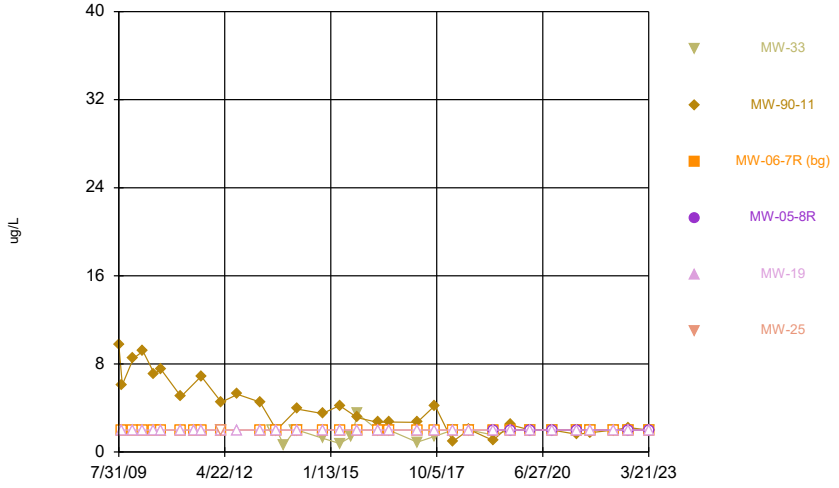
Time Series



Constituent: Chloroethane Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

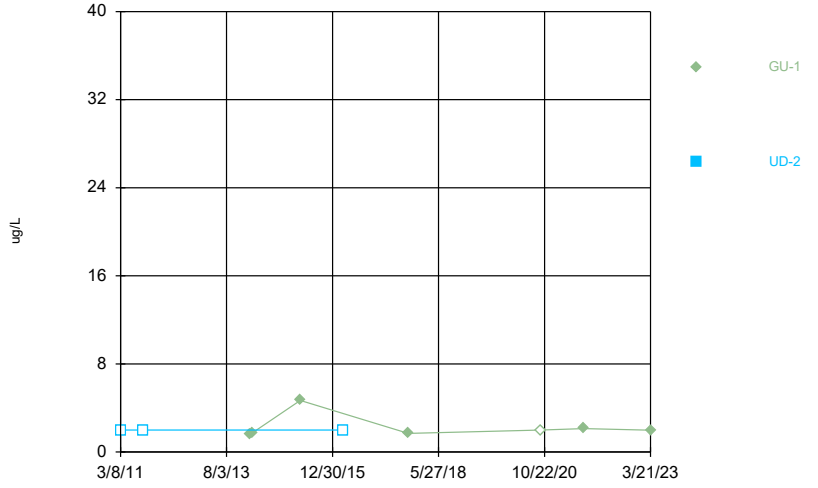
Time Series



Constituent: Chloroethane Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Chloroethane Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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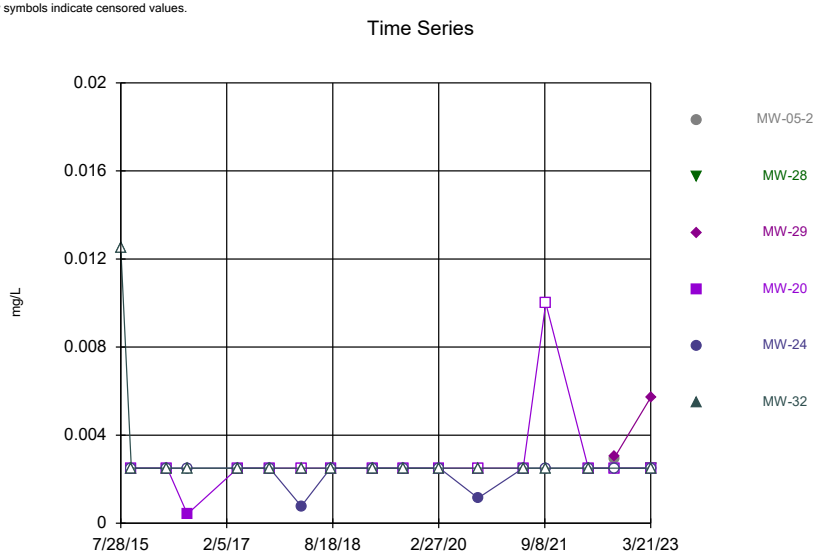
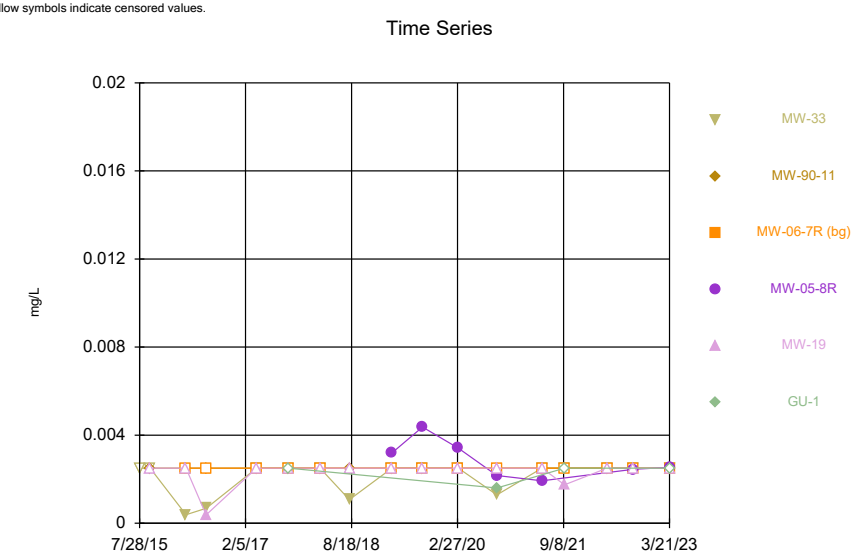


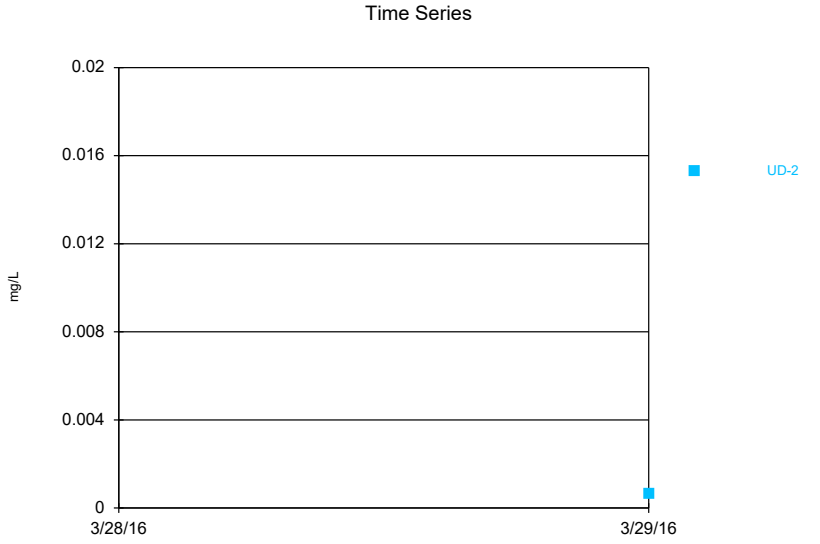
Constituent: Chromium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Chromium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Chromium Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
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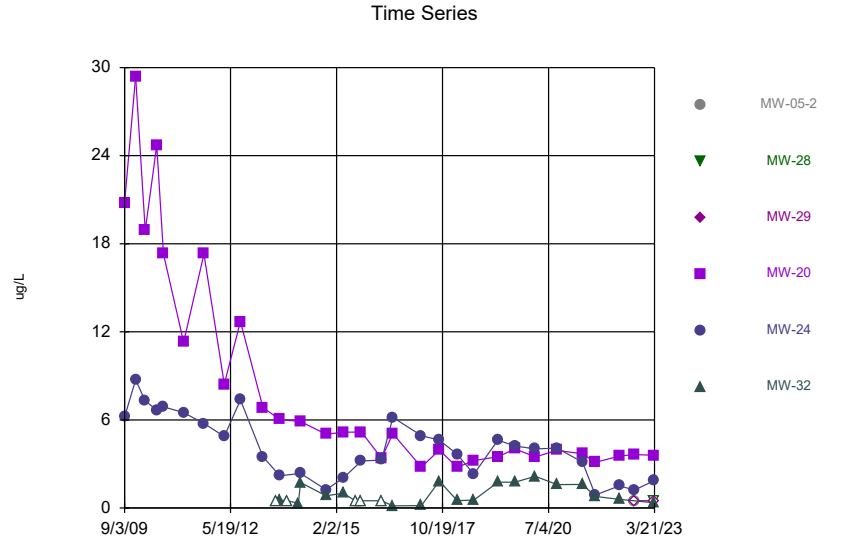
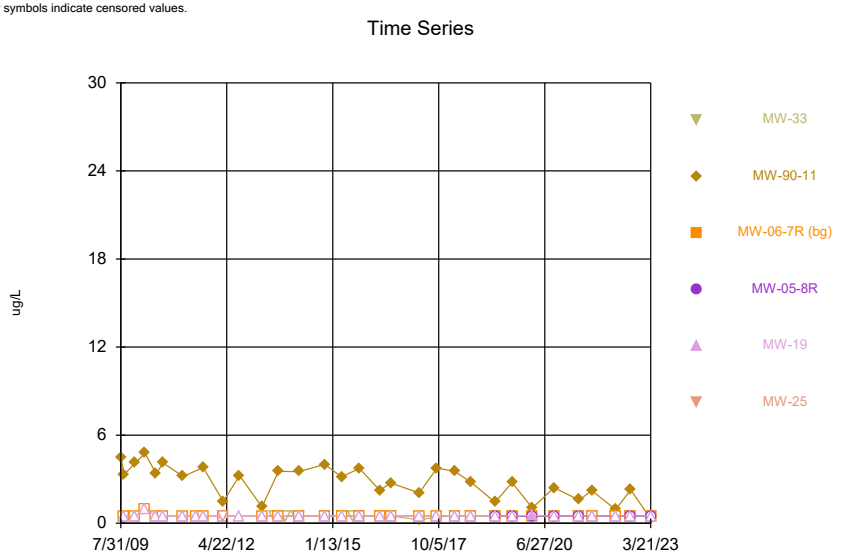
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



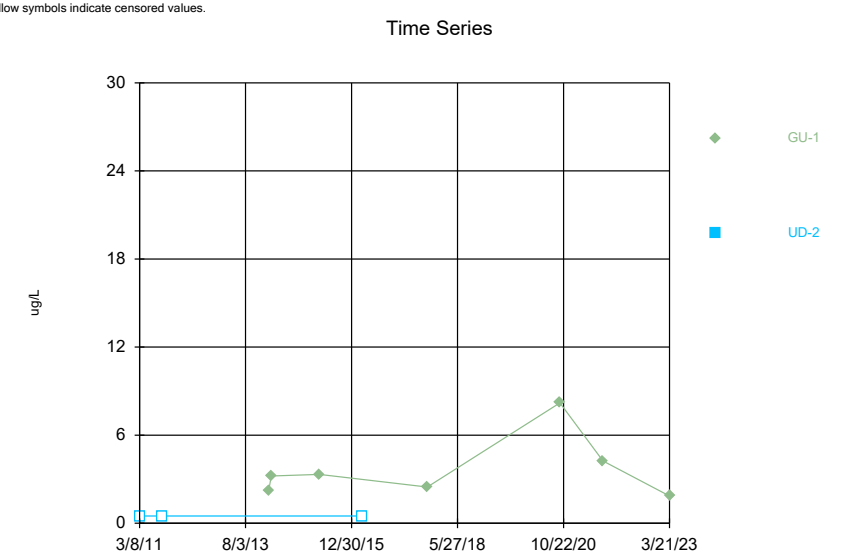
Constituent: cis-1,2-Dichloroethene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



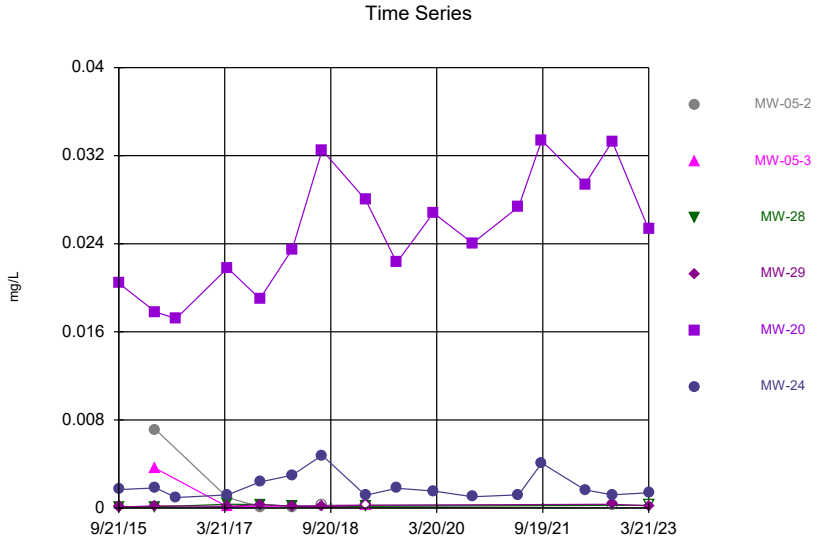
Constituent: cis-1,2-Dichloroethene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



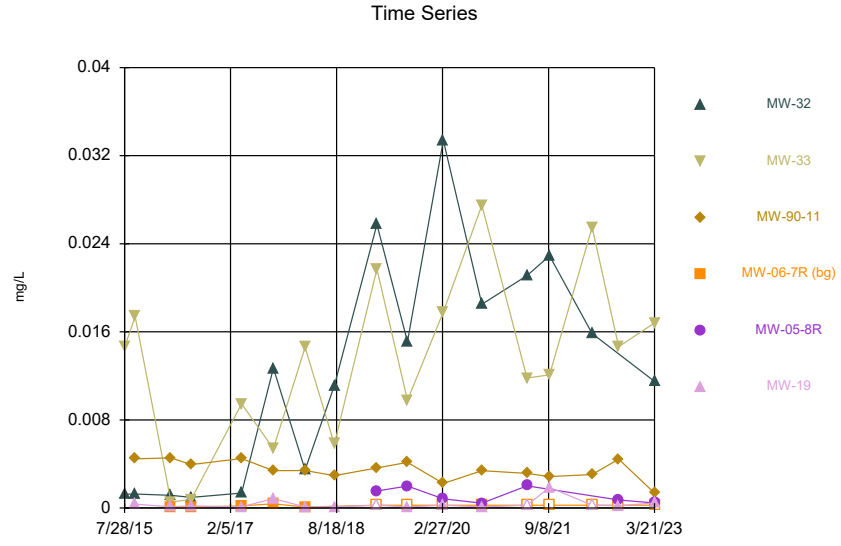
Constituent: cis-1,2-Dichloroethene Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Cobalt Analysis Run 5/5/2023 5:27 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

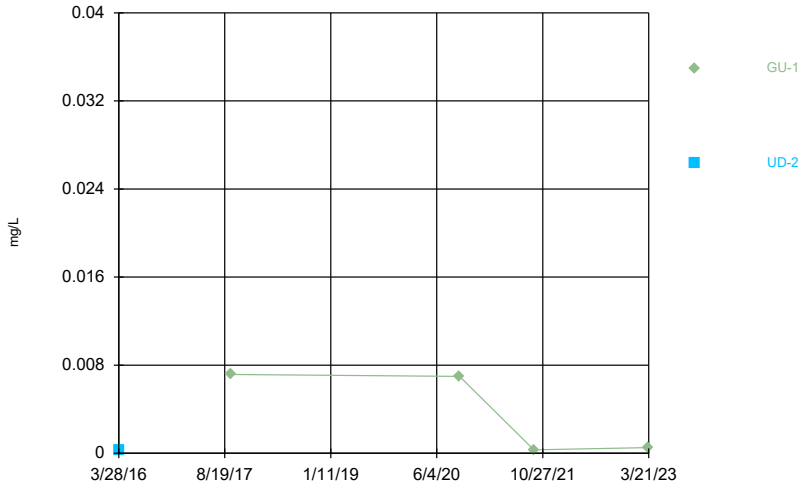
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Cobalt Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

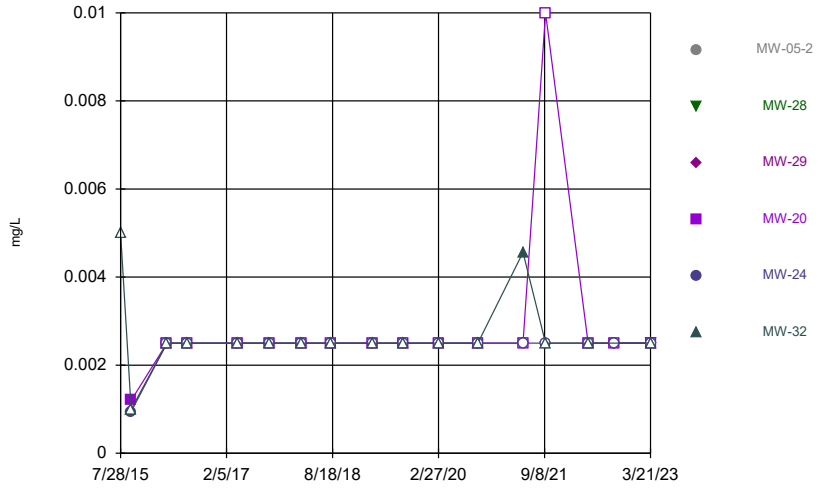
Time Series



Constituent: Cobalt Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

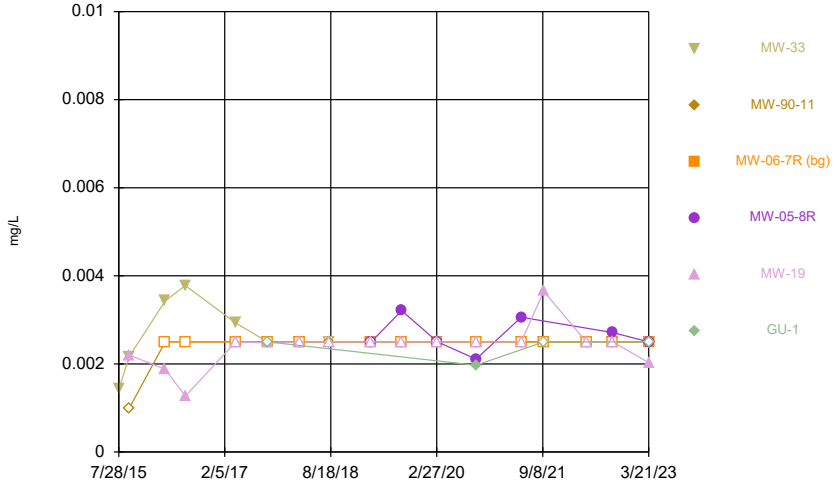
Time Series



Constituent: Copper Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



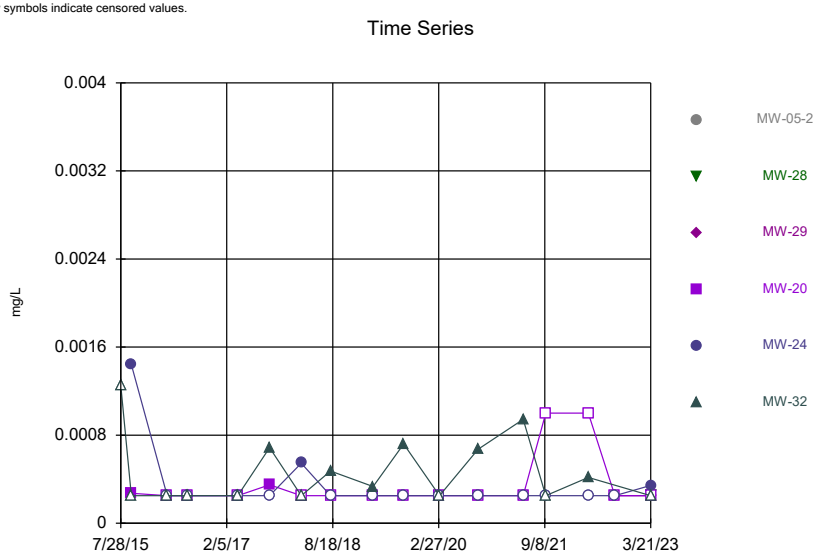
Constituent: Copper Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series

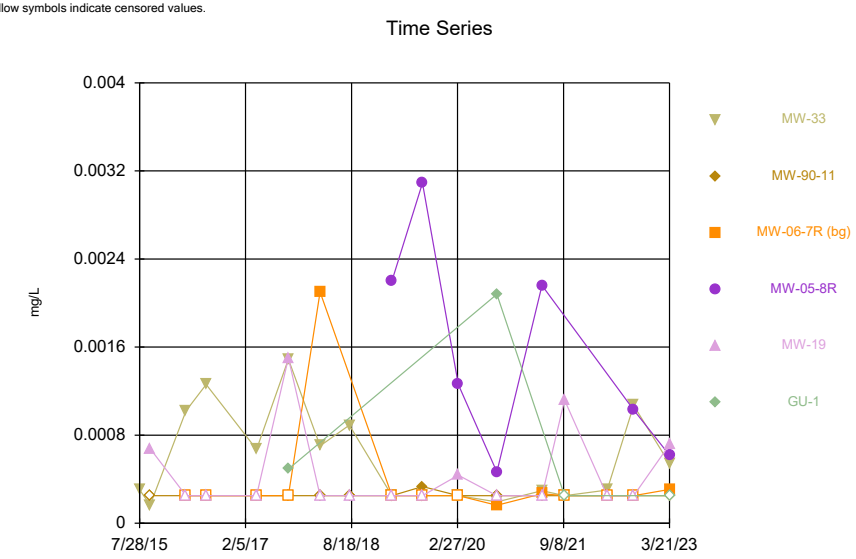
Constituent: Copper Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



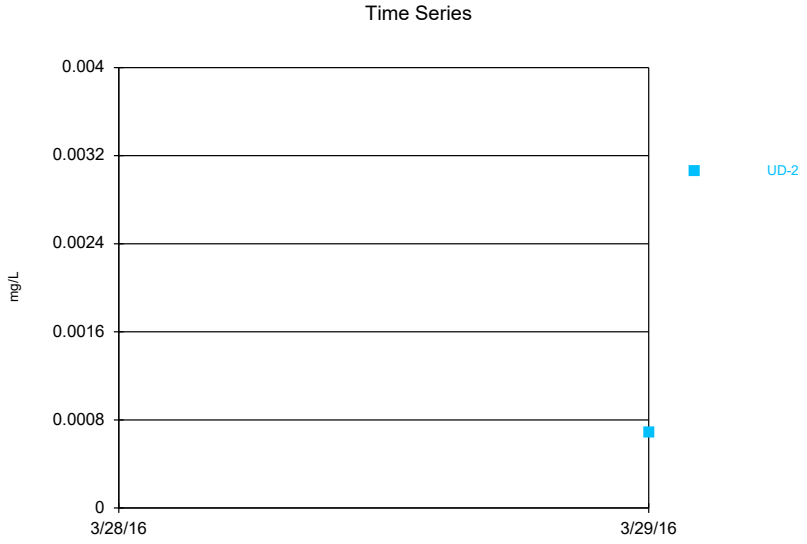
Constituent: Lead Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



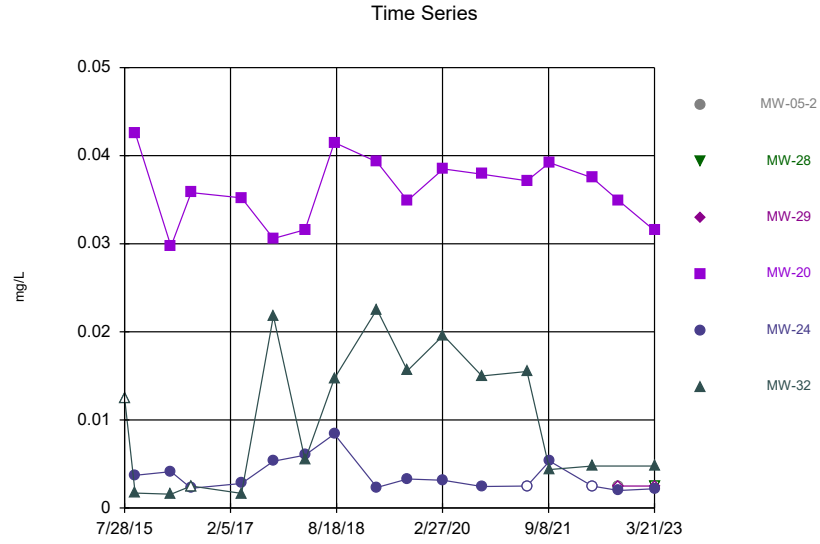
Constituent: Lead Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Lead Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Nickel Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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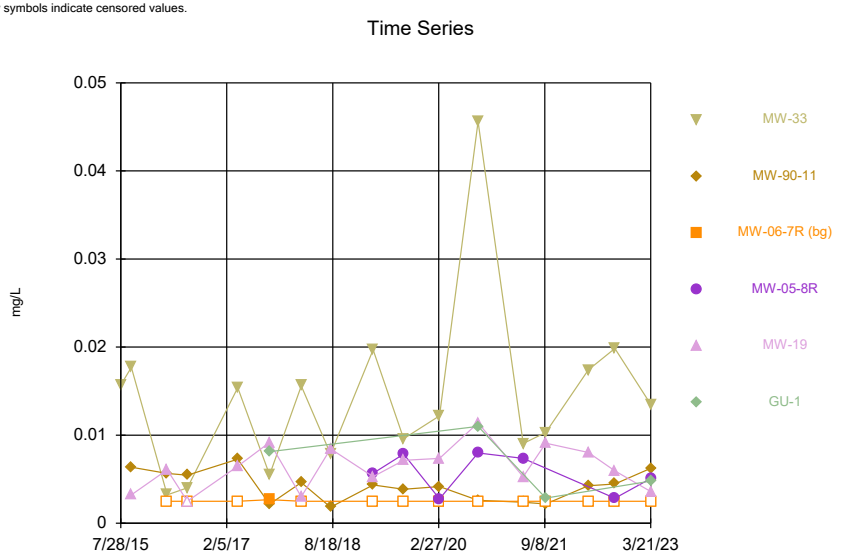
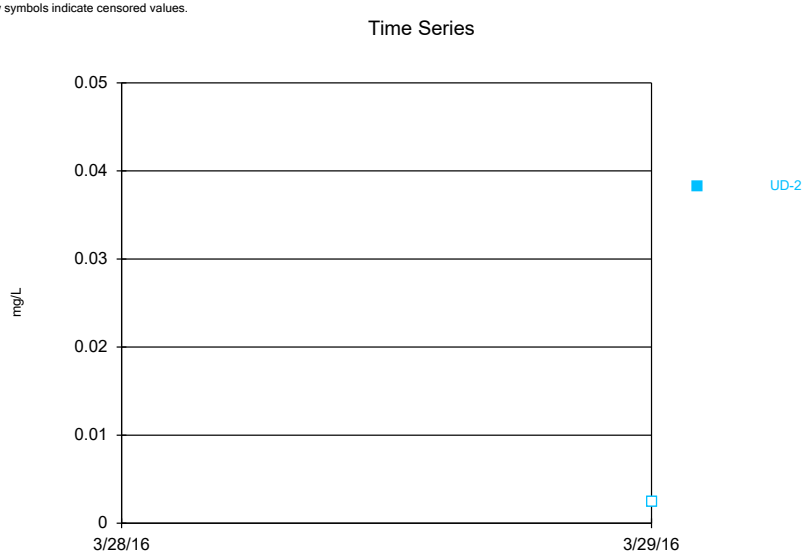


Constituent: Nickel Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Nickel Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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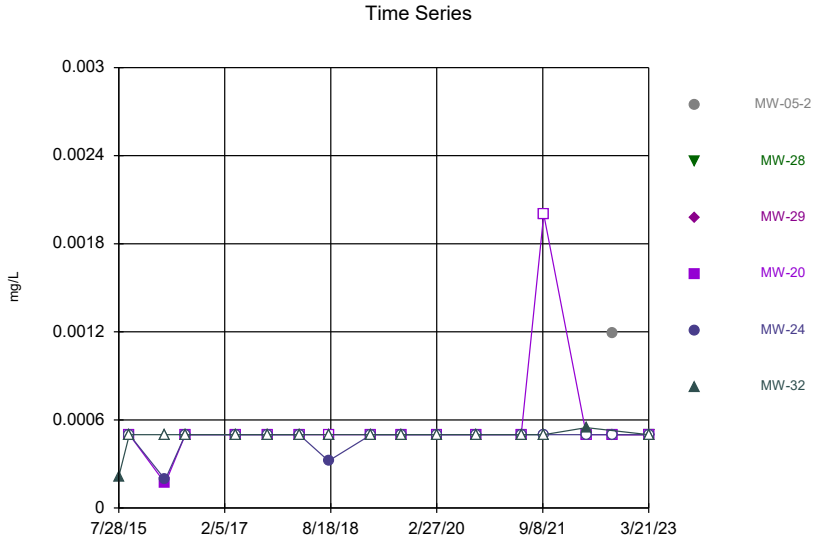
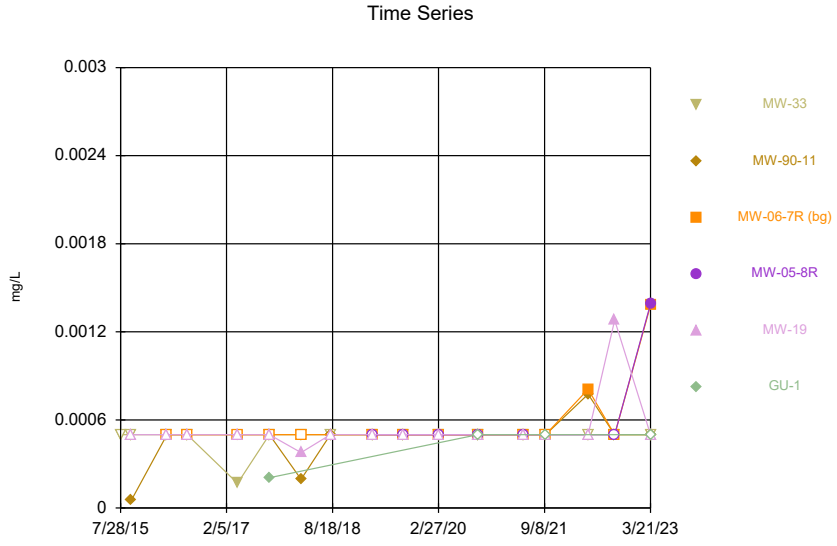


Constituent: Silver Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Silver Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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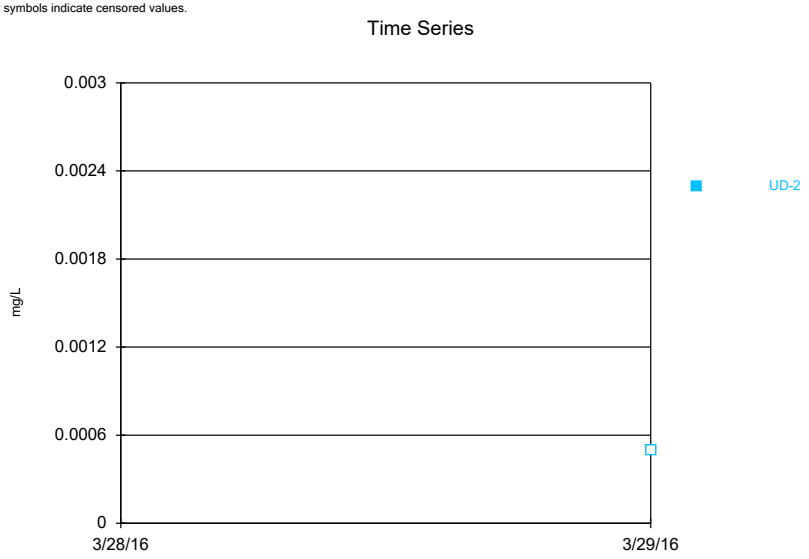

Constituent: Silver Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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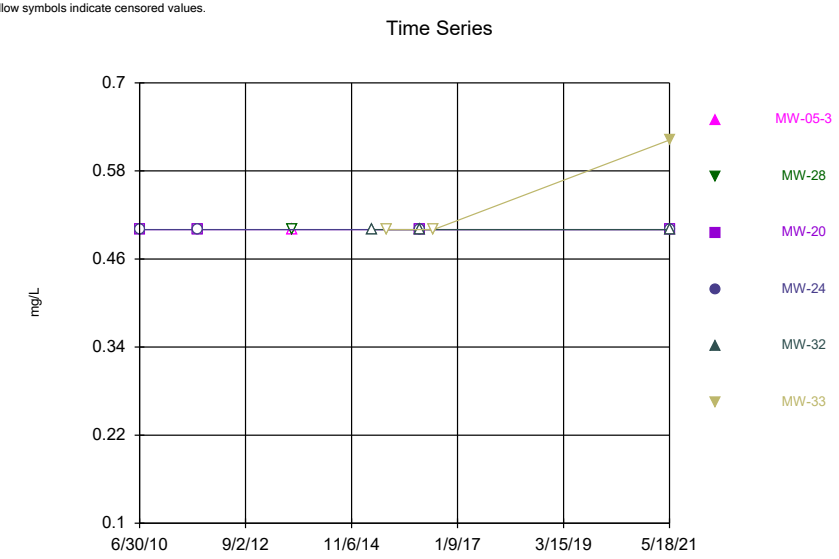
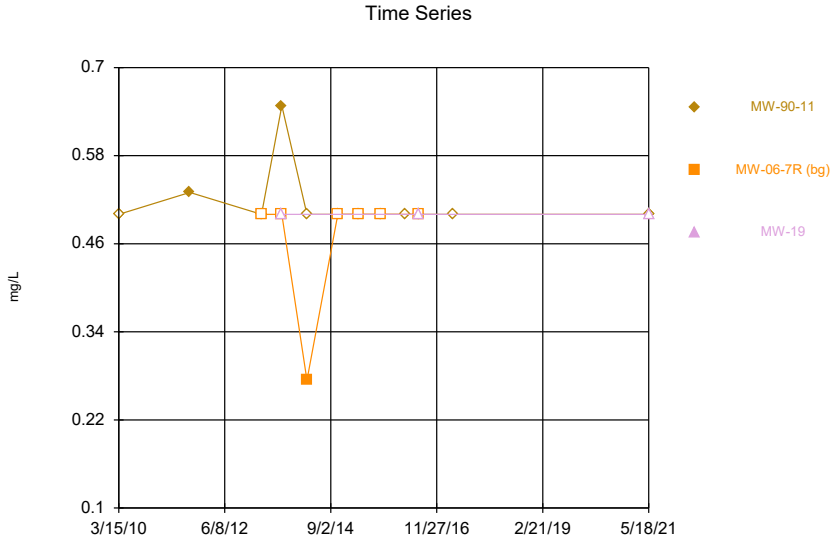


Constituent: Sulfide Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Sulfide Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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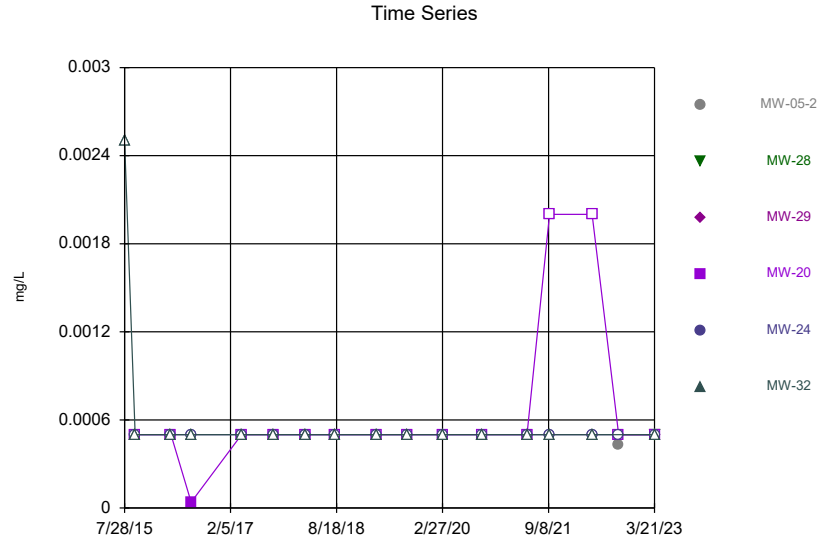

Constituent: Thallium Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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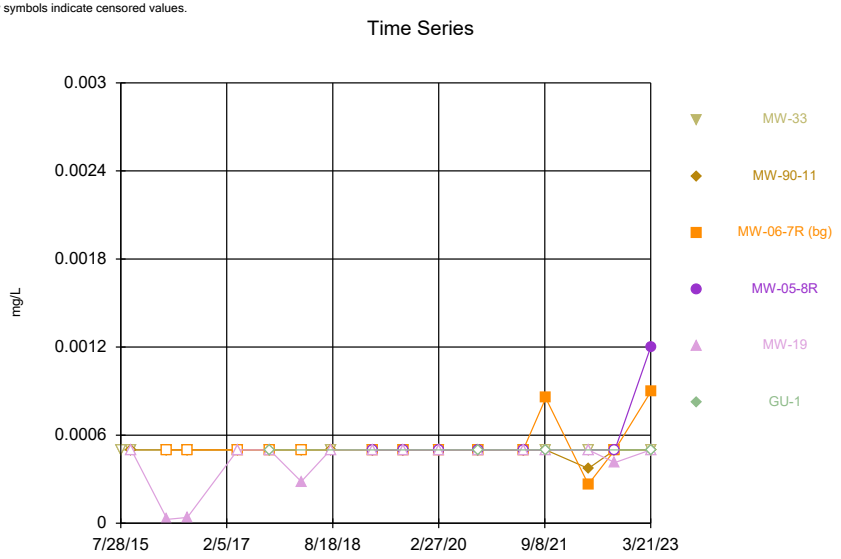

Constituent: Thallium Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
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Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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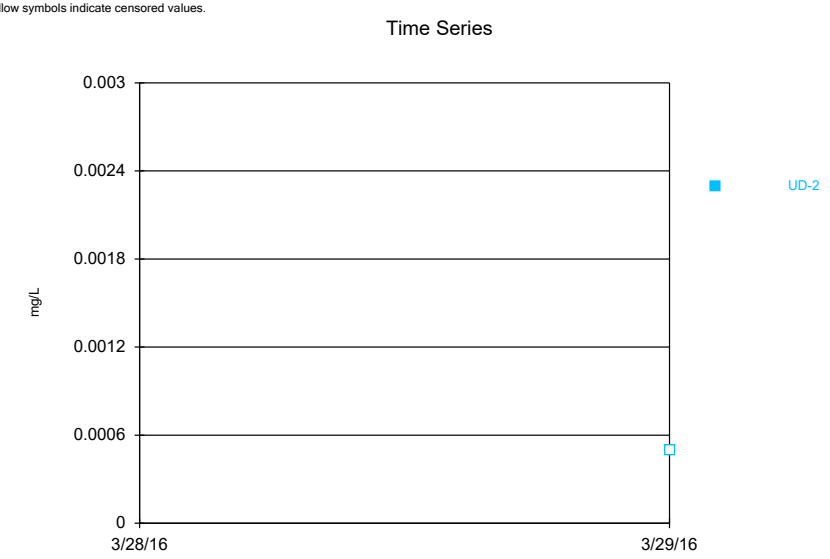

Constituent: Thallium Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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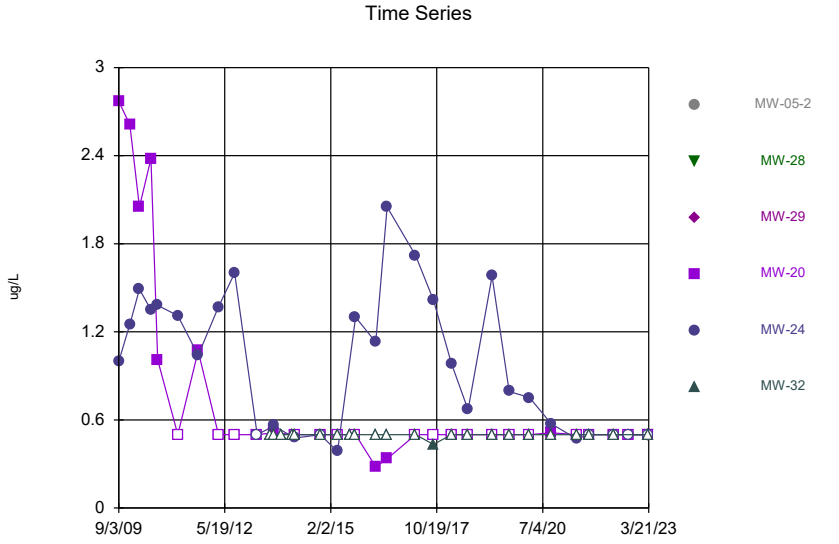
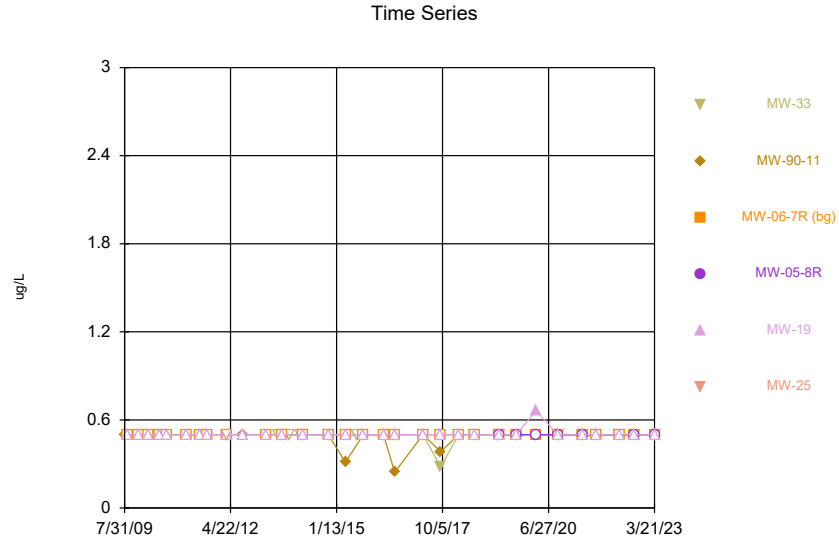


Constituent: Trichloroethene Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

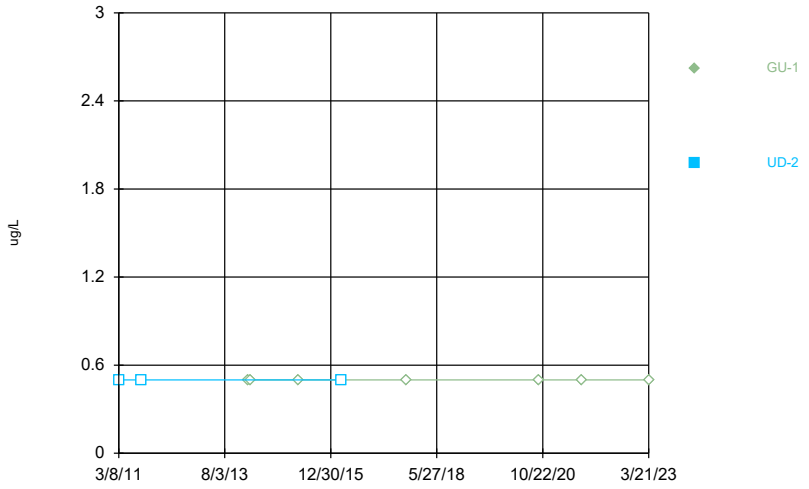
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Trichloroethene Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

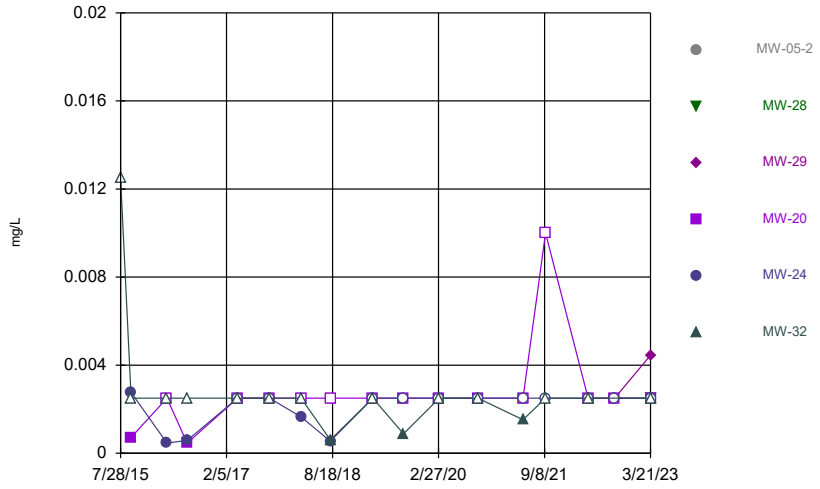
Time Series



Constituent: Trichloroethene Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

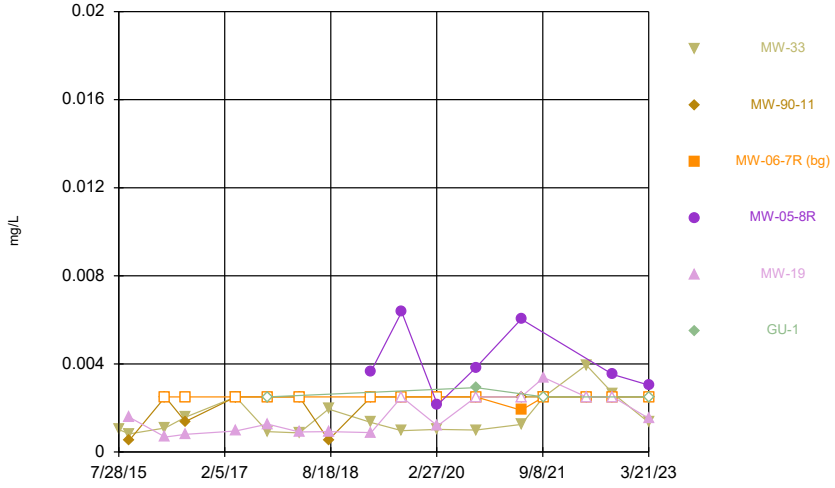
Time Series



Constituent: Vanadium Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

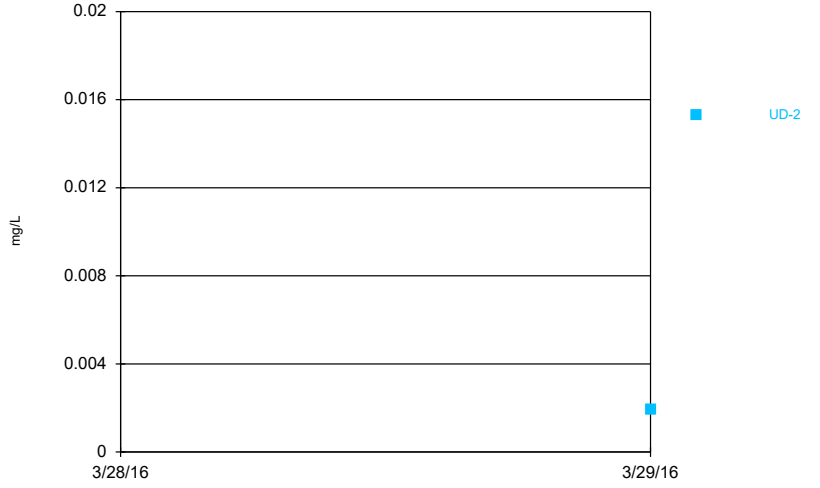
Time Series



Constituent: Vanadium Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

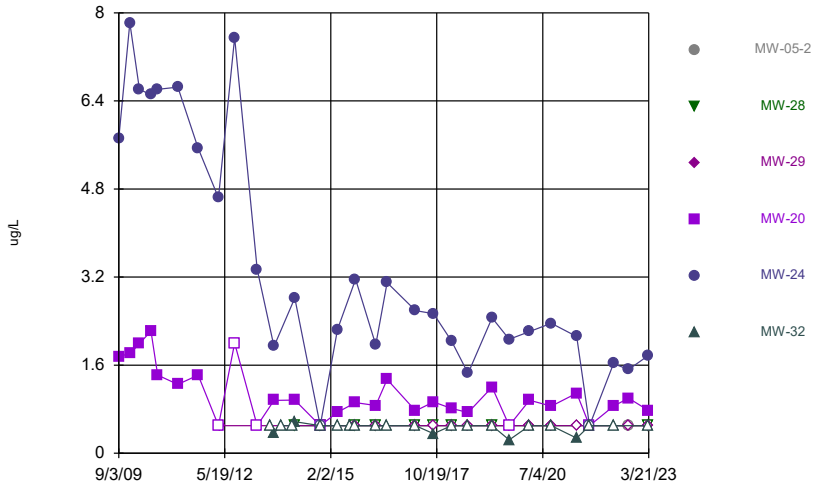
Time Series



Constituent: Vanadium Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

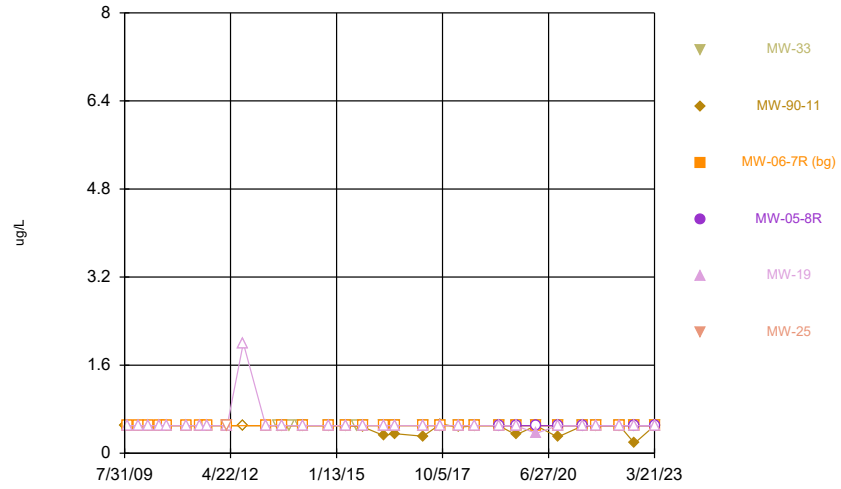
Time Series



Constituent: Vinyl chloride Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

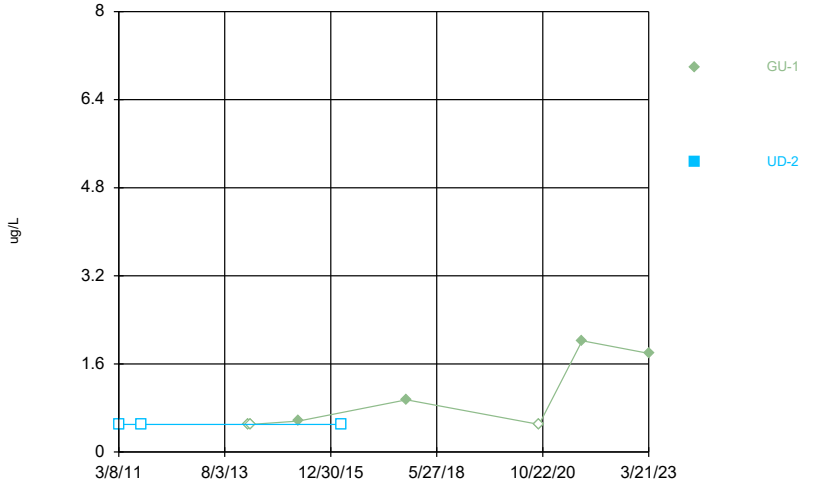
Time Series



Constituent: Vinyl chloride Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Vinyl chloride Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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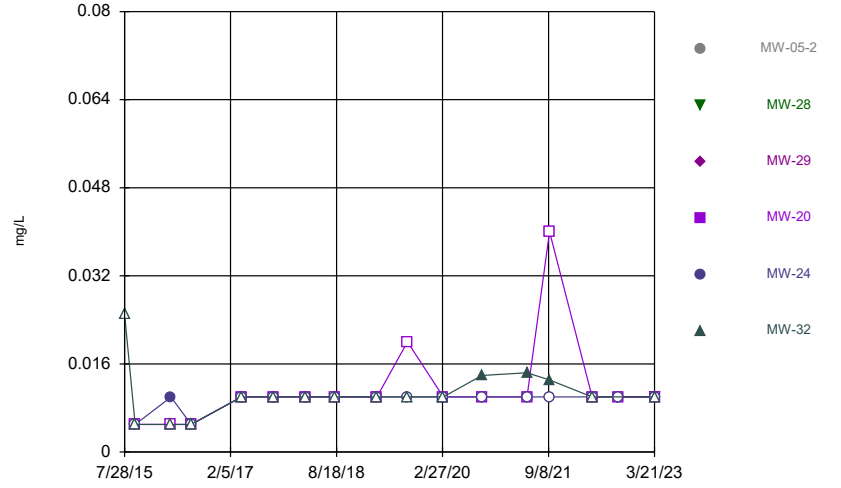
Time Series



Constituent: Zinc Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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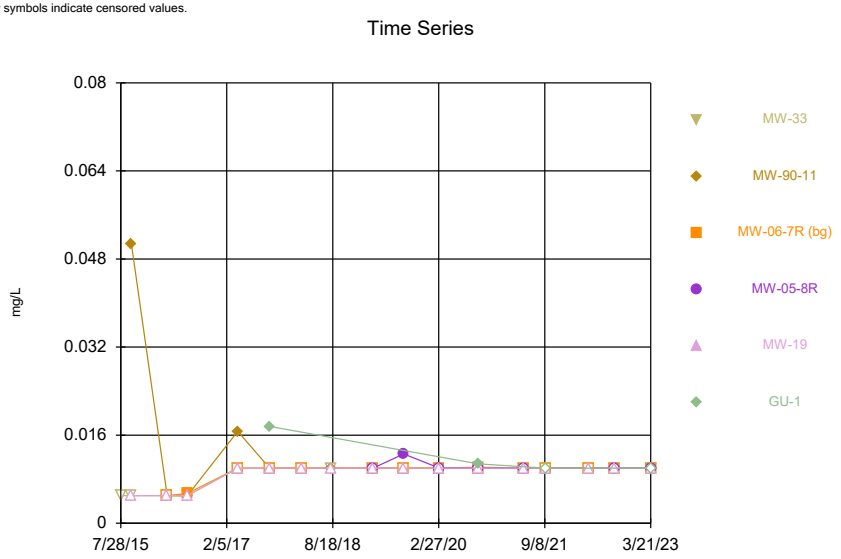
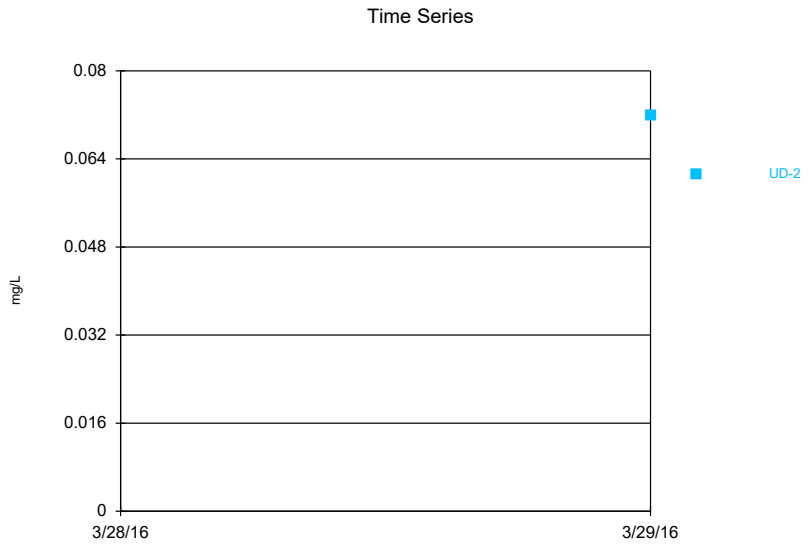
Hollow symbols indicate censored values.



Constituent: Zinc Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Zinc Analysis Run 5/5/2023 5:28 PM View: 2023SSN - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Time Series Plots

Bedrock

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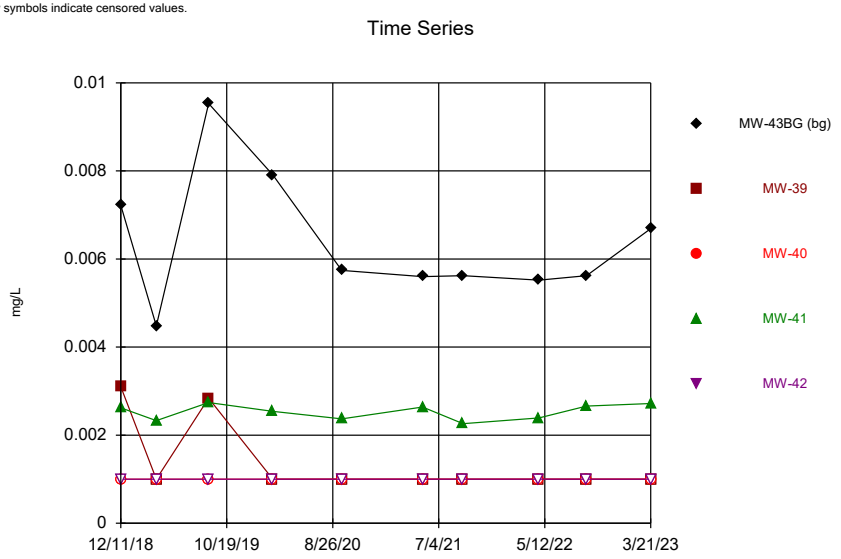
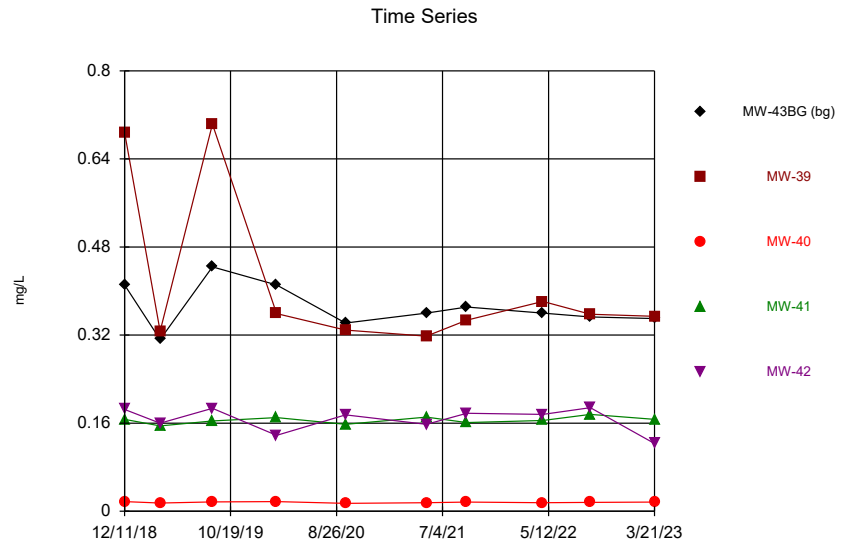
Hollow symbols indicate censored values.



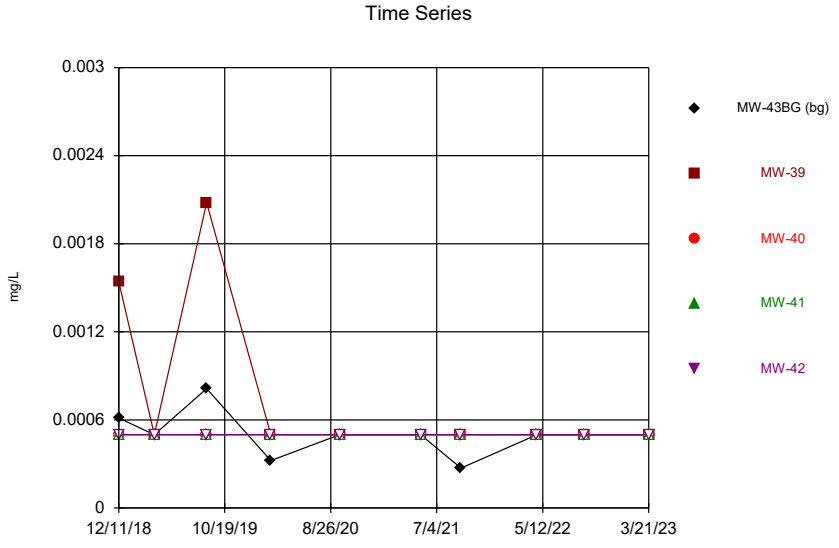
Constituent: Arsenic Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Barium Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Beryllium Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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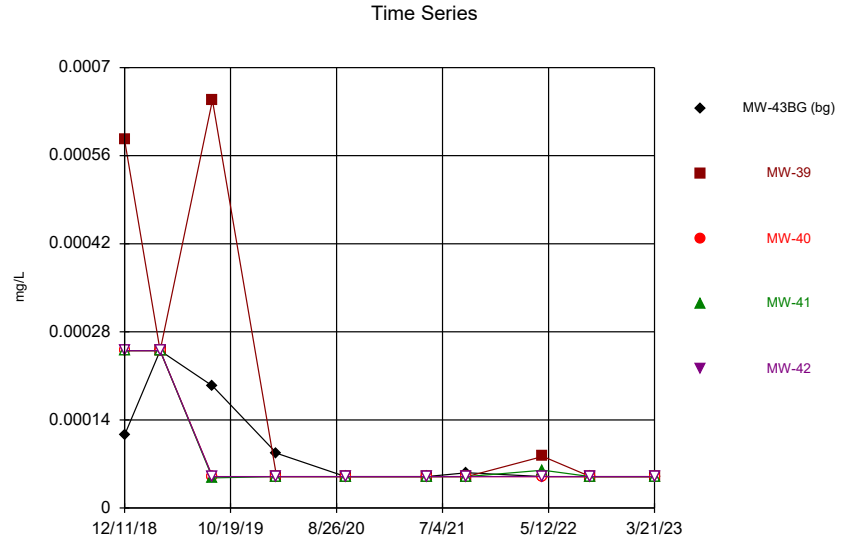

Constituent: Cadmium Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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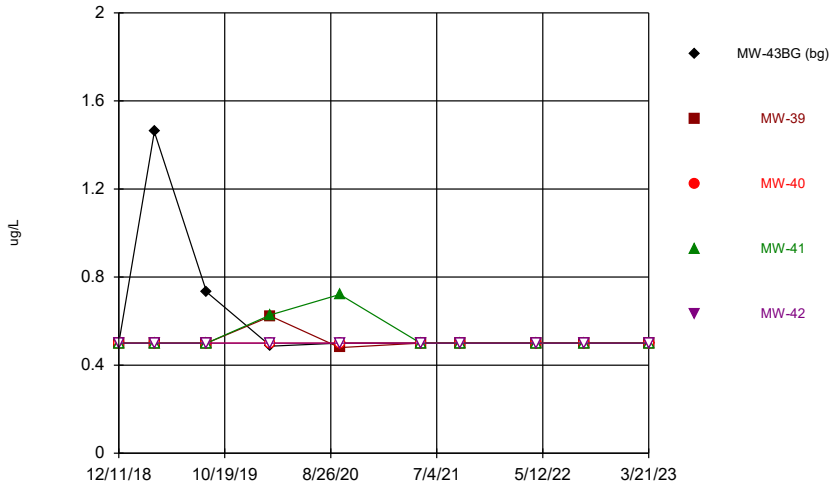
Hollow symbols indicate censored values.

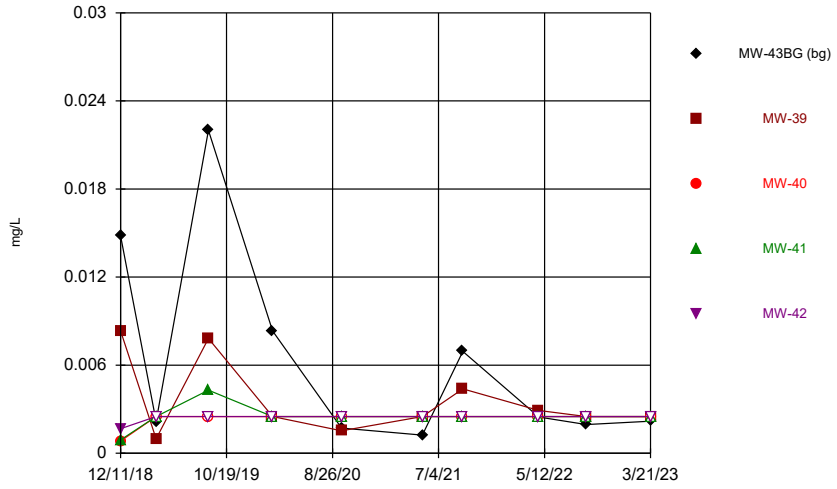
Time Series



Constituent: Carbon disulfide Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

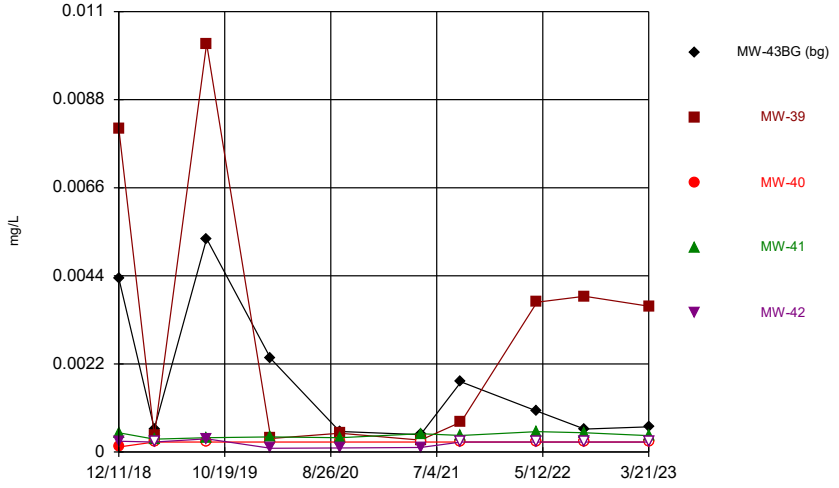
Time Series



Constituent: Chromium Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

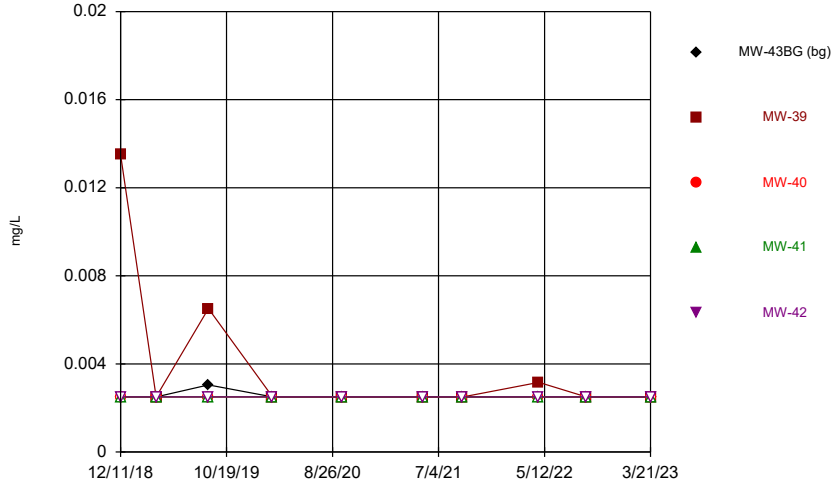
Time Series



Constituent: Cobalt Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

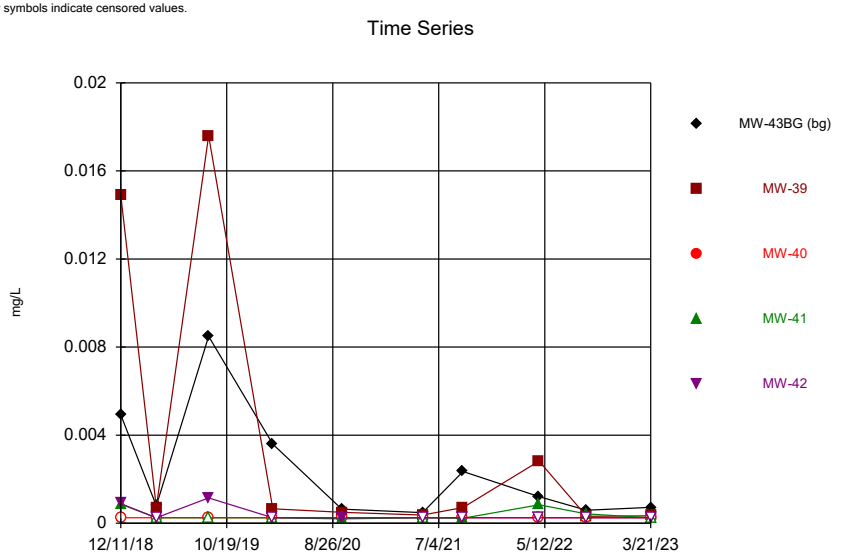
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



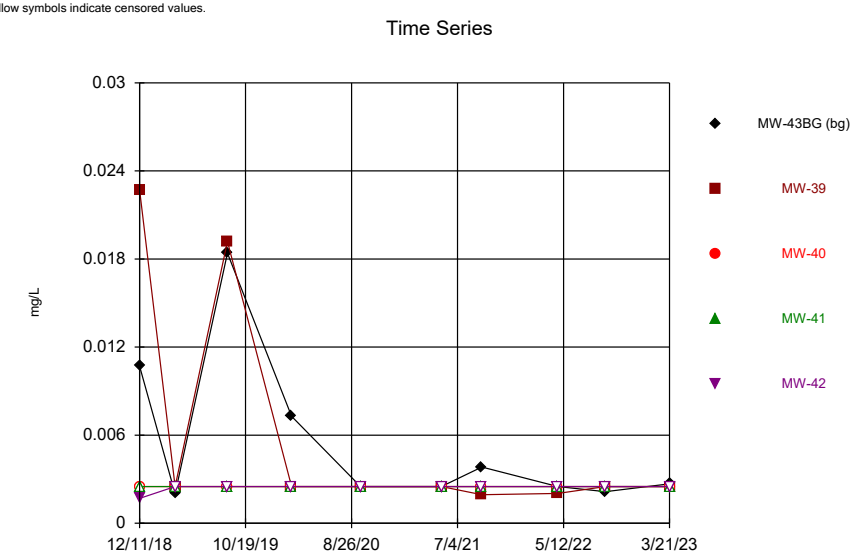
Constituent: Copper Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



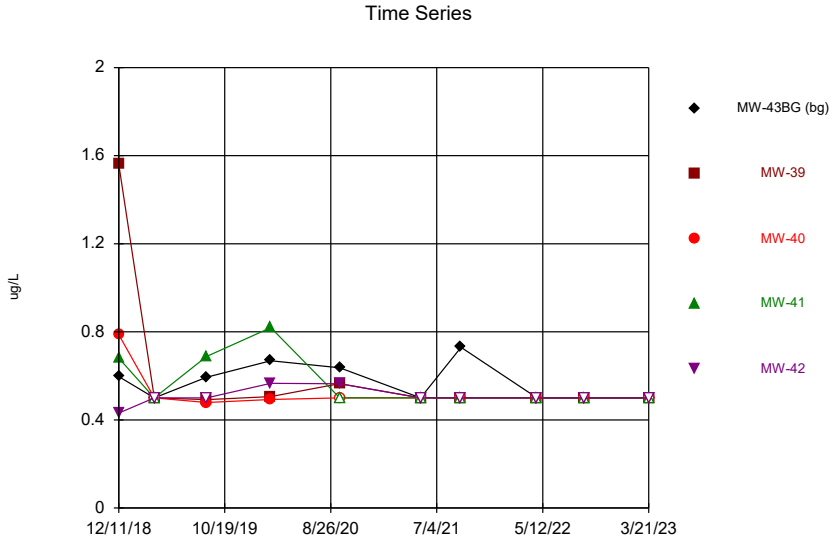
Constituent: Lead Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



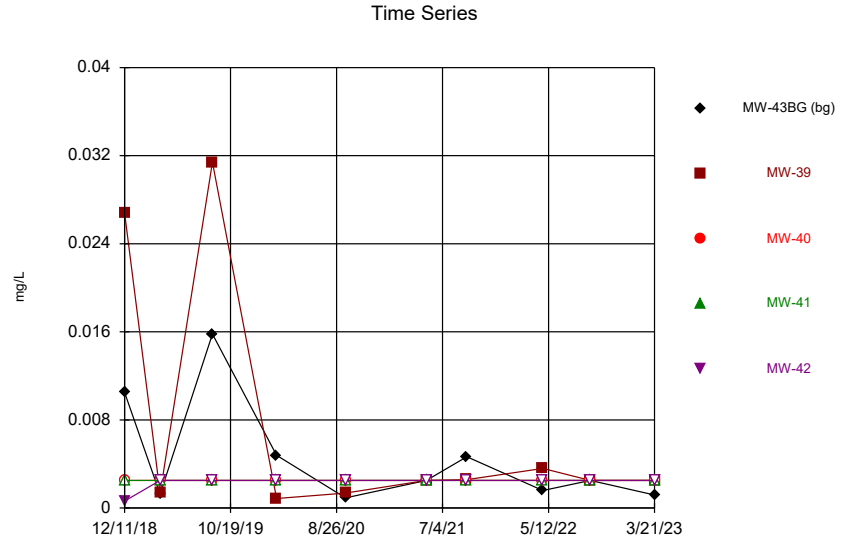
Constituent: Nickel Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



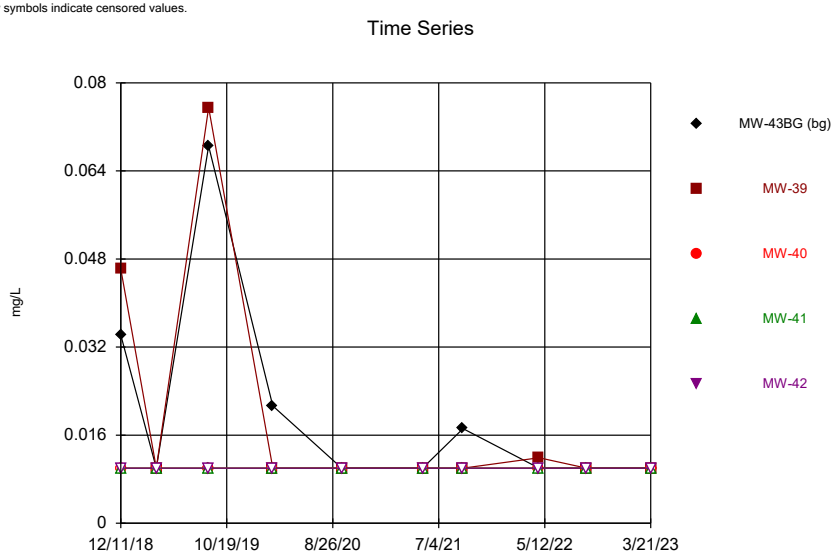
Constituent: Toluene Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Vanadium Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Zinc Analysis Run 5/5/2023 5:30 PM View: 2023SSN - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Outlier Tests Summary Table and Graphs

Water Table Aquifer – MW-06-7R

Outlier Analysis

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 5/5/2023, 5:41 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Normality Test
Arsenic (mg/L)	MW-06-7R (bg)	No	n/a	n/a	EPA/OH	0.05	14	0.002599	0.001884	ShapiroWilk
Barium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	EPA/OH	0.05	14	0.1875	0.1084	ShapiroWilk
Cadmium (mg/L)	**MW-06-7R (bg)**	**Yes**	**0.00025,0.00025,0.00025,0.00025**	**3/29/2016,7/13/2016,3/5/2018,3/19/2019**	**OH**	**NaN**	**14**	**0.0001272**	**0.00009009**	**n/a**
Cobalt (mg/L)	MW-06-7R (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	14	0.0002188	0.00008444	ShapiroWilk
Lead (mg/L)	**MW-06-7R (bg)**	**Yes**	**0.0021,0.000163,0.000307**	**3/5/2018,9/22/2020,3/21/2023**	**NP (nrm)/OH**	**NaN**	**14**	**0.0003813**	**0.0004955**	**ShapiroWilk**
Nickel (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	14	0.002513	0.00004811	n/a
Selenium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	14	0.002365	0.0003438	n/a
Silver (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	14	0.0005849	0.0002432	n/a
Thallium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	14	0.0005366	0.0001562	n/a
Vanadium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	14	0.002457	0.0001604	n/a
Zinc (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	14	0.009316	0.001741	n/a

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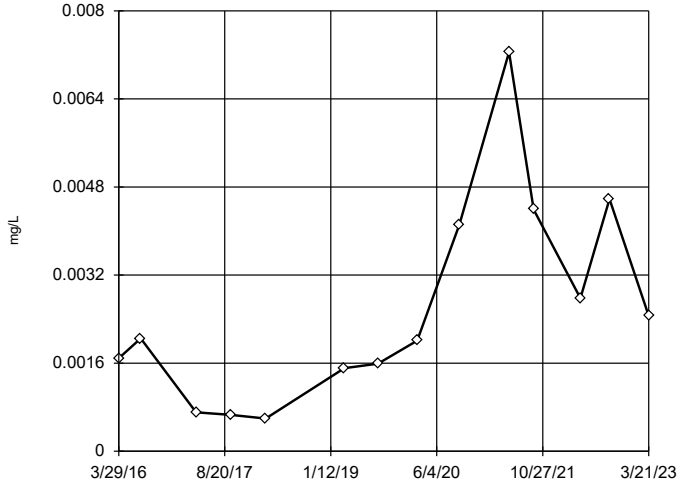
EPA Screening (suspected outliers for Dixon's Test)

MW-06-7R (bg)



n = 14

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.002599, std. dev. 0.001884, critical Tn 2.371

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8807
Critical = 0.825
The distribution was found to be normally distributed.

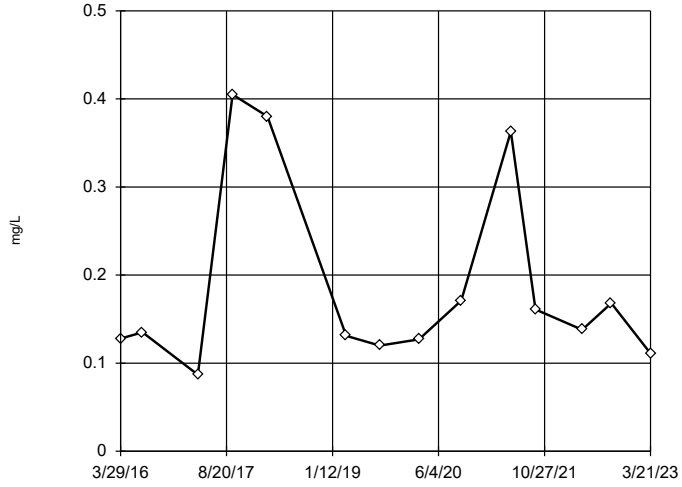
Constituent: Arsenic Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

EPA Screening (suspected outliers for Dixon's Test)

MW-06-7R (bg)



n = 14

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.1875, std. dev. 0.1084, critical Tn 2.371

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8296
Critical = 0.825 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Barium Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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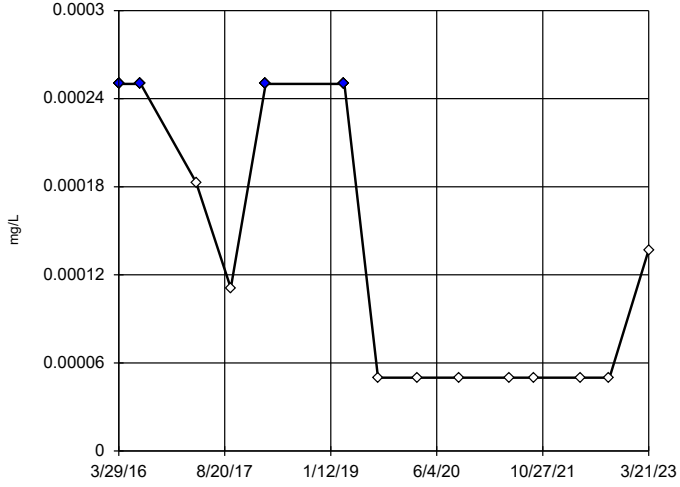
Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 14

Statistical outliers are drawn as solid.
Outliers per Ohio method.

Constituent: Cadmium Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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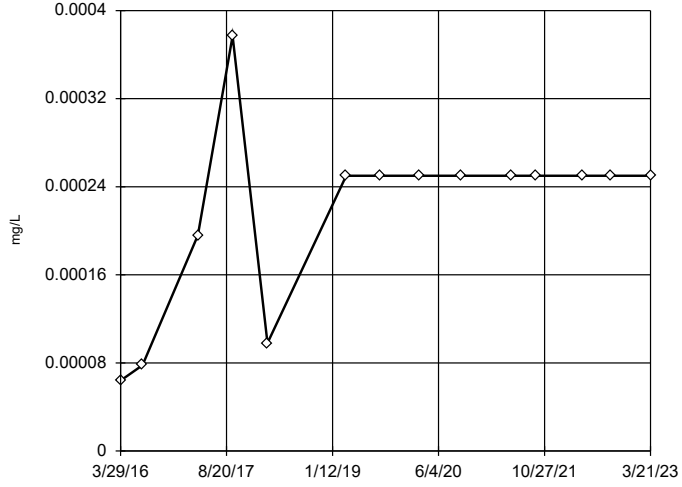
Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 14

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

High cutoff = 0.000559, low cutoff = -0.000162, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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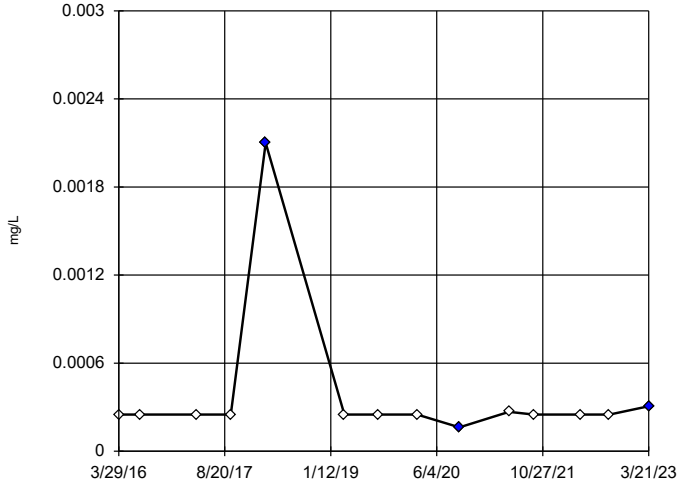
Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 14

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

High cutoff = 0.000286, low cutoff = 0.000223, based on IQR multiplier of 3.

Constituent: Lead Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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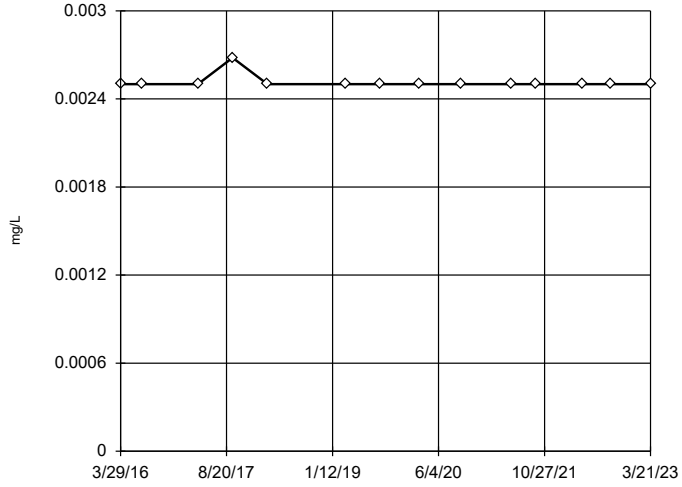
Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 14

No statistical outliers.

Constituent: Nickel Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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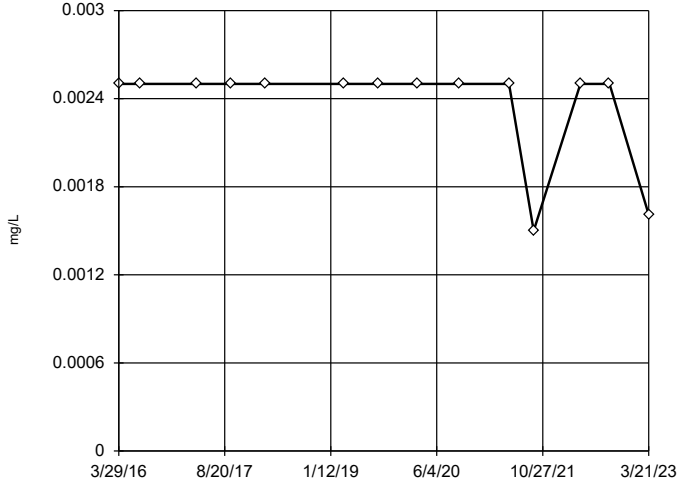
Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 14

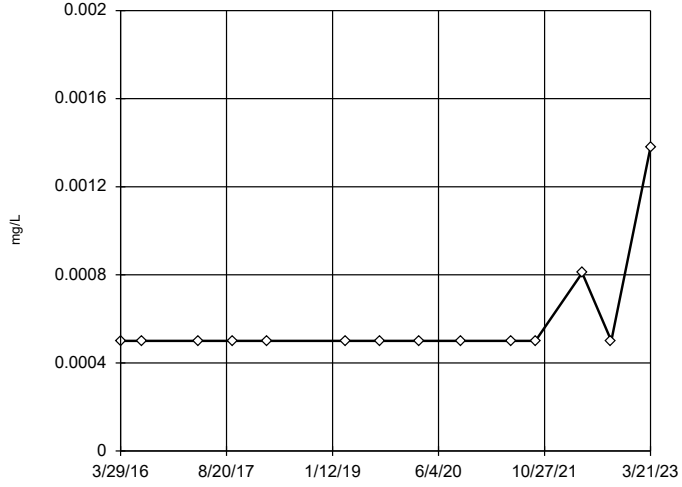
No statistical outliers.

Constituent: Selenium Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 14

No statistical outliers.

Constituent: Silver Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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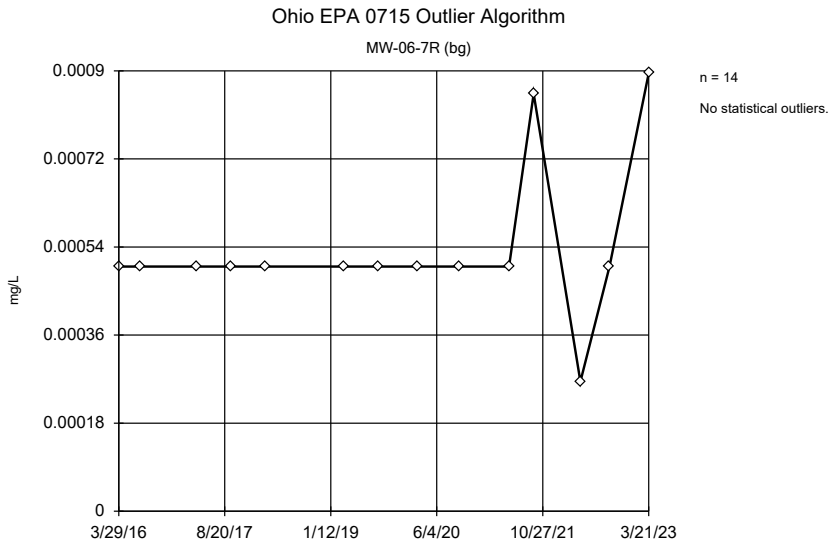
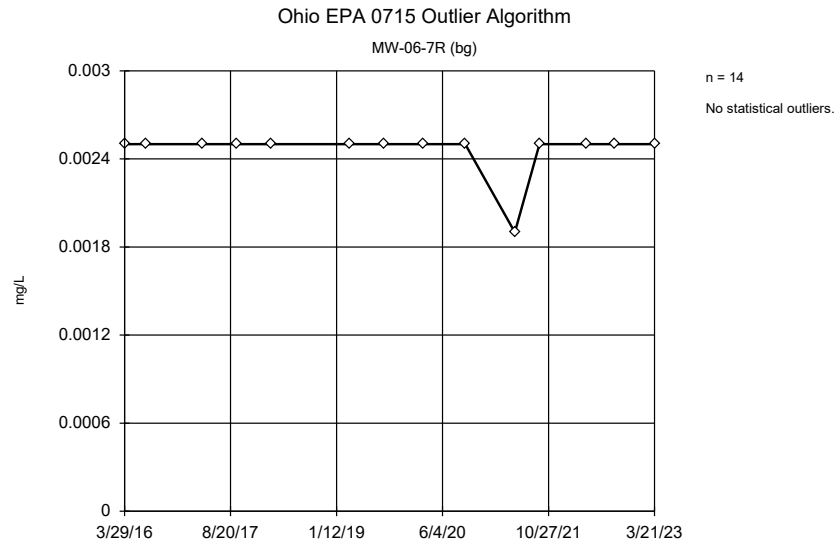


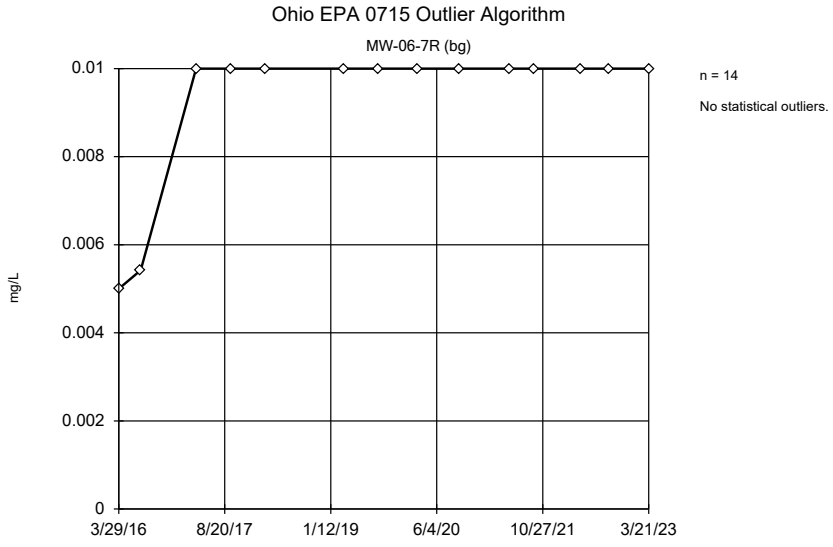
Constituent: Thallium Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Vanadium Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Zinc Analysis Run 5/5/2023 5:38 PM View: 2023SSN - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Interwell Prediction Limit Summary Table and Graphs
Water Table Aquifer

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 5/5/2023, 6:23 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Barium (mg/L)	MW-28	0.5867	n/a	3/21/2023	0.106	No	14	0	ln(x)	0.000532	Param Inter 1 of 2
Barium (mg/L)	MW-29	0.5867	n/a	3/21/2023	0.13	No	14	0	ln(x)	0.000532	Param Inter 1 of 2
Barium (mg/L)	MW-05-8R	0.5867	n/a	3/21/2023	0.283	No	14	0	ln(x)	0.000532	Param Inter 1 of 2
Barium (mg/L)	MW-19	0.5867	n/a	3/21/2023	0.176	No	14	0	ln(x)	0.000532	Param Inter 1 of 2
Cadmium (mg/L)	MW-05-8R	0.00025	n/a	3/21/2023	0.000194	No	14	78.57	n/a	0.00693	NP Inter (NDs) 1 of 2
Lead (mg/L)	MW-05-8R	0.0021	n/a	3/21/2023	0.000618	No	14	71.43	n/a	0.00693	NP Inter (NDs) 1 of 2
Lead (mg/L)	MW-19	0.0021	n/a	3/21/2023	0.000714	No	14	71.43	n/a	0.00693	NP Inter (NDs) 1 of 2
Nickel (mg/L)	**MW-05-8R**	**0.00268**	**n/a**	**3/21/2023**	**0.00508**	**Yes**	**14**	**92.86**	**n/a**	**0.00693**	**NP Inter (NDs) 1 of 2**
Silver (mg/L)	**MW-05-8R**	**0.00138**	**n/a**	**3/21/2023**	**0.00139**	**Yes**	**14**	**85.71**	**n/a**	**0.00693**	**NP Inter (NDs) 1 of 2**
Thallium (mg/L)	**MW-05-8R**	**0.000895**	**n/a**	**3/21/2023**	**0.0012**	**Yes**	**14**	**78.57**	**n/a**	**0.00693**	**NP Inter (NDs) 1 of 2**

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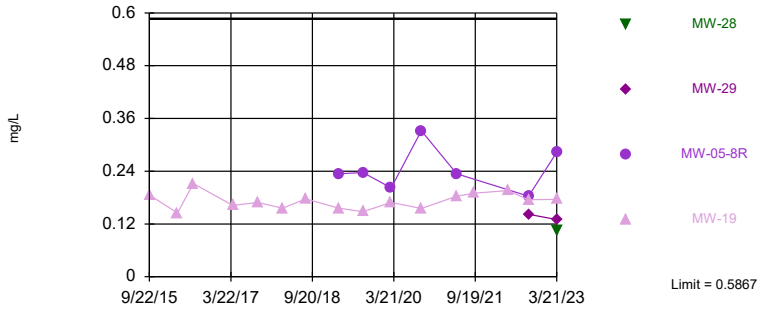
Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.797, Std. Dev.=0.4847, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8296, critical = 0.825. Kappa = 2.607 (c=11, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.004778. Individual comparison alpha = 0.000532. Comparing 4 points to limit. Assumes 5 future values.

Constituent: Barium Analysis Run 5/5/2023 6:21 PM View: 2023SSN - PL - Main + AZPOC

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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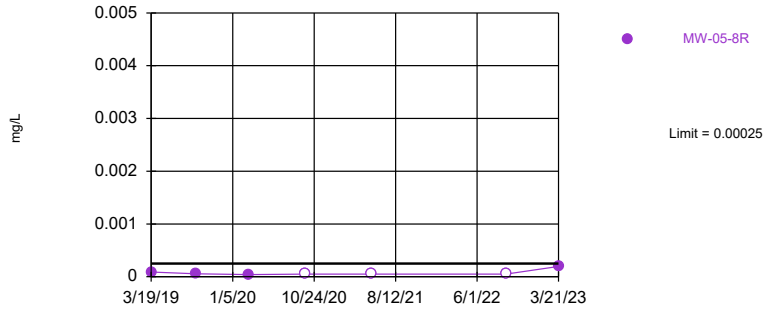
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 78.57% NDs. Annual per-constituent alpha = 0.1177. Individual comparison alpha = 0.00693 (1 of 2). Assumes 8 future values.

Constituent: Cadmium Analysis Run 5/5/2023 6:21 PM View: 2023SSN - PL - Main + AZPOC

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

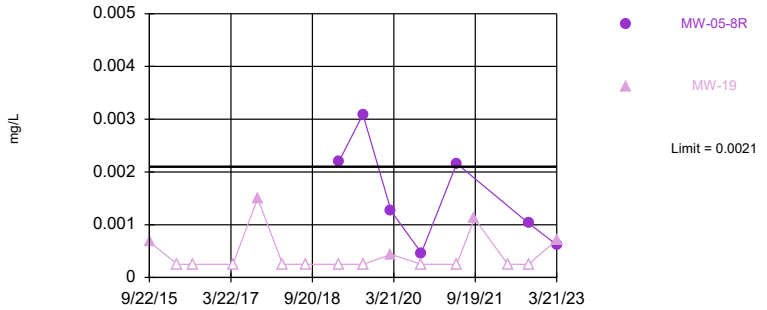
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 71.43% NDs. Annual per-constituent alpha = 0.1177. Individual comparison alpha = 0.00693 (1 of 2). Comparing 2 points to limit. Assumes 7 future values.

Constituent: Lead Analysis Run 5/5/2023 6:21 PM View: 2023SSN - PL - Main + AZPOC

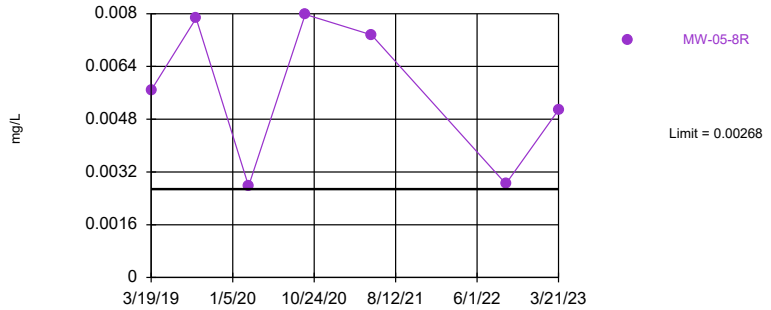
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-05-8R

Prediction Limit

Interwell Non-parametric

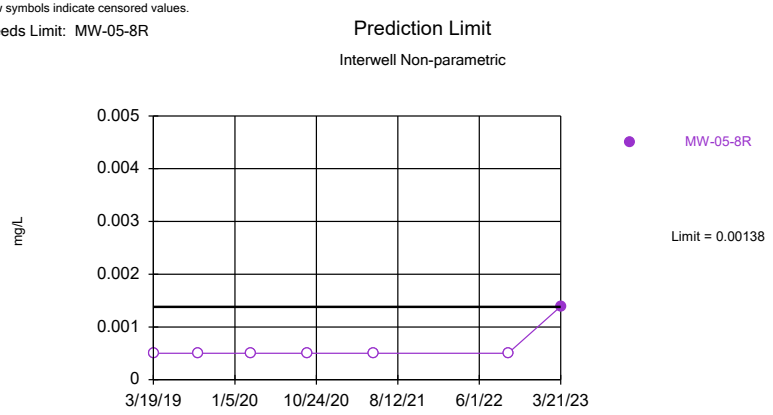


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Annual per-constituent alpha = 0.1177. Individual comparison alpha = 0.00693 (1 of 2). Assumes 8 future values.

Constituent: Nickel Analysis Run 5/5/2023 6:21 PM View: 2023SSN - PL - Main + AZPOC

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

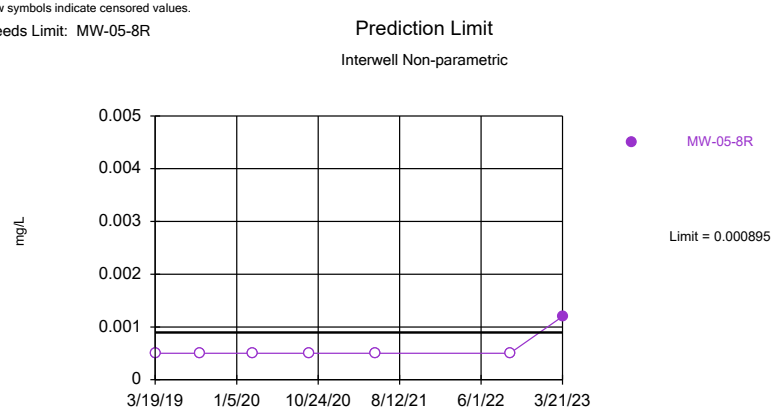
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Exceeds Limit: MW-05-8R



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 85.71% NDs. Annual per-constituent alpha = 0.1177. Individual comparison alpha = 0.00693 (1 of 2). Assumes 8 future values.

Constituent: Silver Analysis Run 5/5/2023 6:21 PM View: 2023SSN - PL - Main + AZPOC
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Exceeds Limit: MW-05-8R



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 78.57% NDs. Annual per-constituent alpha = 0.1177. Individual comparison alpha = 0.00693 (1 of 2). Assumes 8 future values.

Constituent: Thallium Analysis Run 5/5/2023 6:21 PM View: 2023SSN - PL - Main + AZPOC
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Intrawell Prediction Limit Summary Table and Graphs
Bedrock

Prediction Limit

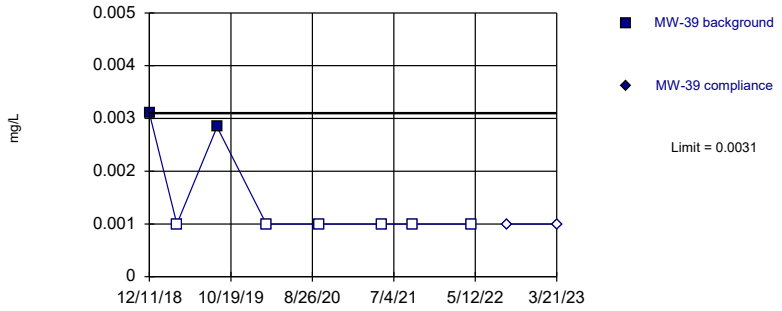
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 5/8/2023, 10:42 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Arsenic (mg/L)	MW-39	0.0031	n/a	3/21/2023	0.001ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-39	0.703	n/a	3/21/2023	0.354	No	8	0	n/a	0.02144	NP Intra (normality) 1 of 2
Beryllium (mg/L)	MW-39	0.00208	n/a	3/21/2023	0.0005ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Cadmium (mg/L)	MW-39	0.000648	n/a	3/21/2023	0.00005ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-39	0.01175	n/a	3/21/2023	0.0025ND	No	8	25	No	0.001097	Param Intra 1 of 2
Cobalt (mg/L)	MW-39	0.02131	n/a	3/21/2023	0.00364	No	8	0	sqrt(x)	0.001097	Param Intra 1 of 2
Copper (mg/L)	MW-39	0.0135	n/a	3/21/2023	0.0025ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-39	0.1477	n/a	3/21/2023	0.000338J	No	8	0	ln(x)	0.001097	Param Intra 1 of 2
Nickel (mg/L)	MW-39	0.0227	n/a	3/21/2023	0.0025ND	No	8	50	n/a	0.02144	NP Intra (normality) 1 of 2
Selenium (mg/L)	MW-39	0.0025	n/a	3/21/2023	0.0025ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-39	0.07673	n/a	3/21/2023	0.0025ND	No	8	12.5	x^(1/3)	0.001097	Param Intra 1 of 2
Zinc (mg/L)	MW-39	0.0755	n/a	3/21/2023	0.01ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



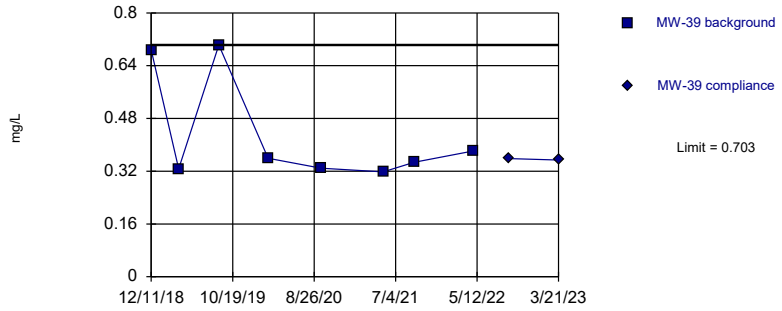
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Arsenic Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Within Limit

Prediction Limit

Intrawell Non-parametric



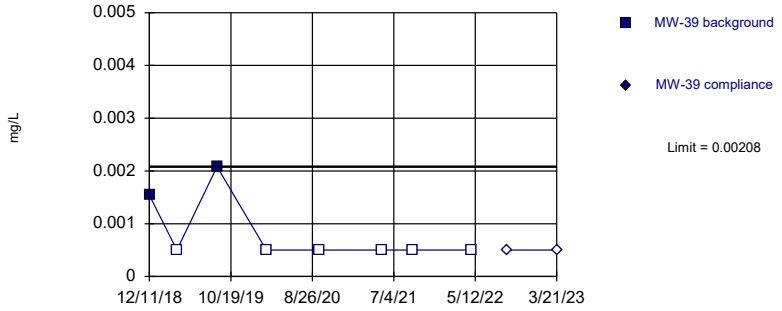
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Barium Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



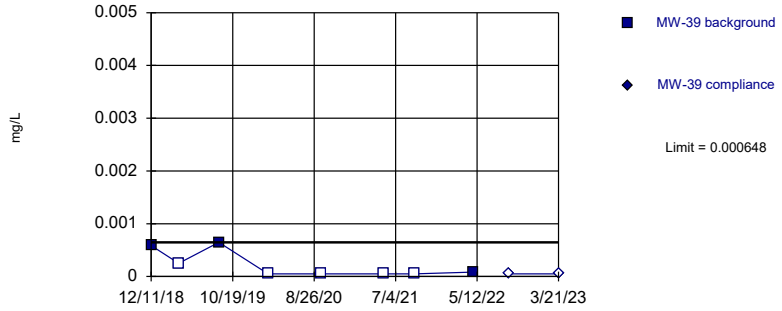
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Beryllium Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

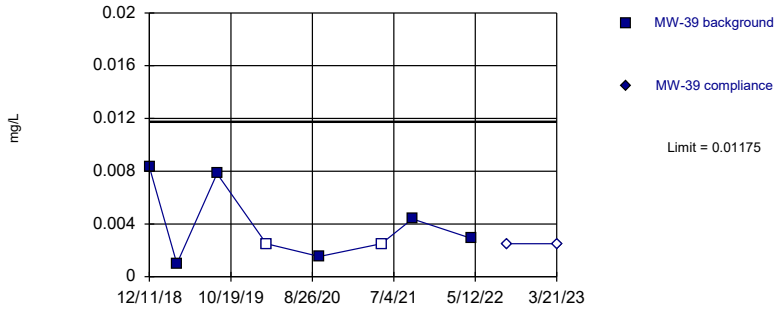
Constituent: Cadmium Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.003856, Std. Dev.=0.002693, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8495, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

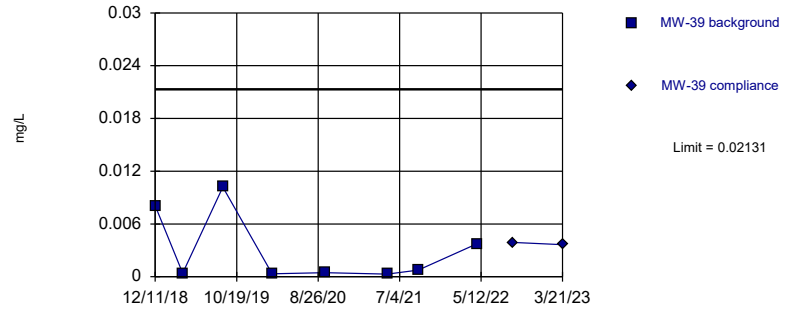
Constituent: Chromium Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.04459, Std. Dev.=0.03457, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7798, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

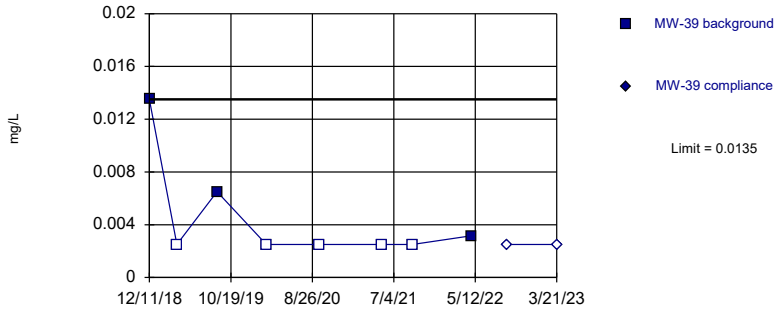
Constituent: Cobalt Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

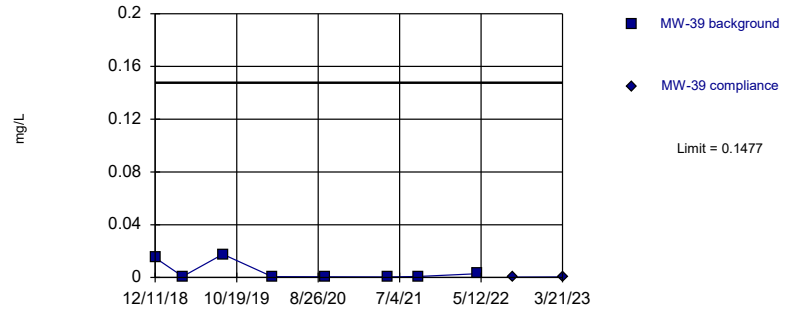
Constituent: Copper Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



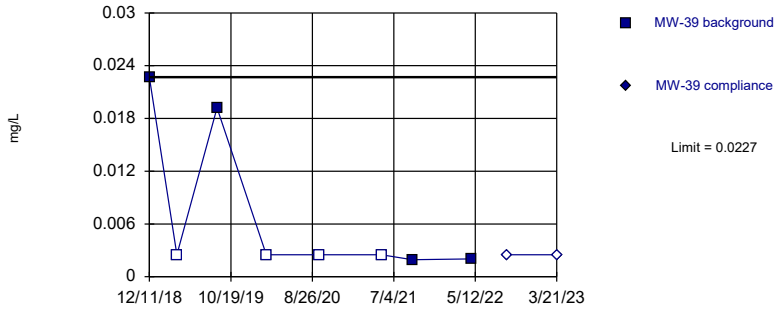
Background Data Summary (based on natural log transformation): Mean=-6.427, Std. Dev.=1.54, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8069, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Lead Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



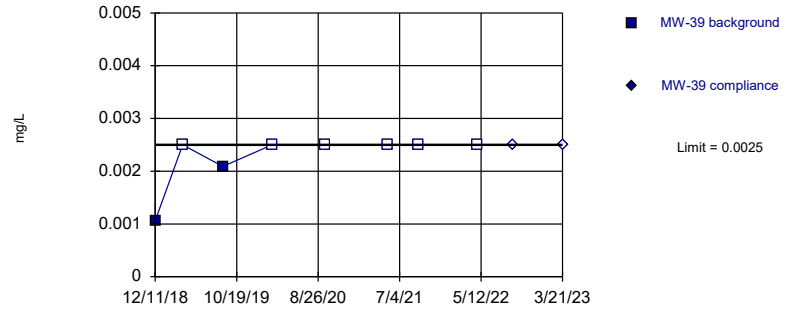
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 50% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Nickel Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



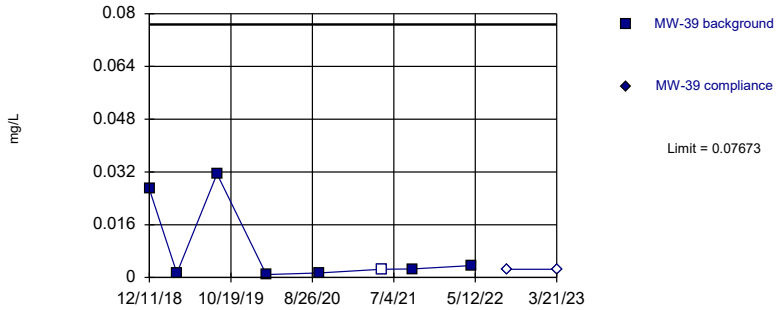
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Selenium Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



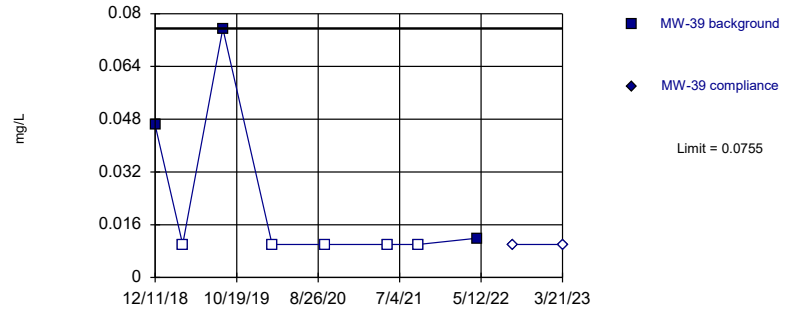
Background Data Summary (based on cube root transformation): Mean=0.1696, Std. Dev.=0.08708, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7579, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Vanadium Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Zinc Analysis Run 5/8/2023 10:41 AM View: 2023SSN - MW-39 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 5/8/2023, 10:55 AM

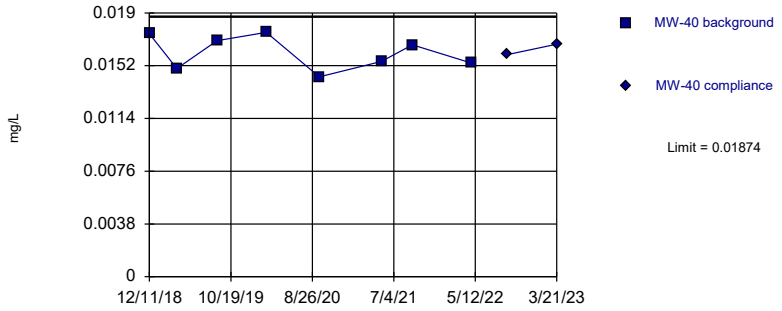
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Barium (mg/L)	MW-40	0.01874	n/a	3/21/2023	0.01675	No	8	0	No	0.00438	Param Intra 1 of 2
Chromium (mg/L)	MW-40	0.0025	n/a	3/21/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-40	0.00025	n/a	3/21/2023	0.00025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.01614, Std. Dev.=0.001214, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9157, critical = 0.749. Kappa = 2.14 (c=3, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00438.

Constituent: Barium Analysis Run 5/8/2023 10:54 AM View: 2023SSN - MW-40 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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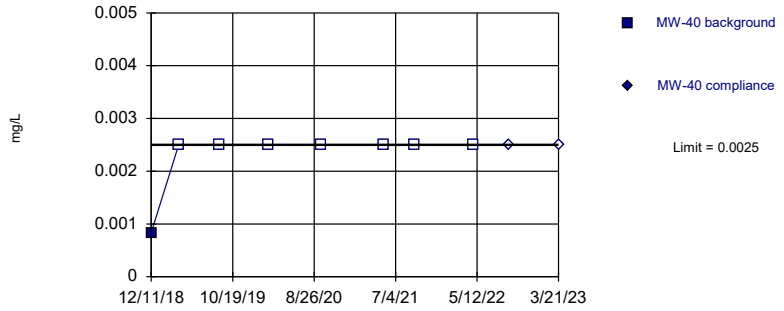
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chromium Analysis Run 5/8/2023 10:54 AM View: 2023SSN - MW-40 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

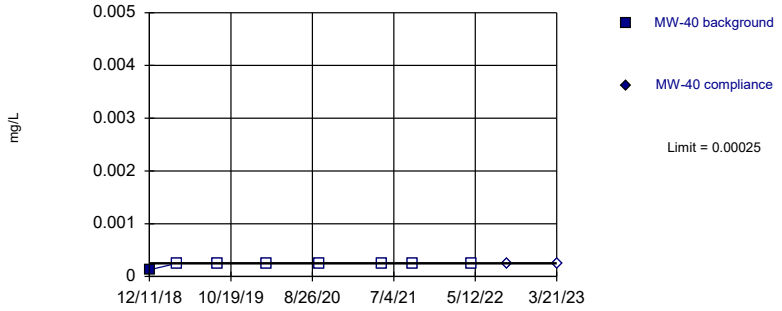
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Cobalt Analysis Run 5/8/2023 10:54 AM View: 2023SSN - MW-40 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 5/8/2023, 10:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Arsenic (mg/L)	MW-41	0.002923	n/a	3/21/2023	0.00272	No	8	0	No	0.002193	Param Intra 1 of 2
Barium (mg/L)	MW-41	0.1781	n/a	3/21/2023	0.167	No	8	0	No	0.002193	Param Intra 1 of 2
Cadmium (mg/L)	MW-41	0.00025	n/a	3/21/2023	0.00005ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-41	0.0043	n/a	3/21/2023	0.0025ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-41	0.0005807	n/a	3/21/2023	0.00041J	No	8	0	No	0.002193	Param Intra 1 of 2
Lead (mg/L)	MW-41	0.000869	n/a	3/21/2023	0.00025ND	No	8	50	n/a	0.02144	NP Intra (normality) 1 of 2

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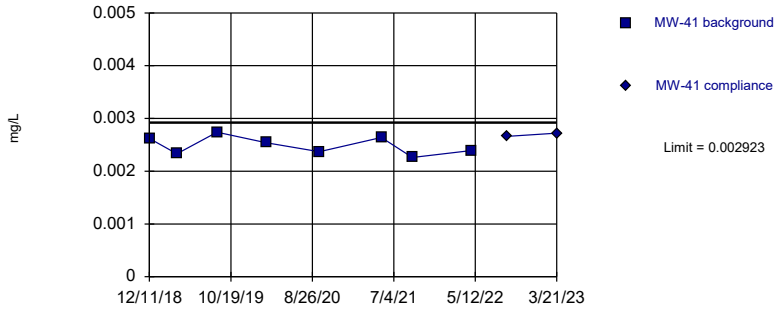
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.002486, Std. Dev.=0.000172, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.749. Kappa = 2.538 (c=6, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.002193.

Constituent: Arsenic Analysis Run 5/8/2023 10:57 AM View: 2023SSN - MW-41 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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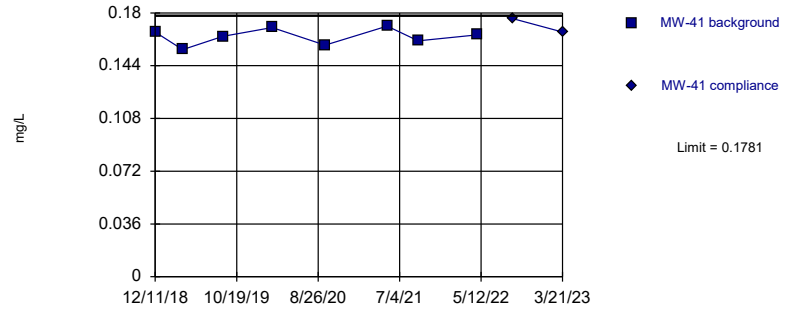
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1639, Std. Dev.=0.005617, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.749. Kappa = 2.538 (c=6, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.002193.

Constituent: Barium Analysis Run 5/8/2023 10:57 AM View: 2023SSN - MW-41 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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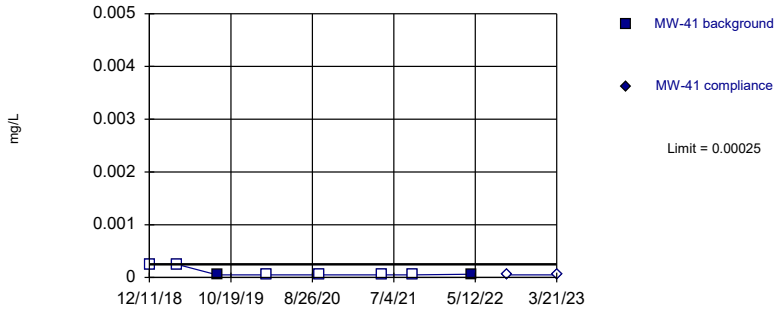
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Cadmium Analysis Run 5/8/2023 10:57 AM View: 2023SSN - MW-41 IntraPL

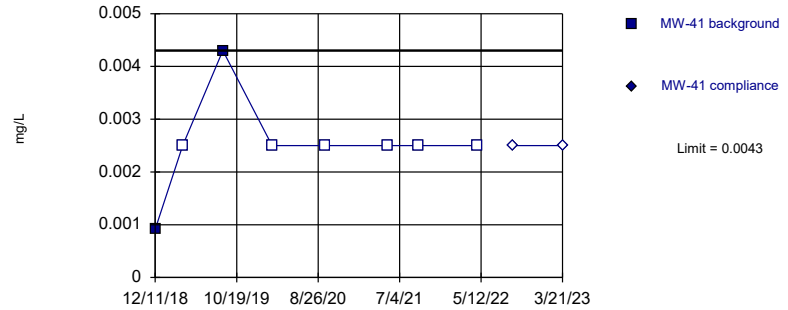
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chromium Analysis Run 5/8/2023 10:57 AM View: 2023SSN - MW-41 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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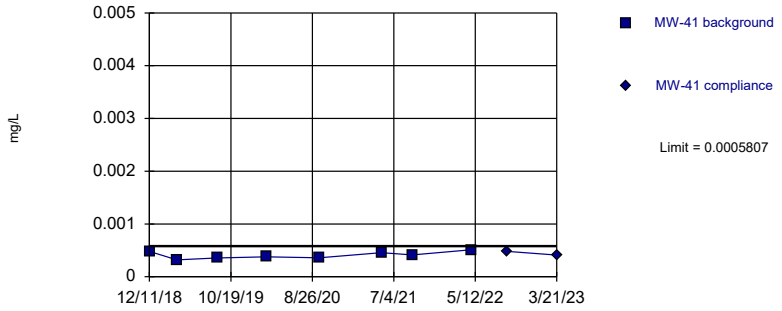
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.0004088, Std. Dev.=0.00006774, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9406, critical = 0.749. Kappa = 2.538 (c=6, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.002193.

Constituent: Cobalt Analysis Run 5/8/2023 10:57 AM View: 2023SSN - MW-41 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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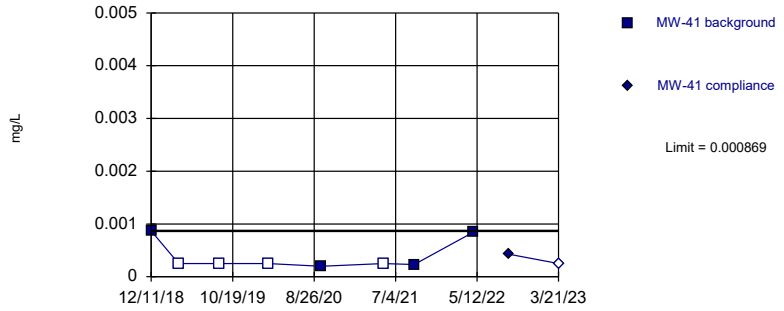
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 50% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Lead Analysis Run 5/8/2023 10:57 AM View: 2023SSN - MW-41 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 5/8/2023, 11:06 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Barium (mg/L)	MW-42	0.2128	n/a	3/21/2023	0.123	No	8	0	No	0.00188	Param Intra 1 of 2
Chromium (mg/L)	MW-42	0.0025	n/a	3/21/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-42	0.0004407	n/a	3/21/2023	0.00025ND	No	8	37.5	No	0.00188	Param Intra 1 of 2
Lead (mg/L)	MW-42	0.00115	n/a	3/21/2023	0.00025ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-42	0.0025	n/a	3/21/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Selenium (mg/L)	MW-42	0.002836	n/a	3/21/2023	0.00139J	No	8	0	No	0.00188	Param Intra 1 of 2
Vanadium (mg/L)	MW-42	0.0025	n/a	3/21/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2

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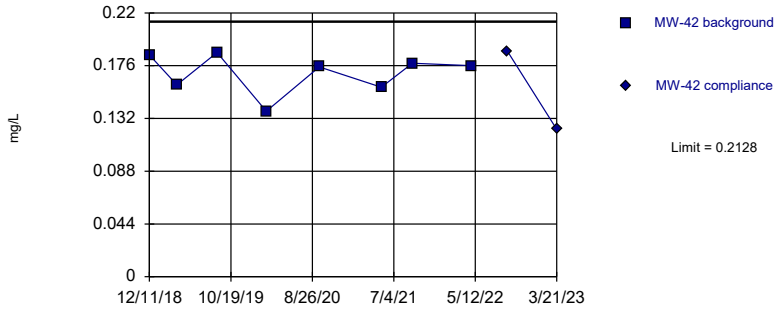
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1696, Std. Dev.=0.0165, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8989, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Barium Analysis Run 5/8/2023 11:03 AM View: 2023SSN - MW-42 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

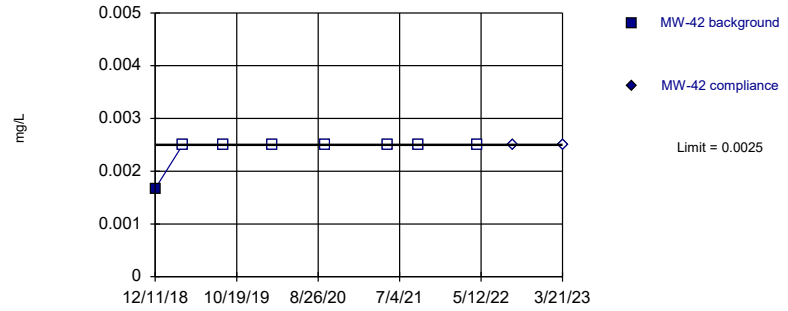
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chromium Analysis Run 5/8/2023 11:03 AM View: 2023SSN - MW-42 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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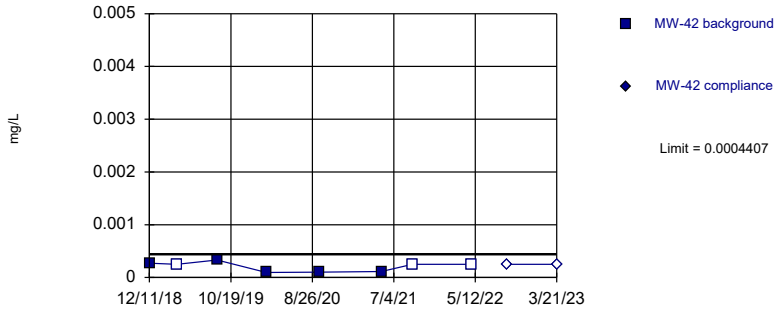
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0001818, Std. Dev.=0.00009897, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8416, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Cobalt Analysis Run 5/8/2023 11:03 AM View: 2023SSN - MW-42 IntraPL

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

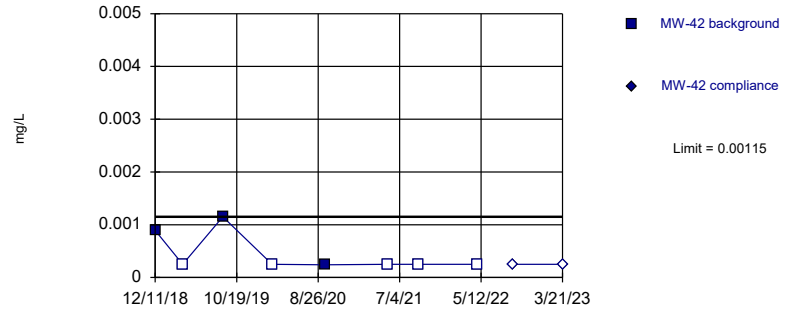
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Lead Analysis Run 5/8/2023 11:03 AM View: 2023SSN - MW-42 IntraPL

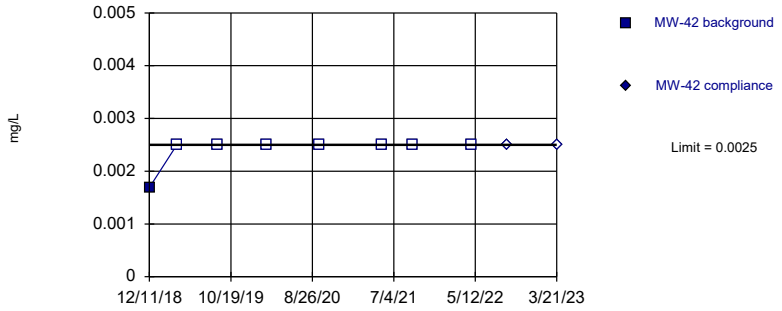
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Nickel Analysis Run 5/8/2023 11:03 AM View: 2023SSN - MW-42 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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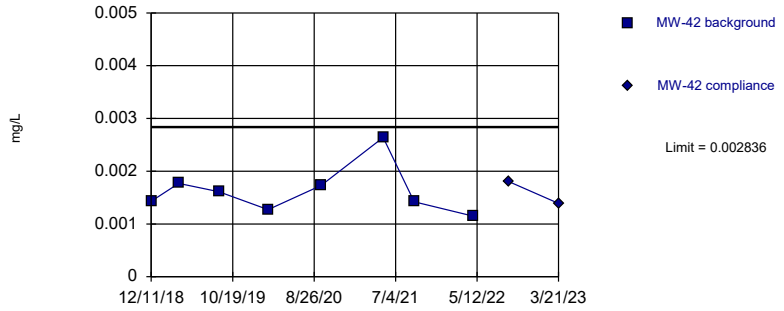
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.001628, Std. Dev.=0.000462, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8457, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Selenium Analysis Run 5/8/2023 11:03 AM View: 2023SSN - MW-42 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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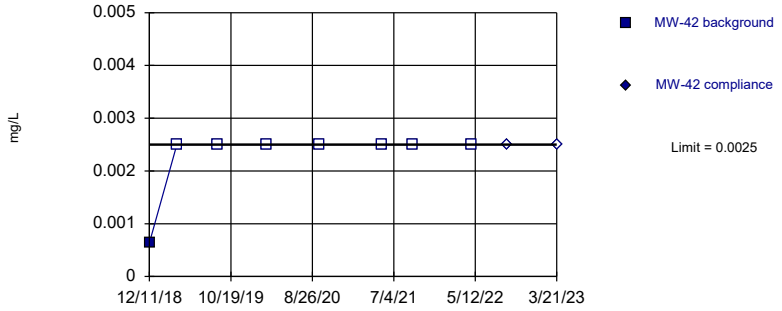
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Vanadium Analysis Run 5/8/2023 11:03 AM View: 2023SSN - MW-42 IntraPL
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Mann-Kendall/Sen's Slope Summary Table and Graphs
Water Table Aquifer

Trend Test

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19 Printed 5/5/2023, 4:29 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Barium (mg/L)	MW-19	0.009316	14	21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-19	-0.0000176	-6	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-19	0.00006065	9	21	No	8	25	0.01	NP
Lead (mg/L)	MW-19	0	4	21	No	8	62.5	0.01	NP
Nickel (mg/L)	MW-19	-0.001042	-8	-21	No	8	0	0.01	NP
Silver (mg/L)	MW-19	0	5	21	No	8	87.5	0.01	NP

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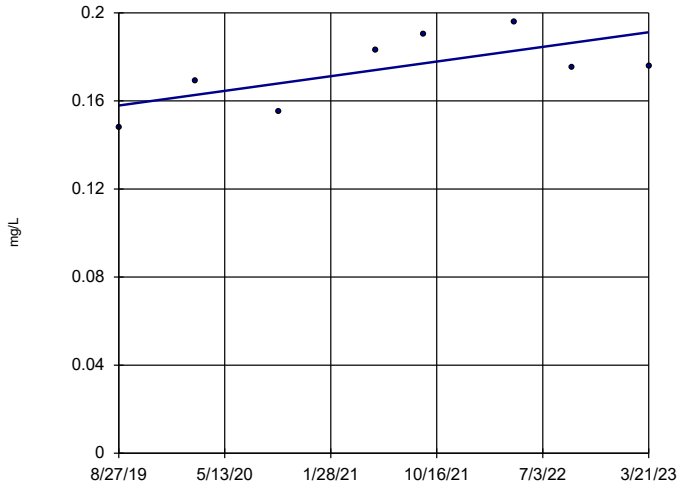
Sen's Slope Estimator

MW-19



n = 8

Slope = 0.009316 units per year.

Mann-Kendall statistic = 14 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

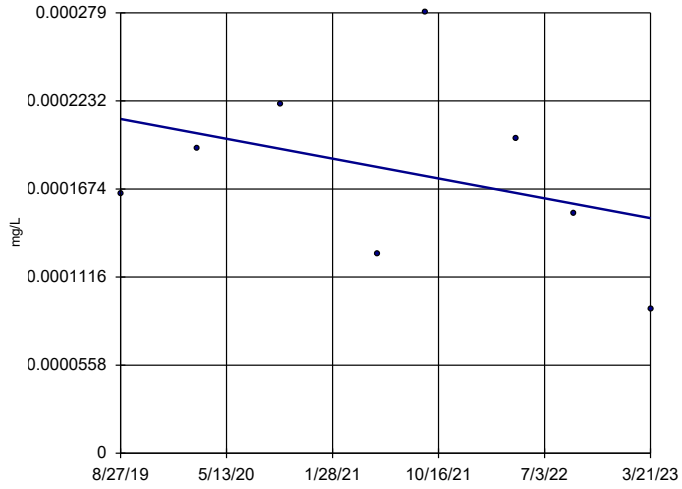
Constituent: Barium Analysis Run 5/5/2023 4:27 PM View: 2023SSN - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-19



n = 8

Slope = -0.0000176 units per year.

Mann-Kendall statistic = -6 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 5/5/2023 4:27 PM View: 2023SSN - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

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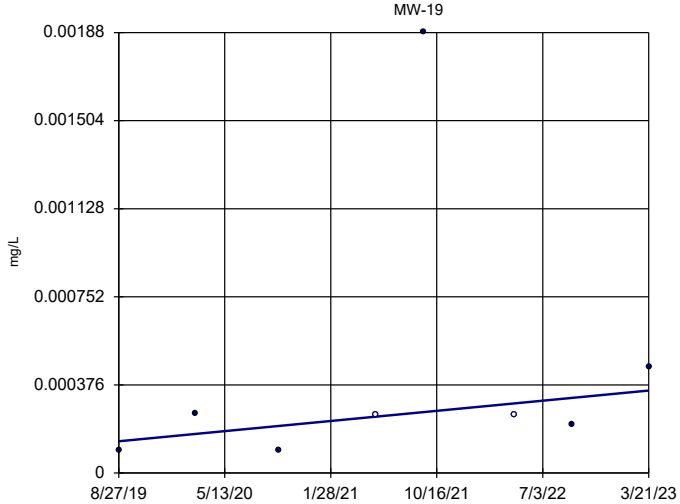
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.00006065 units per year.

Mann-Kendall statistic = 9 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 5/5/2023 4:27 PM View: 2023SSN - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

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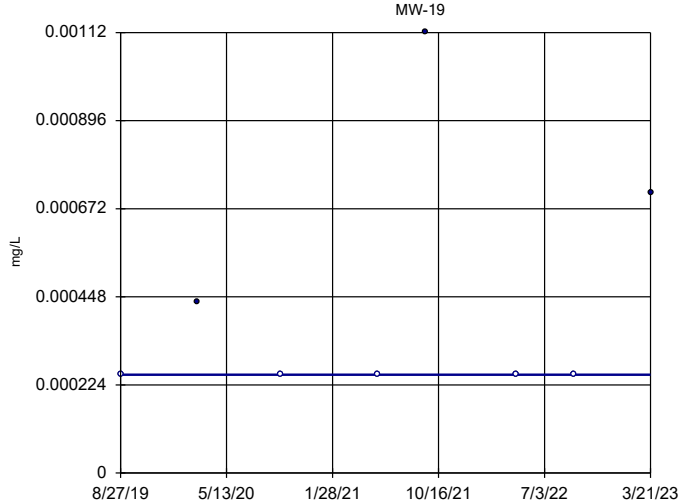
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 4 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 5/5/2023 4:27 PM View: 2023SSN - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

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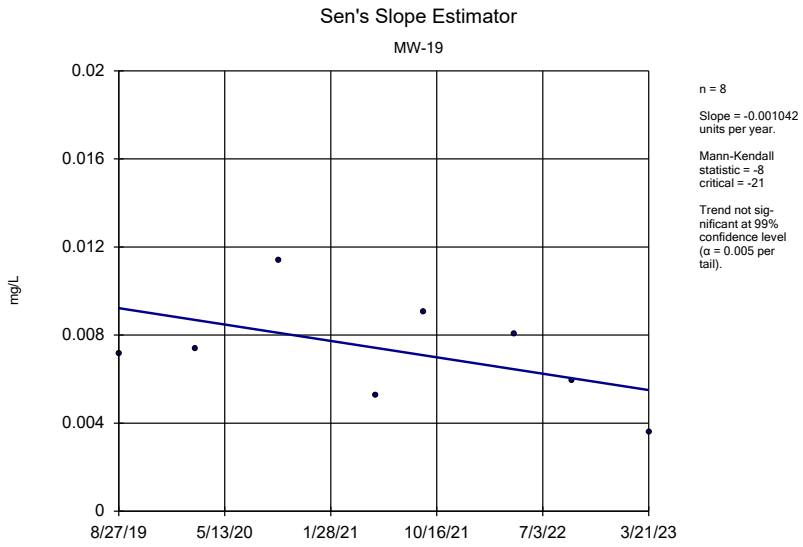
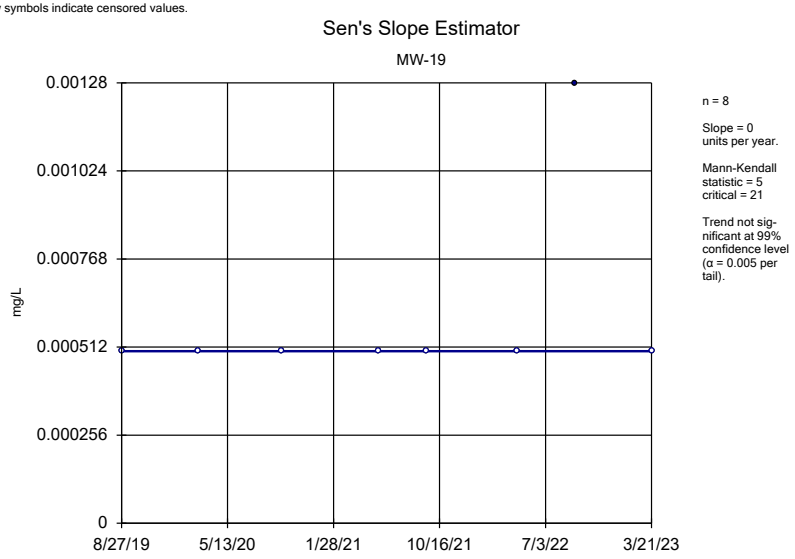


Constituent: Nickel Analysis Run 5/5/2023 4:27 PM View: 2023SSN - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.



Constituent: Silver Analysis Run 5/5/2023 4:27 PM View: 2023SSN - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

Confidence Interval Summary Table and Graphs
Water Table Aquifer

Confidence Interval

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19 Printed 5/5/2023, 4:41 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Barium (mg/L)	MW-19	0.1914	0.1566	2	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-19	0.00024	0.0001162	0.005	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-19	0.00188	0.000098	0.0021	No	8	25	No	0.004	NP (normality)
Lead (mg/L)	MW-19	0.00112	0.00025	0.015	No	8	62.5	No	0.004	NP (NDs)
Nickel (mg/L)	MW-19	0.00977	0.004693	0.1	No	8	0	No	0.01	Param.
Silver (mg/L)	MW-19	0.00128	0.0005	0.1	No	8	87.5	No	0.004	NP (NDs)

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

Constituent: Barium Analysis Run 5/5/2023 4:39 PM View: 2023SSN - Confidence Interval

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

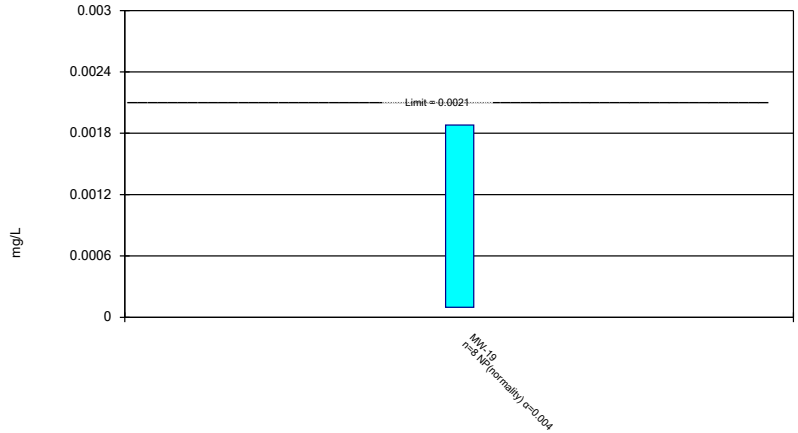
Constituent: Cadmium Analysis Run 5/5/2023 4:39 PM View: 2023SSN - Confidence Interval

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 5/5/2023 4:39 PM View: 2023SSN - Confidence Interval

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

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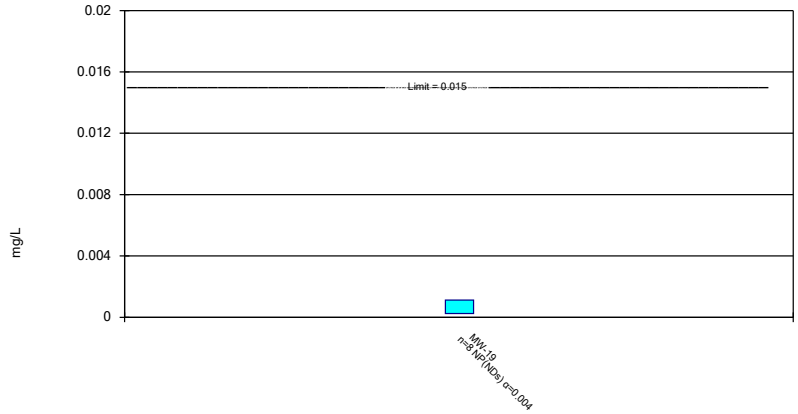
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 5/5/2023 4:39 PM View: 2023SSN - Confidence Interval

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

Constituent: Nickel Analysis Run 5/5/2023 4:39 PM View: 2023SSN - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

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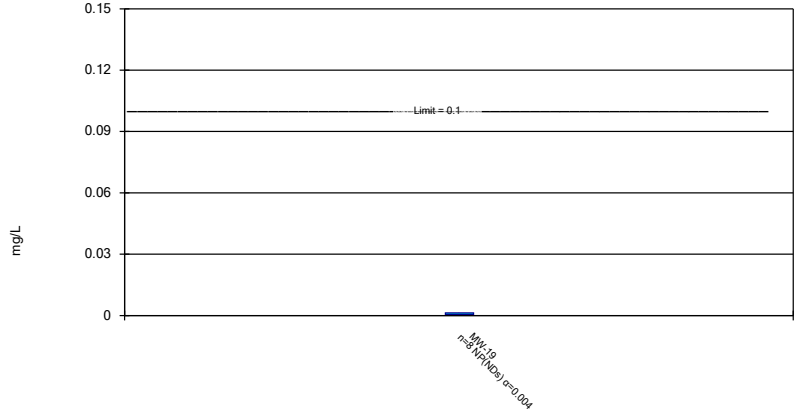
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Silver Analysis Run 5/5/2023 4:39 PM View: 2023SSN - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023SSN AM MW-19

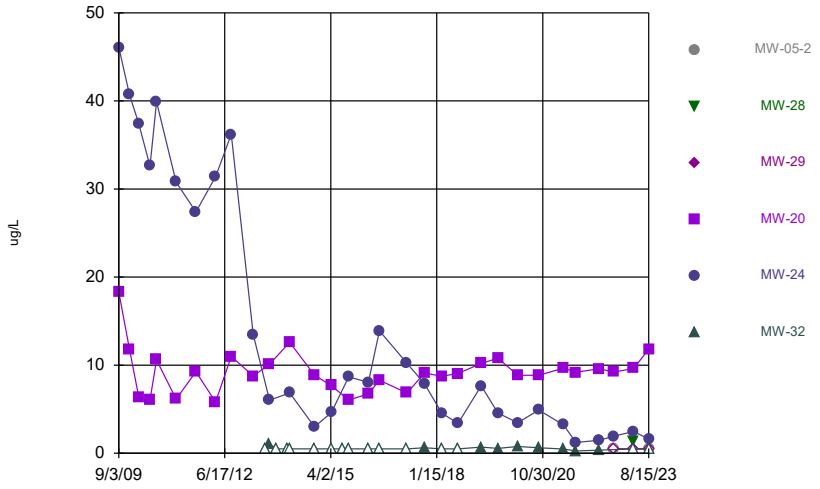
Attachment B

2nd 2023 Statistical Evaluation Output

Time Series Plots
Water Table Aquifer

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

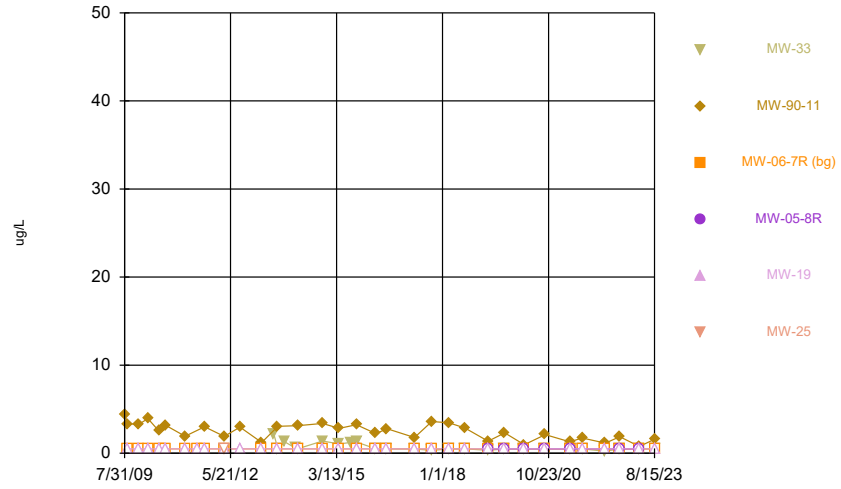
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Mai
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

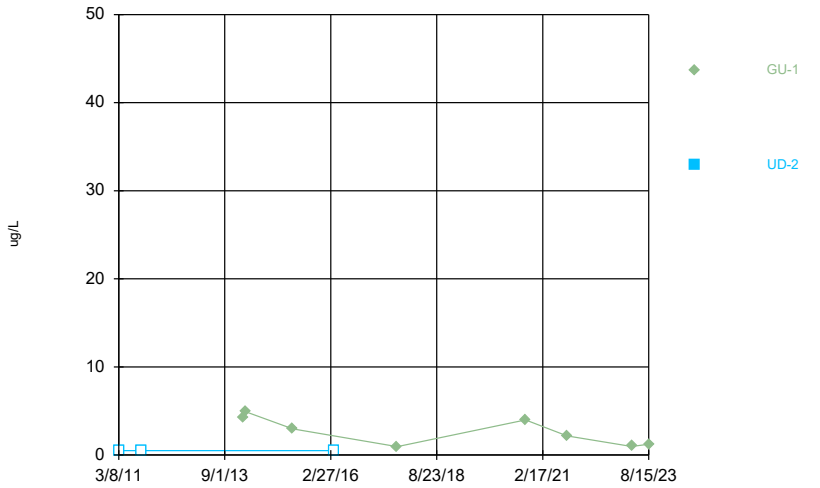
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Mai
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

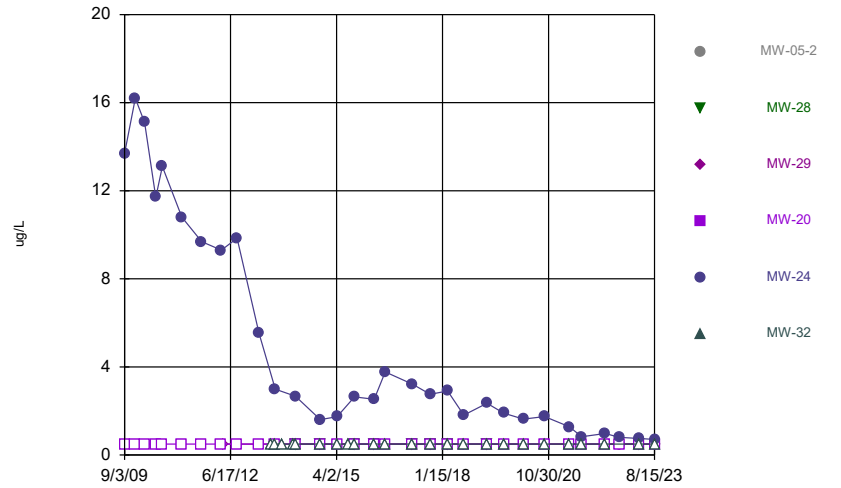
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Mai
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

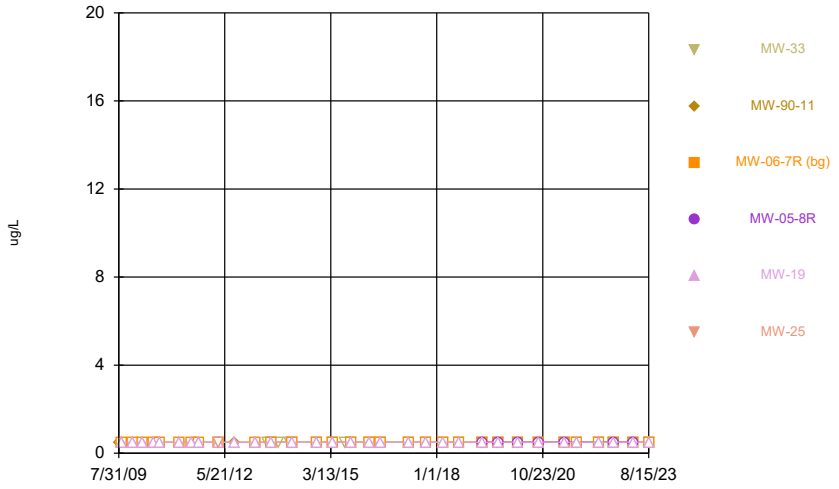
Time Series



Constituent: 1,2-Dichloropropane Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Ma
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

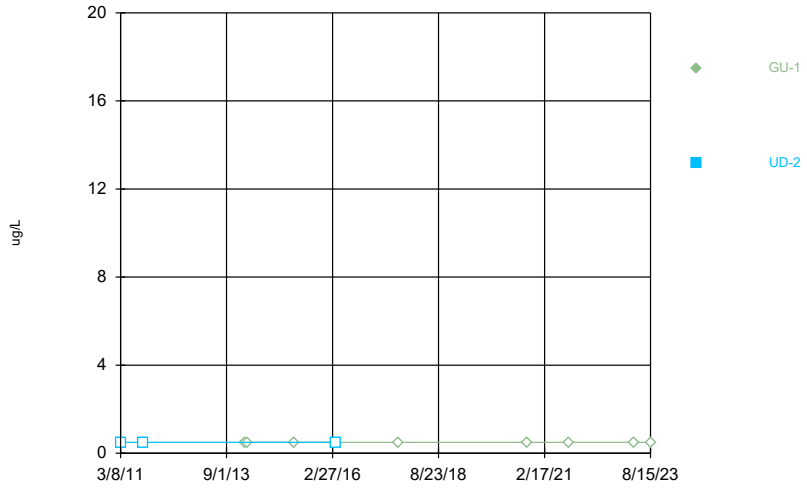
Time Series



Constituent: 1,2-Dichloropropane Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Ma
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

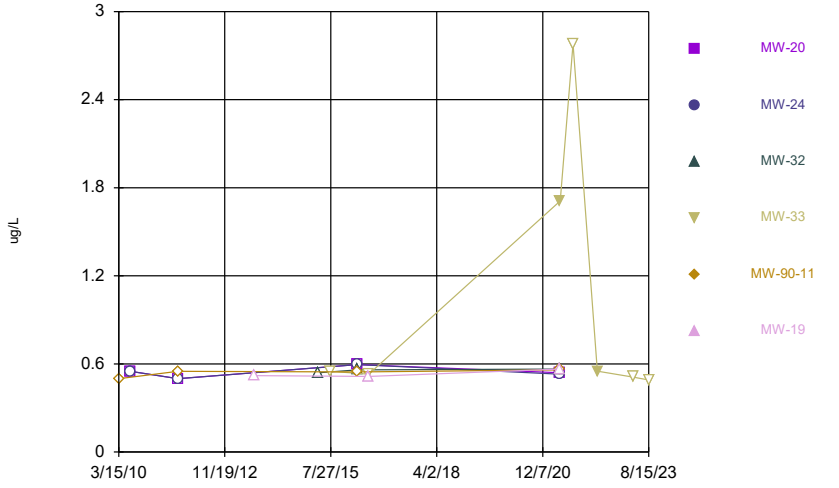
Time Series



Constituent: 1,2-Dichloropropane Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Ma
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

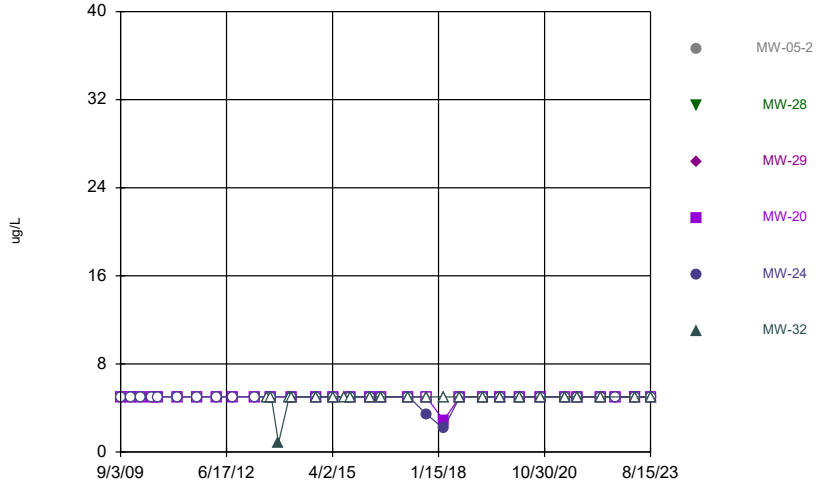
Time Series



Constituent: 2,4-D [2C] Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Main Source
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

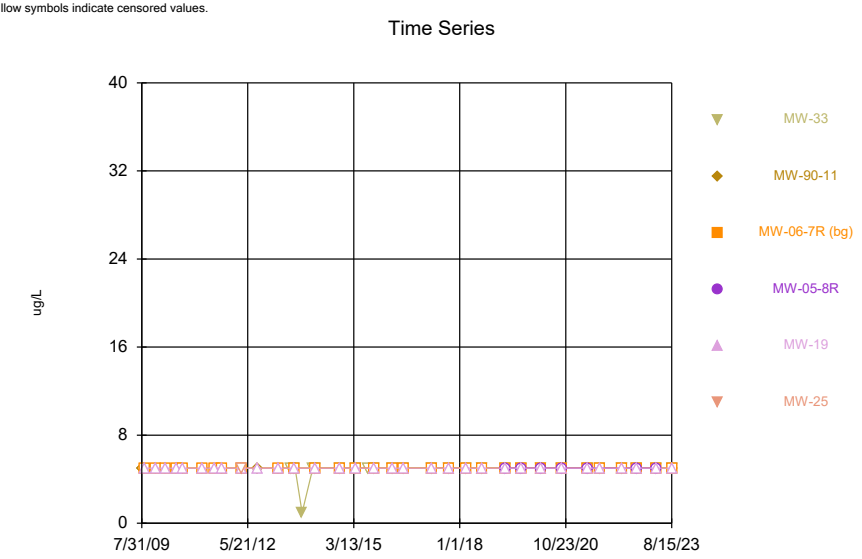
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



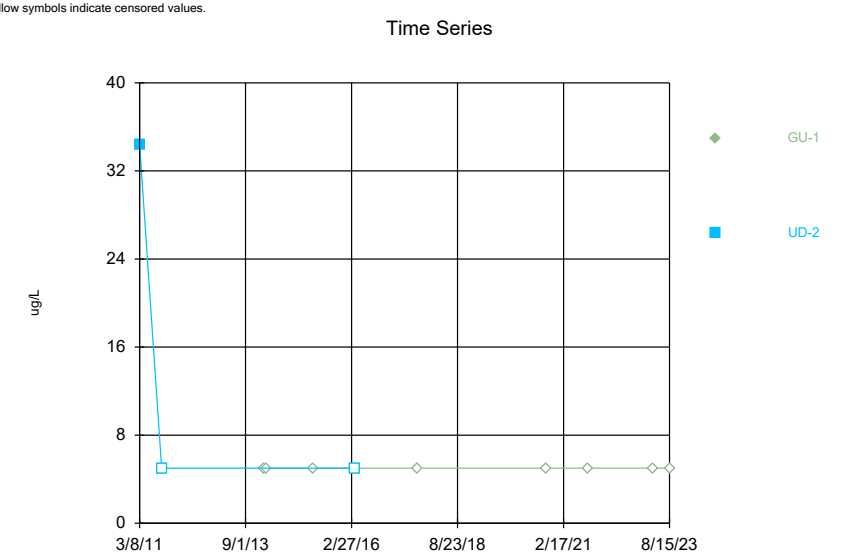
Constituent: 2-Butanone Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Main Sourc
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



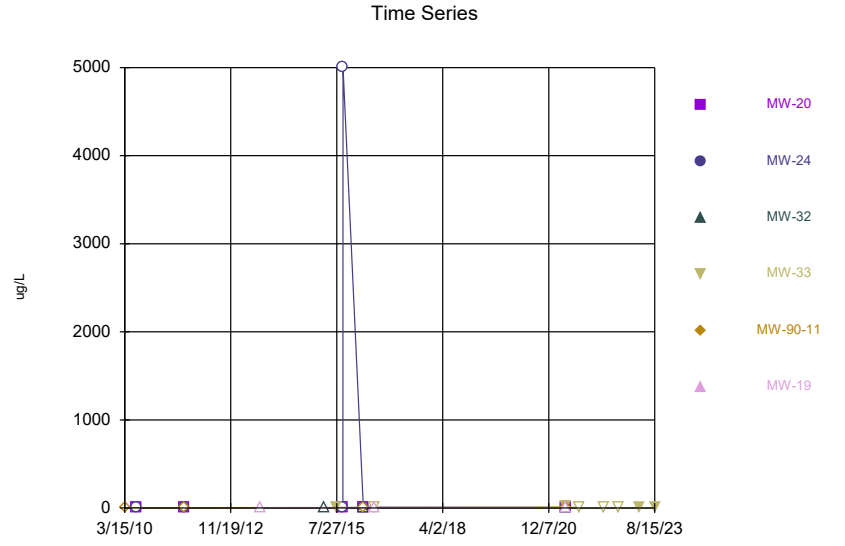
Constituent: 2-Butanone Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Main Sourc
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



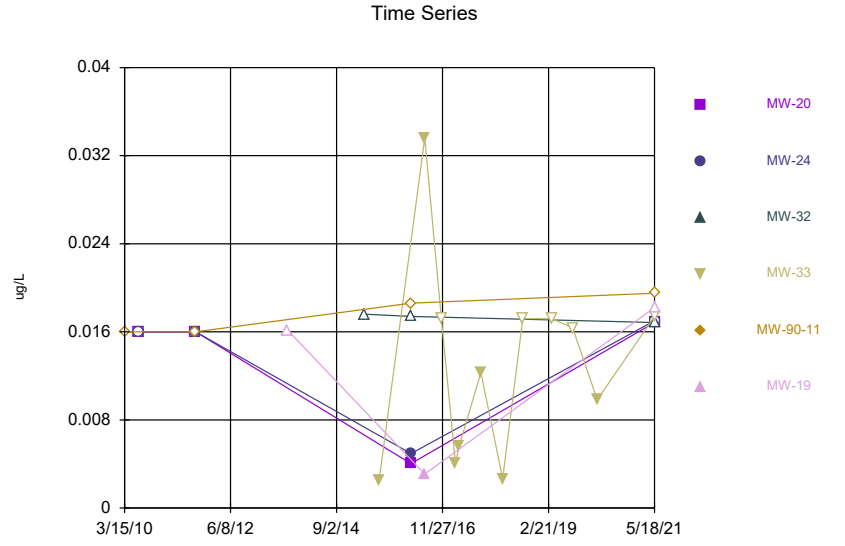
Constituent: 2-Butanone Analysis Run 10/2/2023 12:12 PM View: 2023AWQR - Time Series - Main Sourc
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



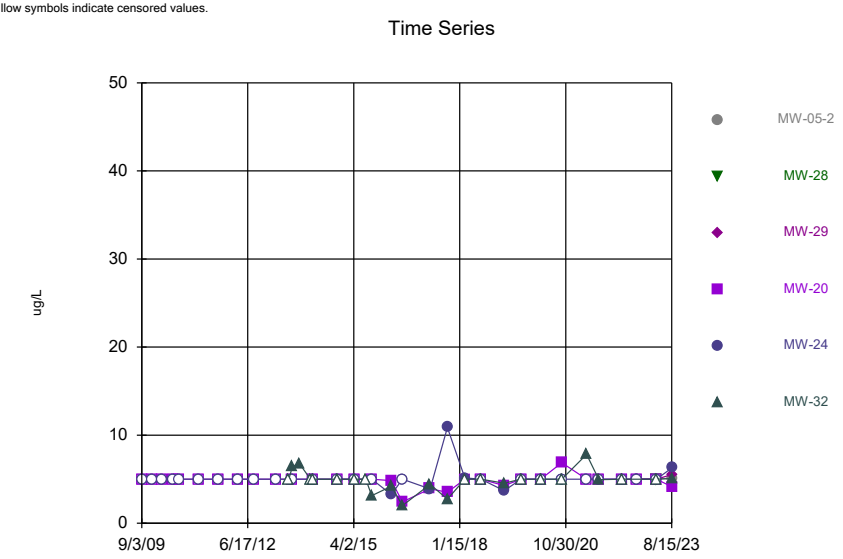
Constituent: 3/4-Methylphenol Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



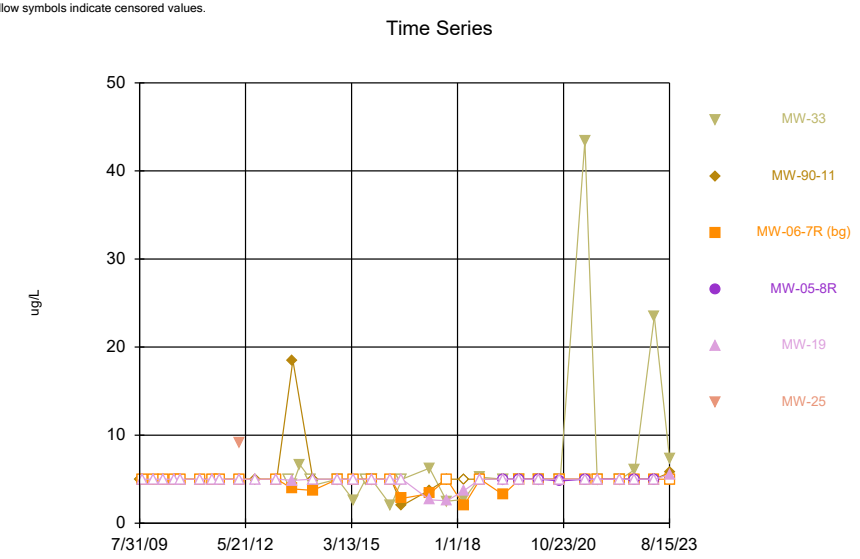
Constituent: 4,4`-DDD Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Acetone Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Acetone Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
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Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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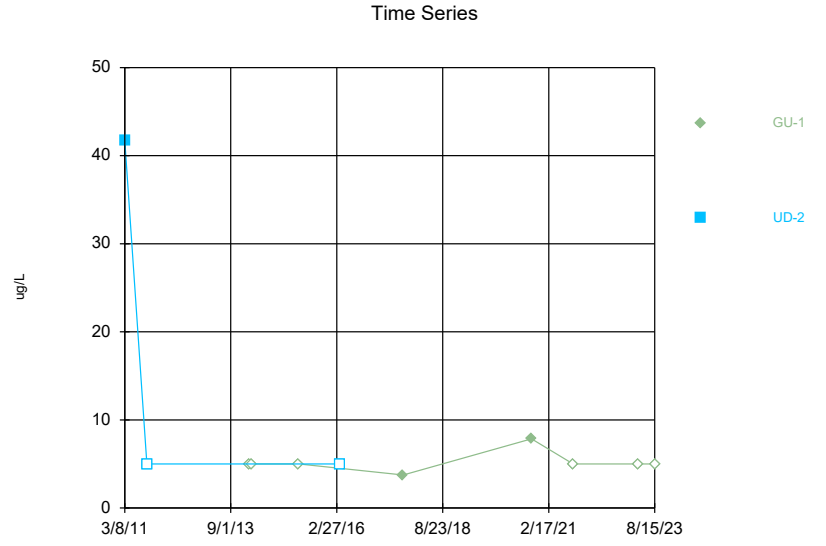

Constituent: Acetone Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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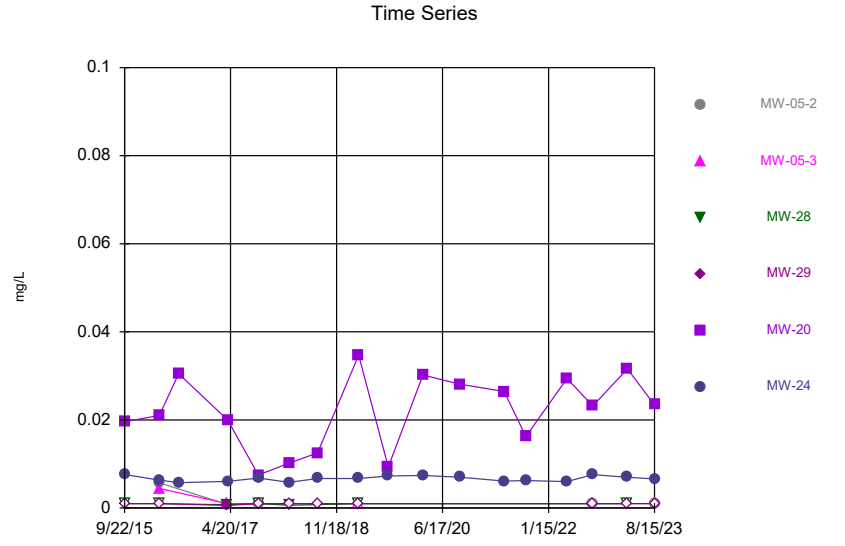

Constituent: Arsenic Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
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Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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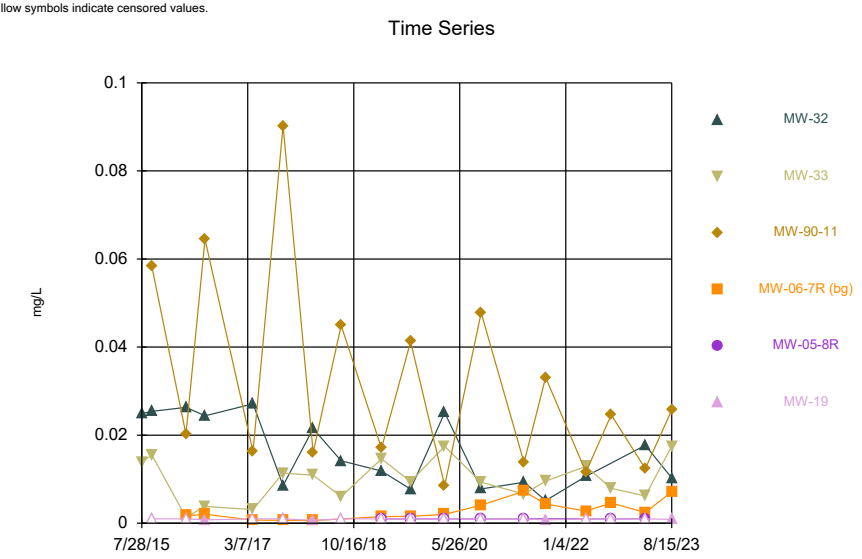
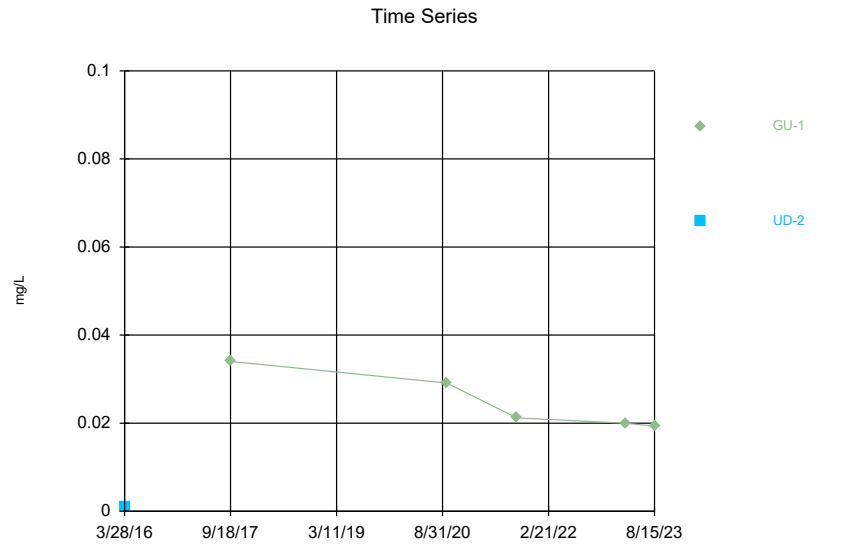


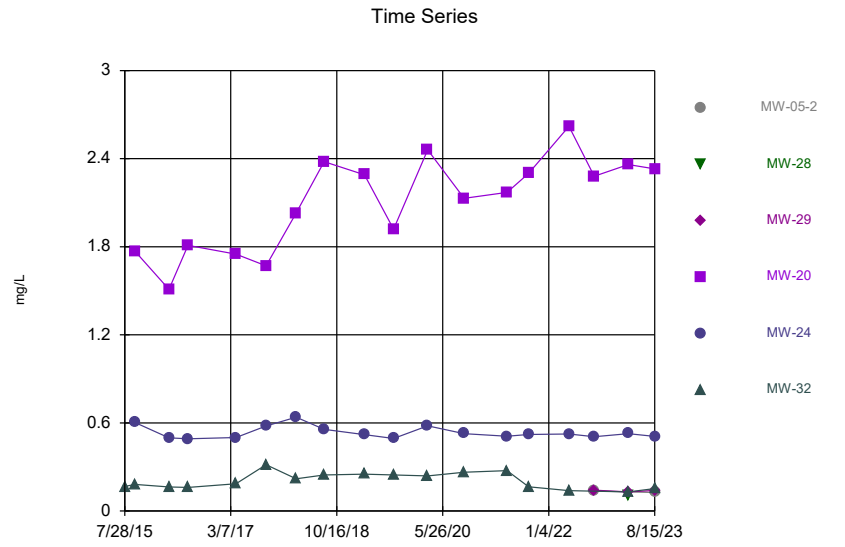
Constituent: Arsenic Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



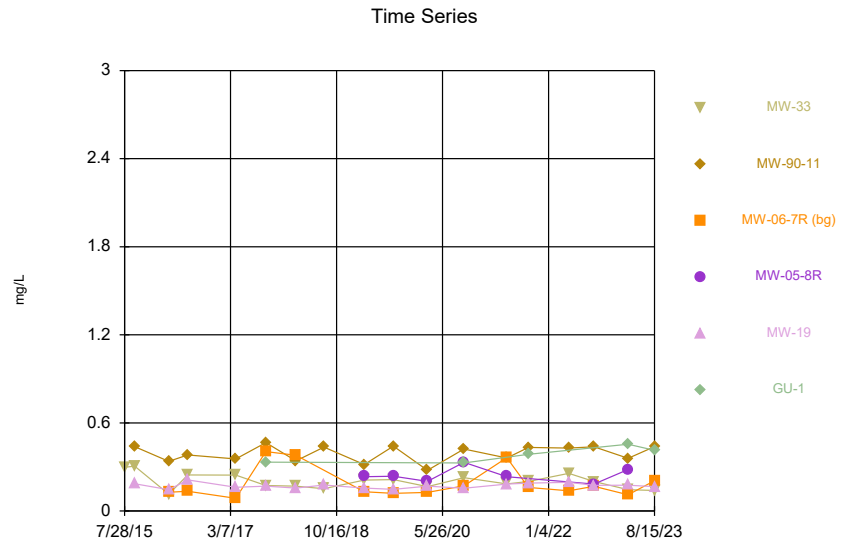
Constituent: Arsenic Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Barium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Barium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

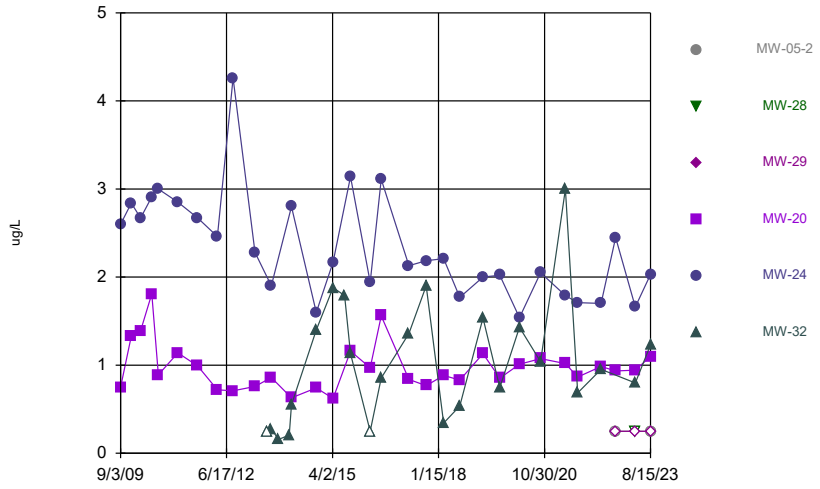
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series

Constituent: Barium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

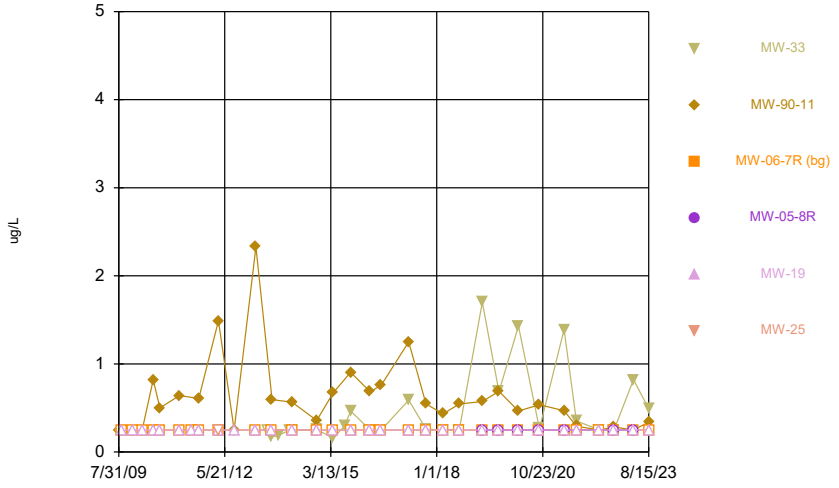
Time Series



Constituent: Benzene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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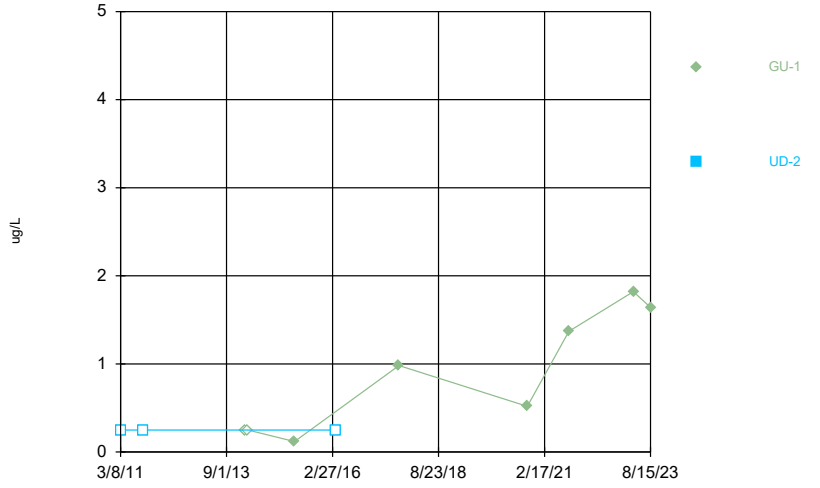
Time Series



Constituent: Benzene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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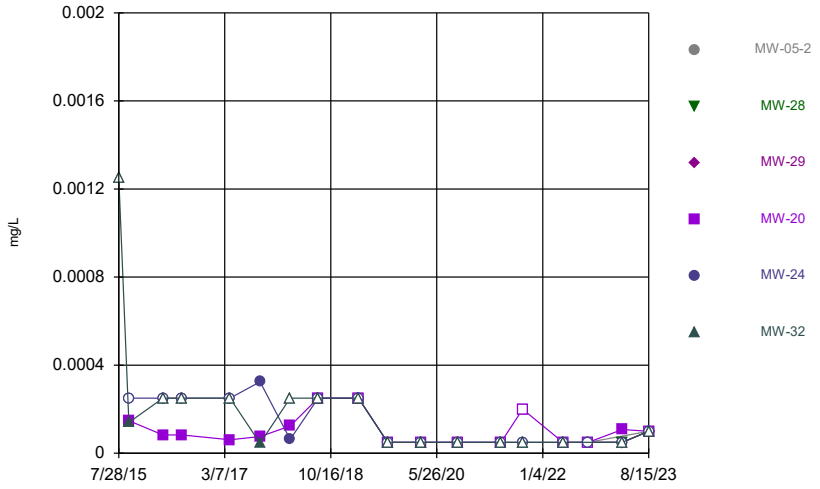
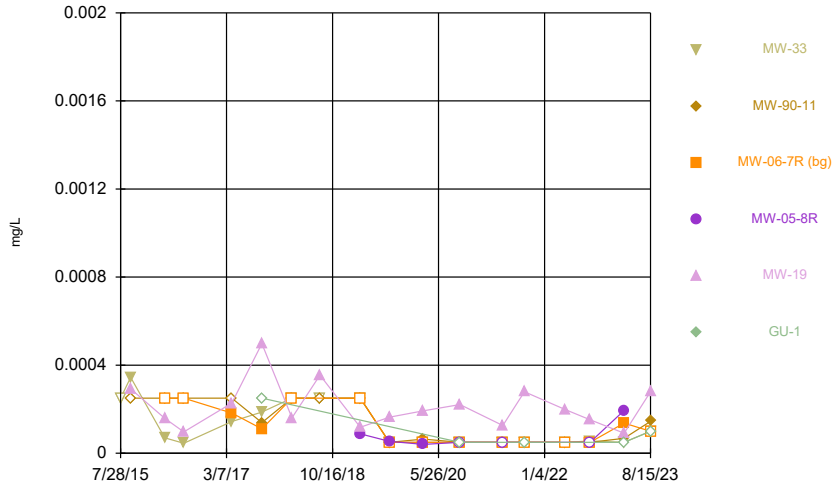
Time Series



Constituent: Cadmium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

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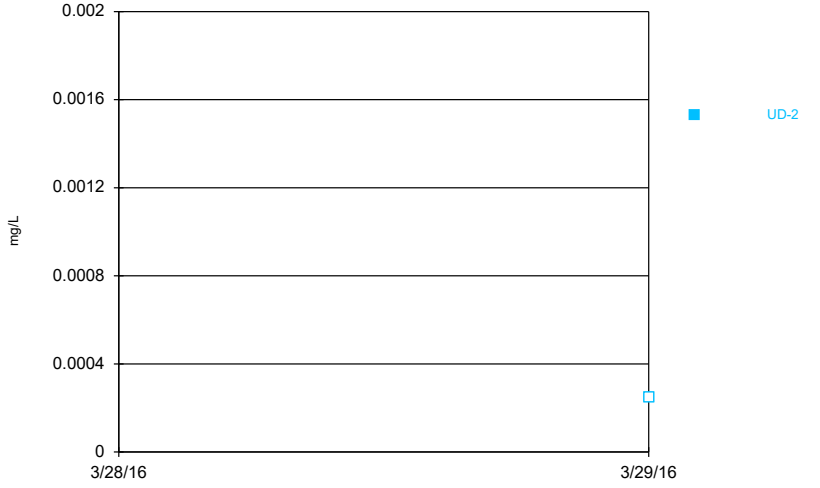

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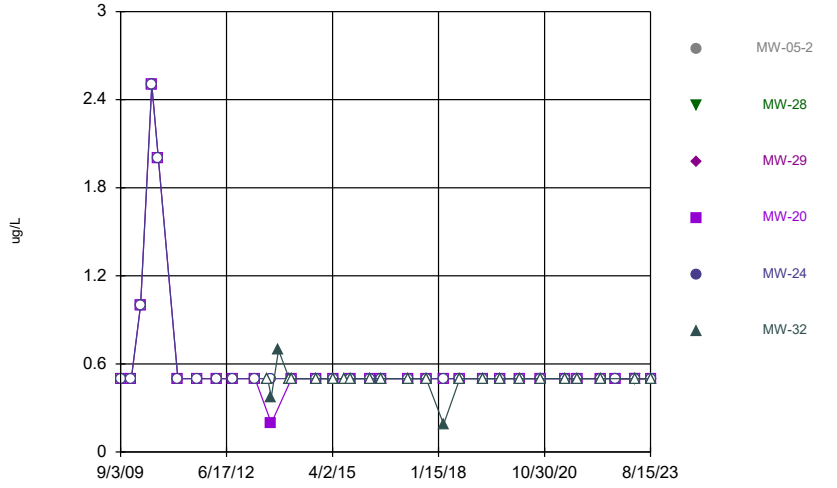
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

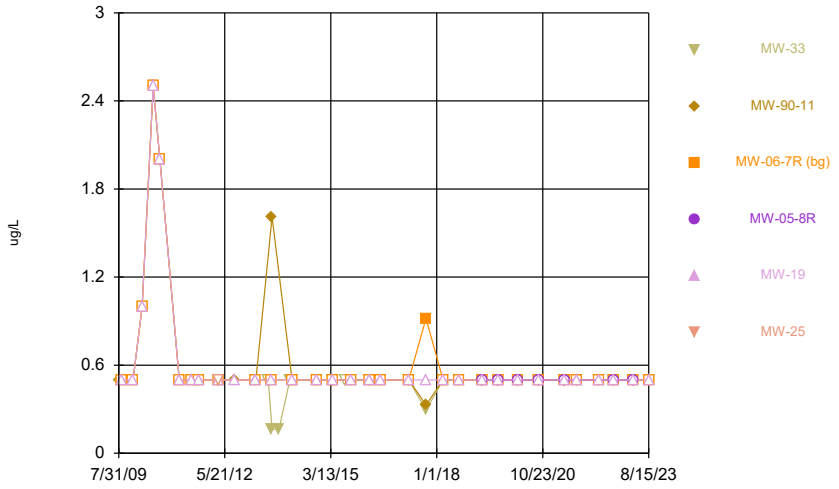
Time Series



Constituent: Carbon disulfide Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main S
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

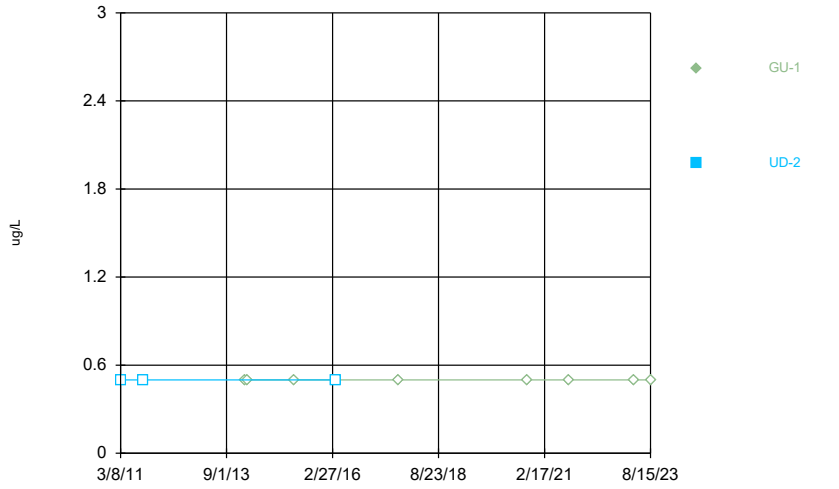
Time Series



Constituent: Carbon disulfide Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main S
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

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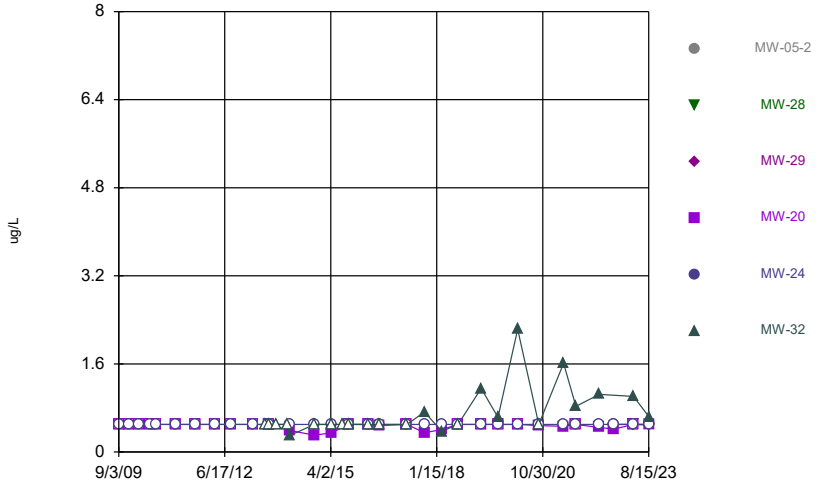
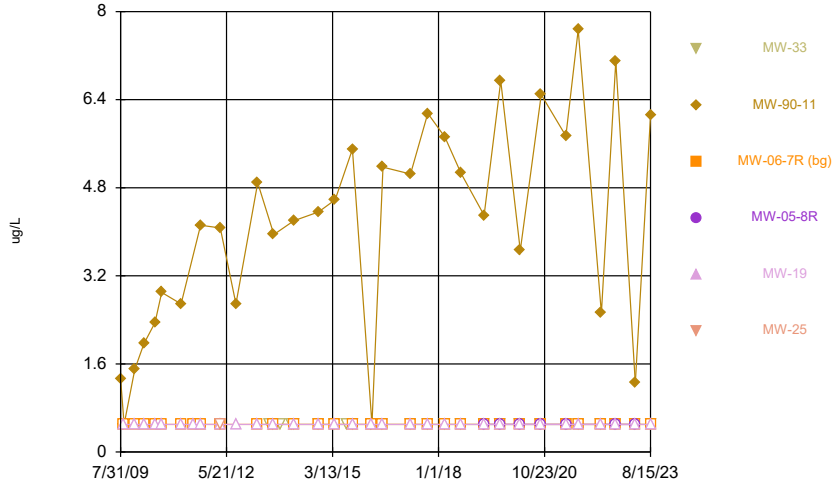


Constituent: Chlorobenzene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main So
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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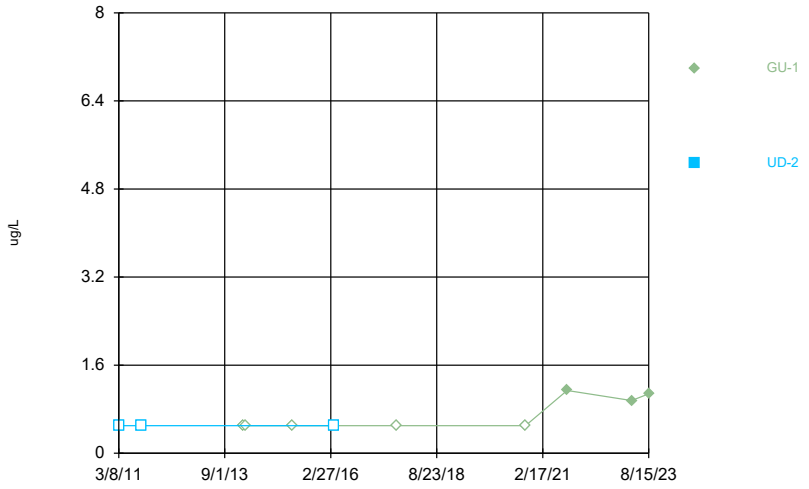
Time Series



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Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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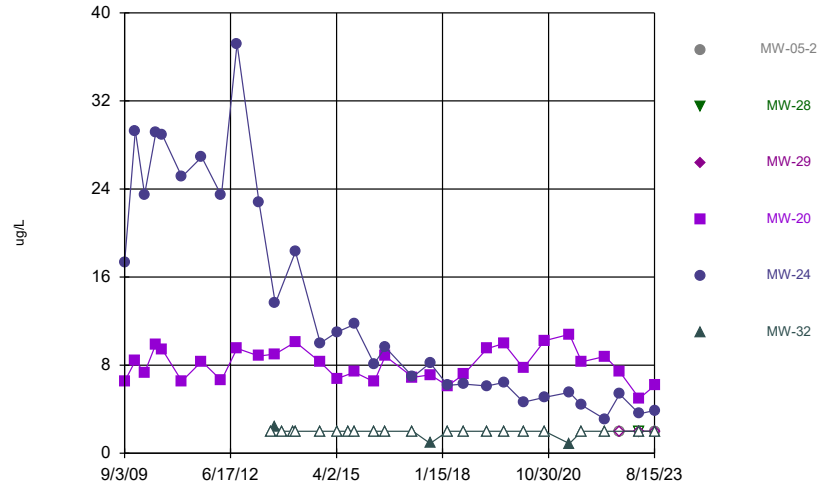
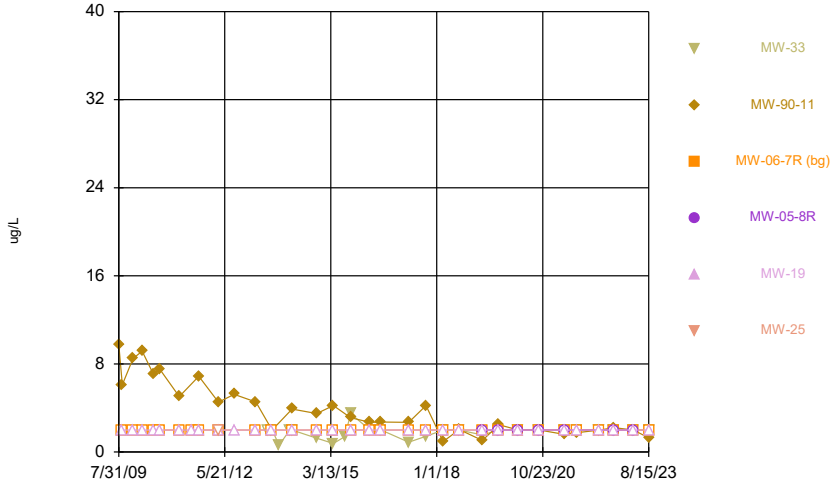
Time Series



Constituent: Chloroethane Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Sour
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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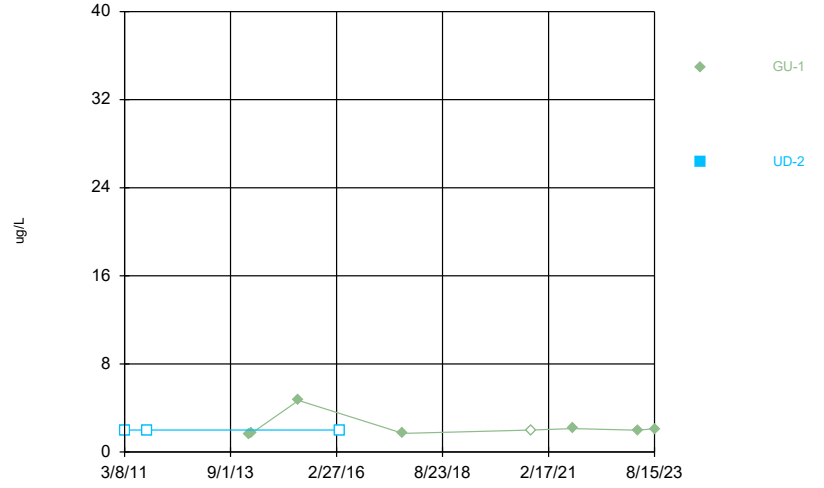

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Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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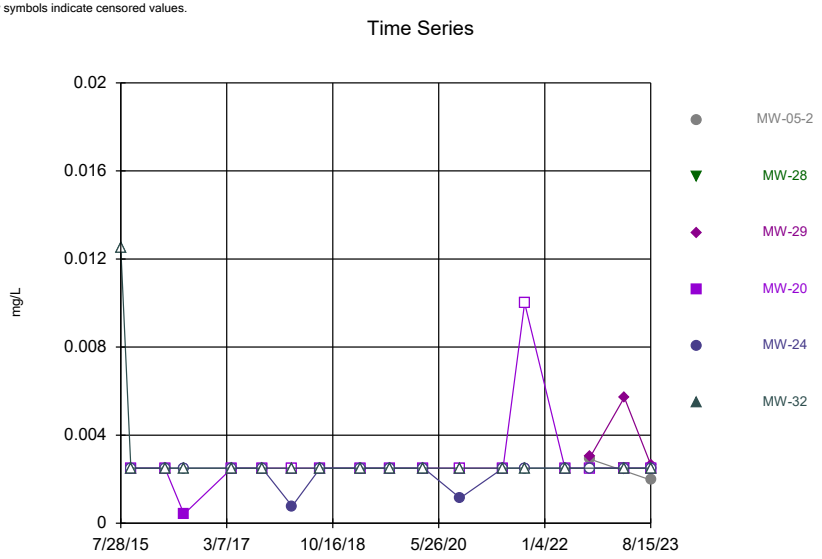

Constituent: Chromium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source
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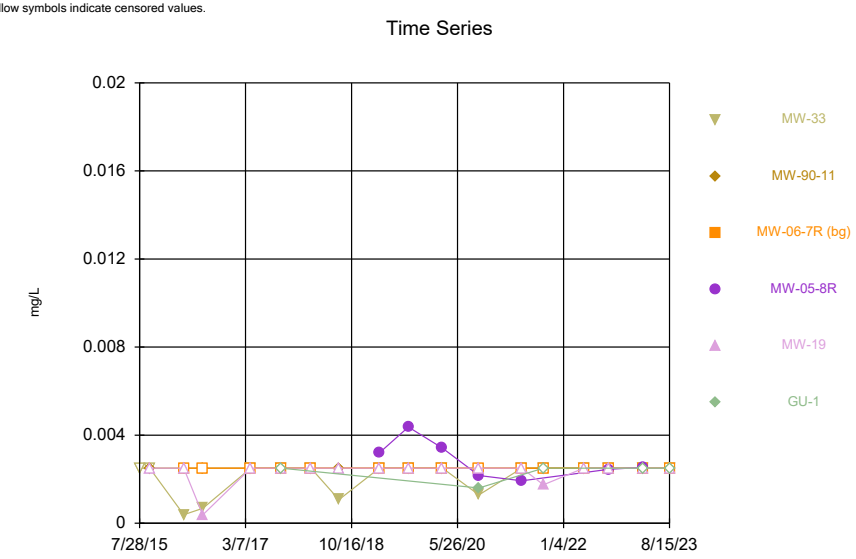
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



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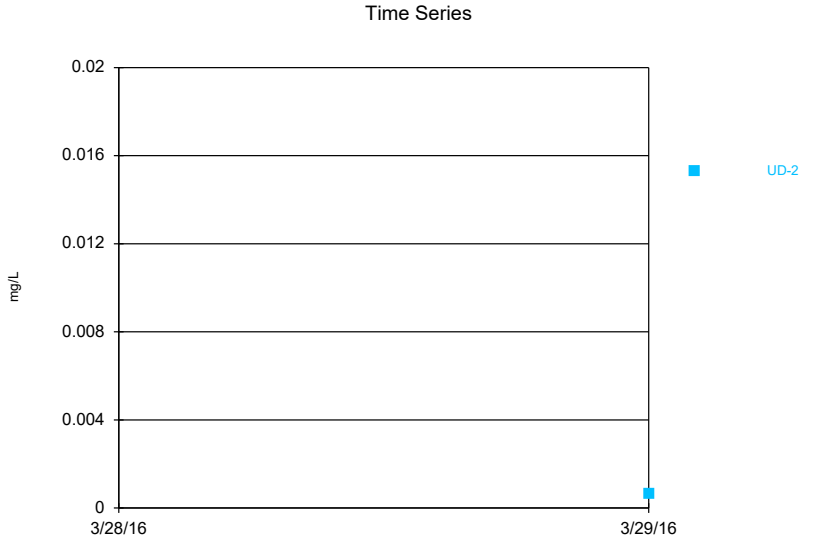
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



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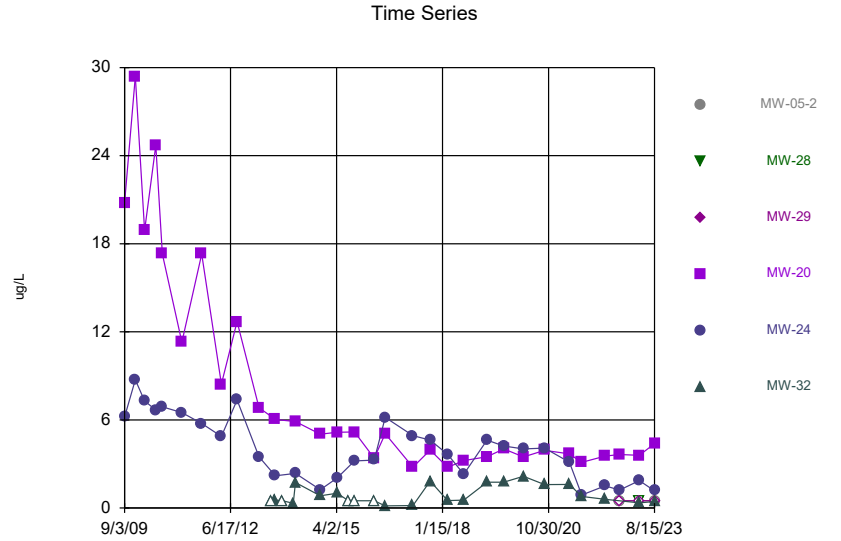
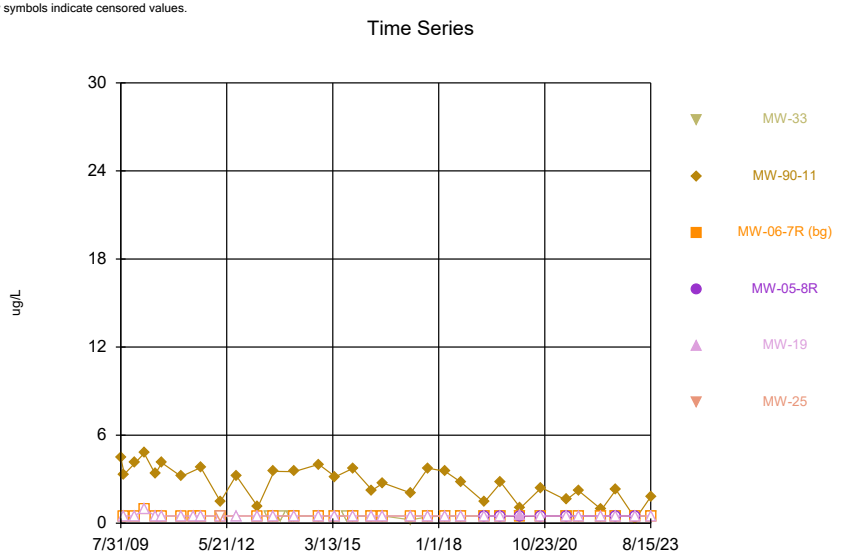


Constituent: cis-1,2-Dichloroethene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series -
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



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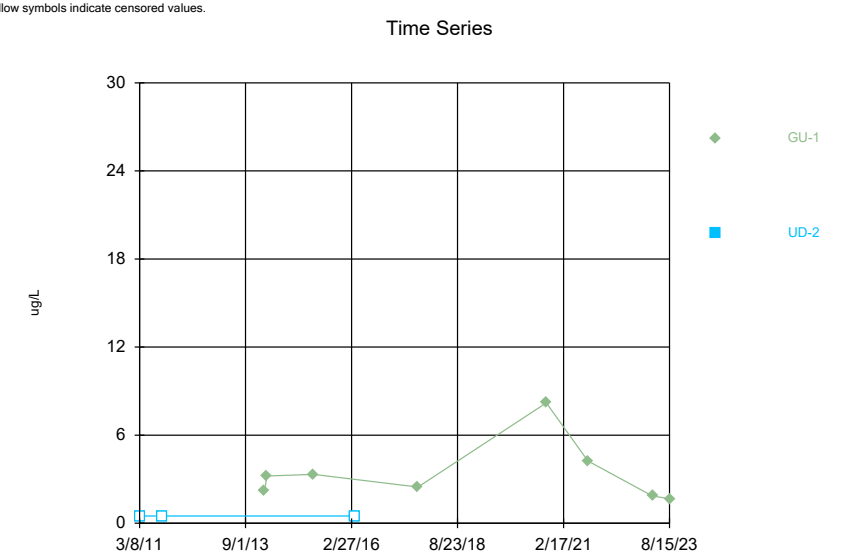
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: cis-1,2-Dichloroethene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series -
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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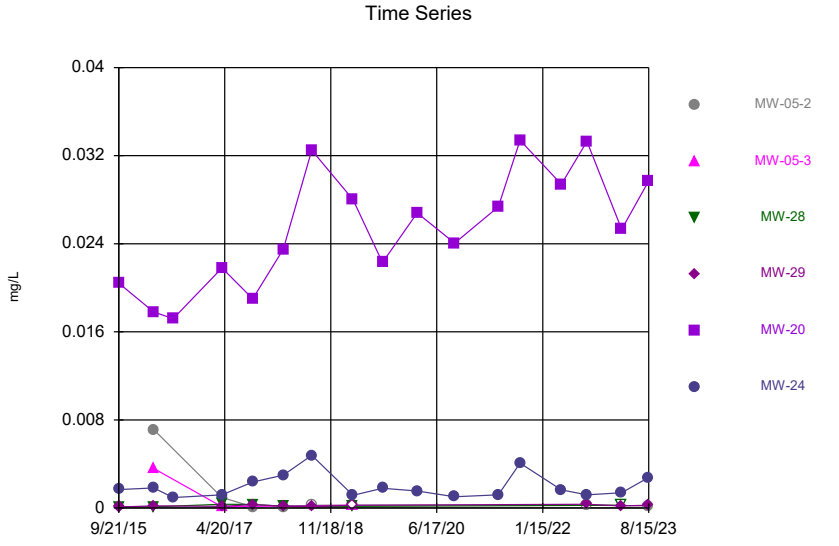
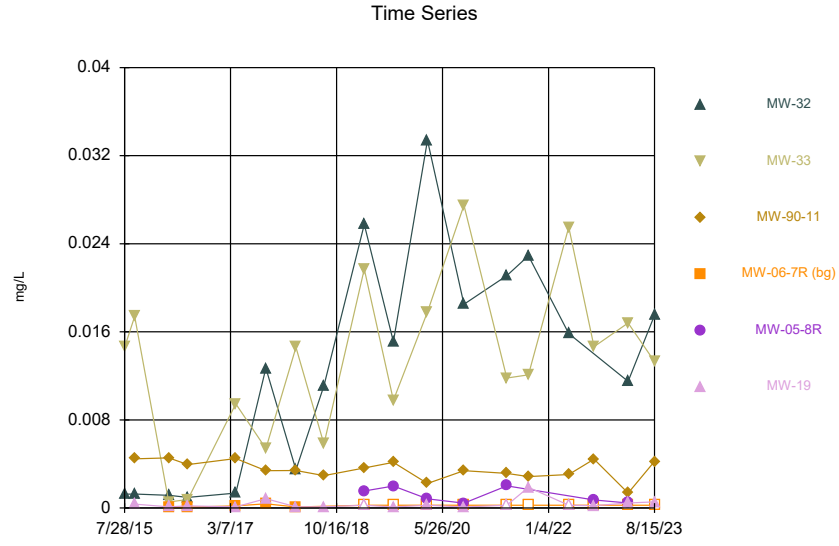


Constituent: Cobalt Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

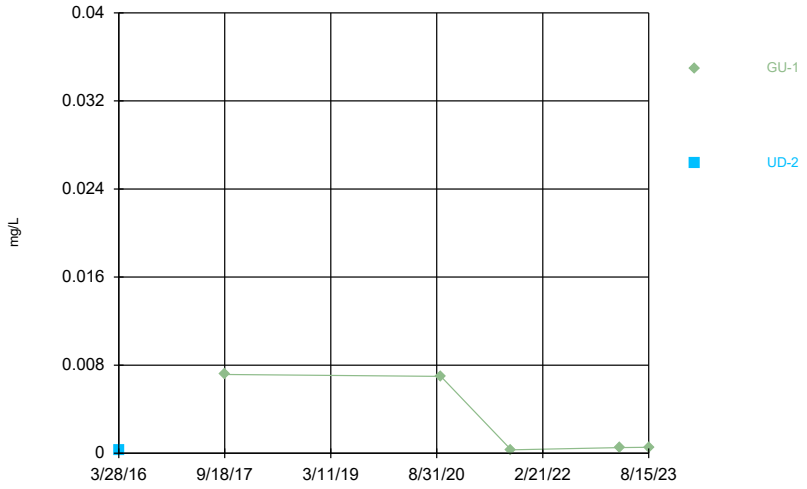
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Cobalt Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series



Constituent: Cobalt Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
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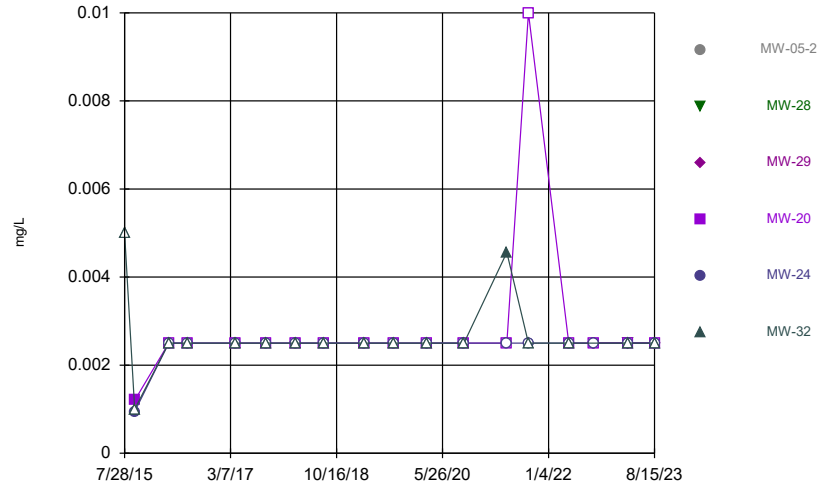
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Copper Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
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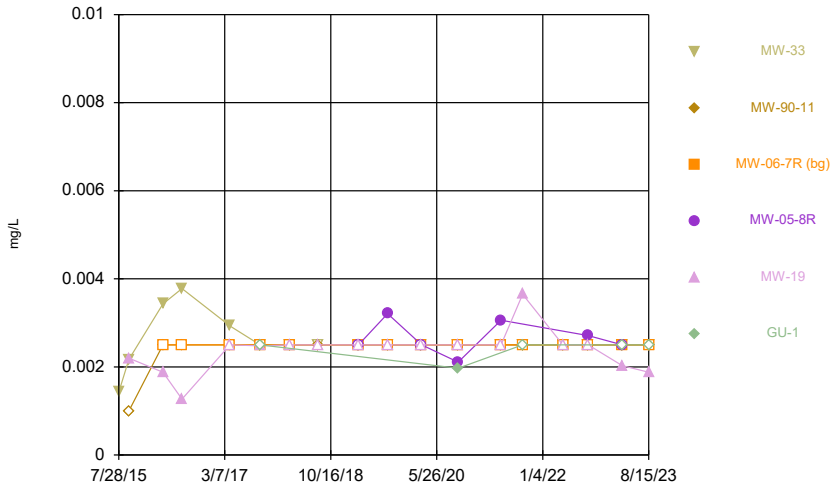
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

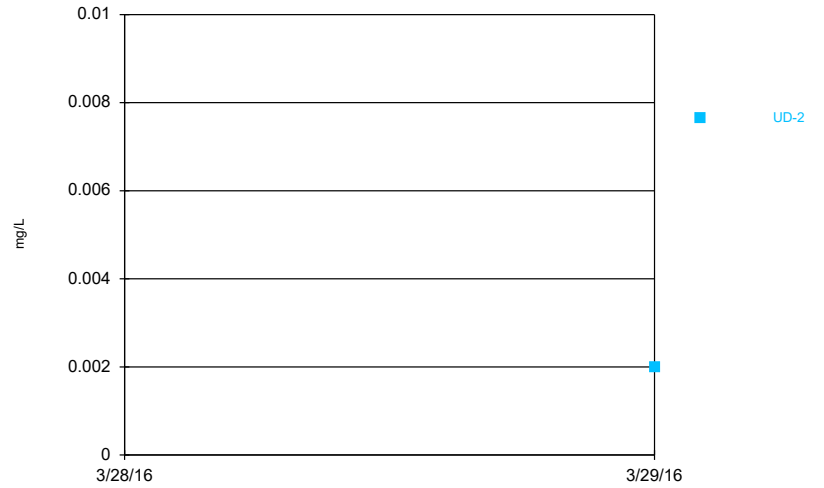
Time Series



Constituent: Copper Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

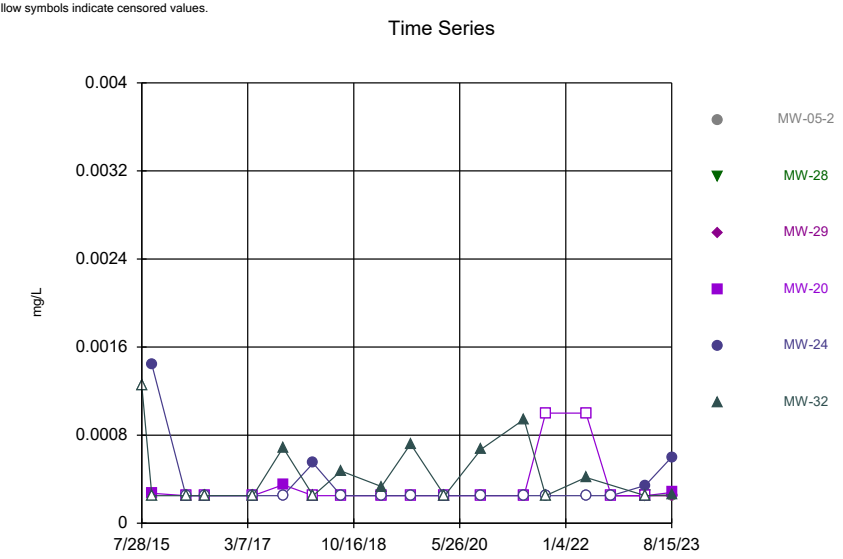
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series



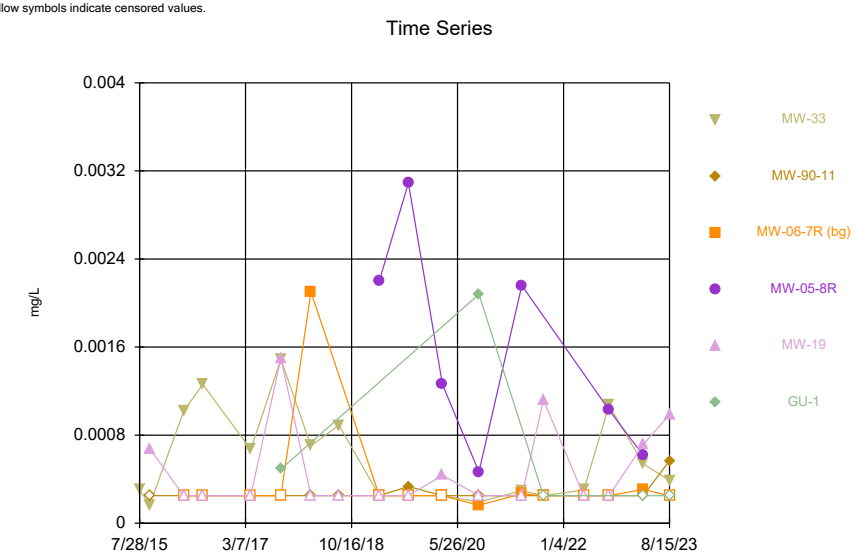
Constituent: Copper Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



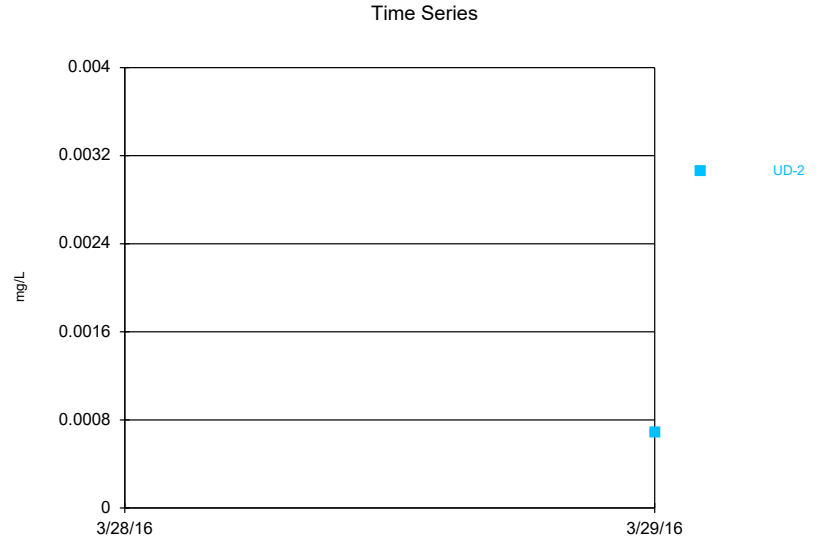
Constituent: Lead Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Lead Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Lead Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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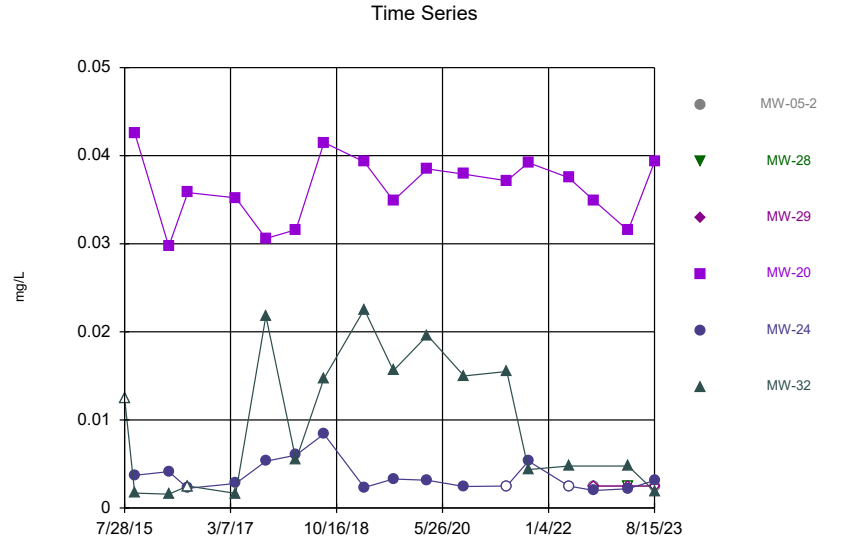
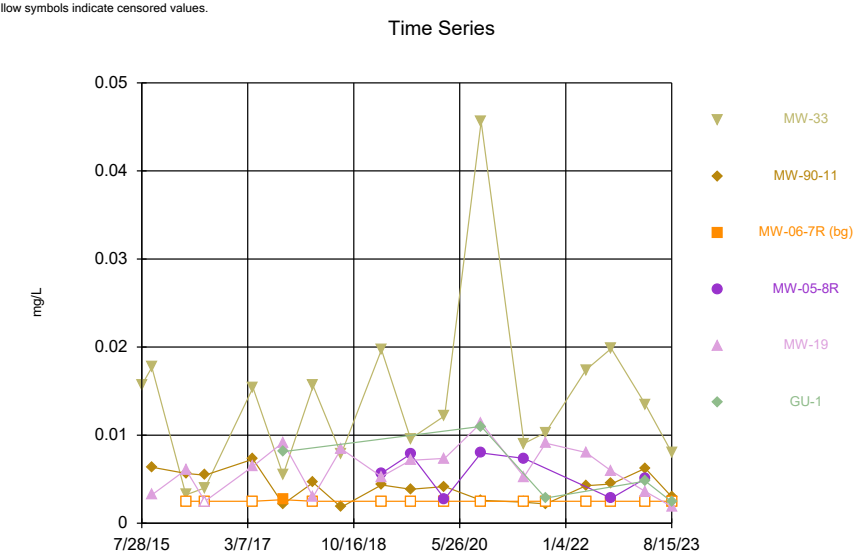


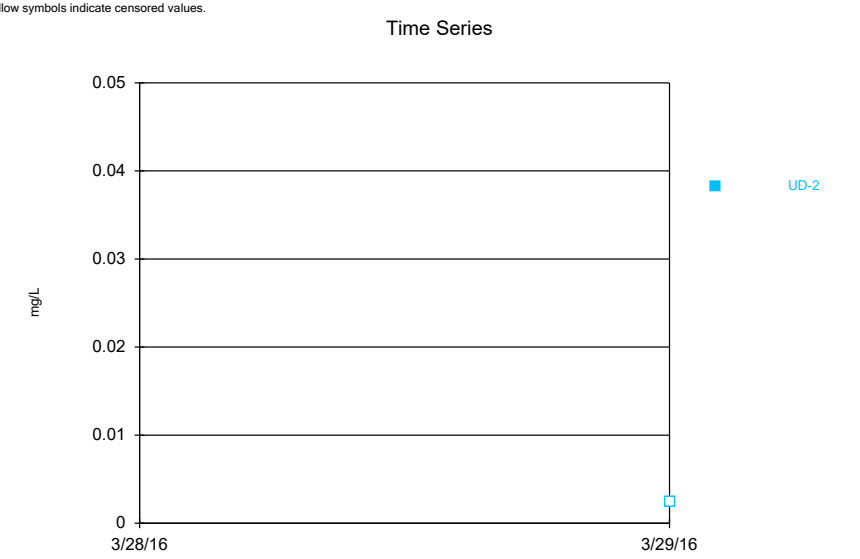
Constituent: Nickel Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Nickel Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Nickel Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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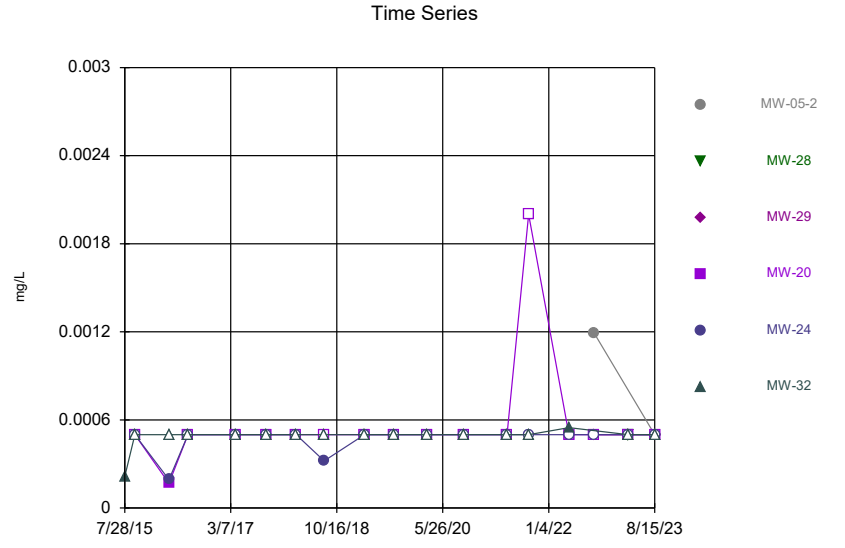

Constituent: Silver Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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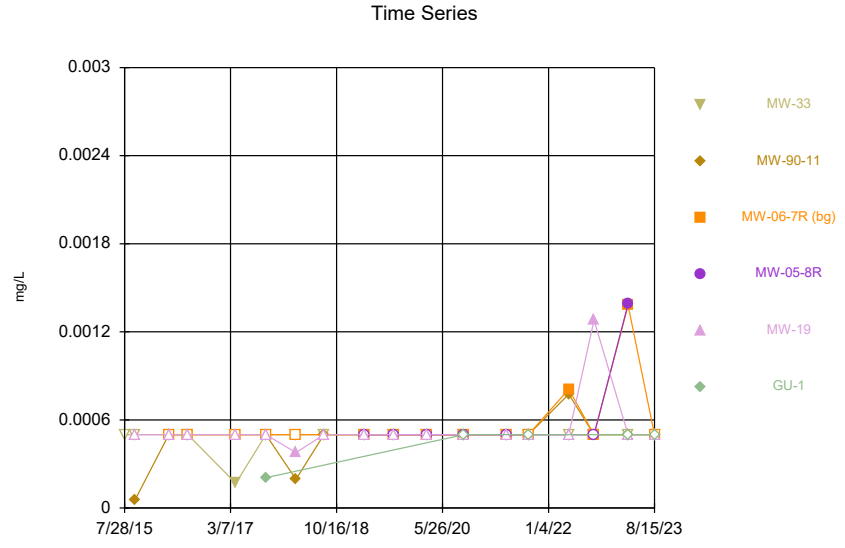
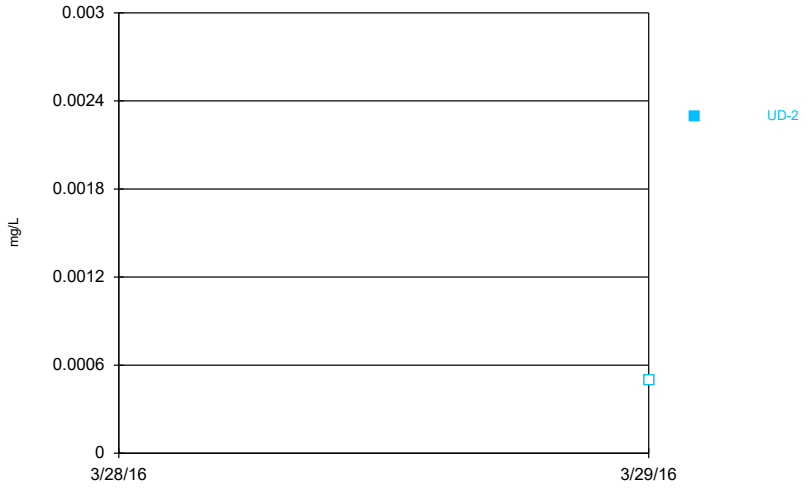


Constituent: Silver Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

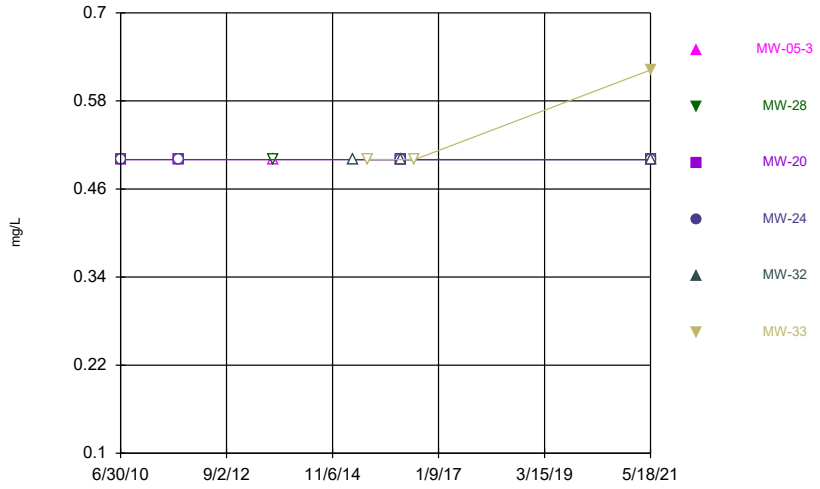
Time Series



Constituent: Silver Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZP
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

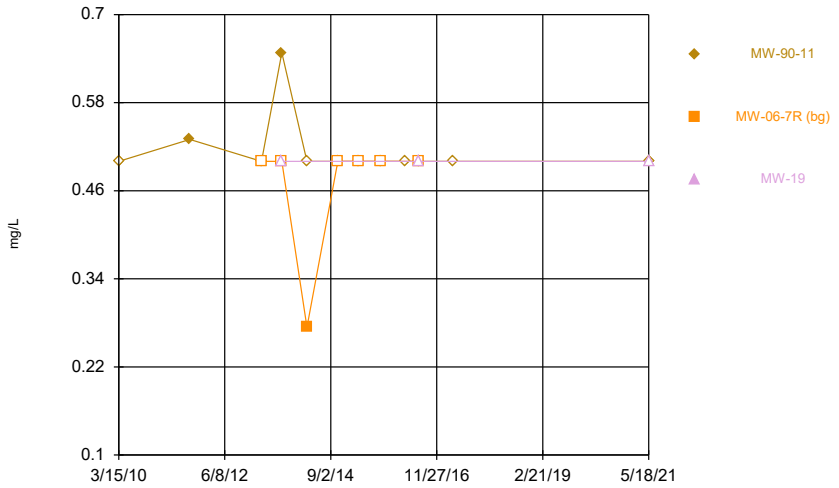
Time Series



Constituent: Sulfide Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

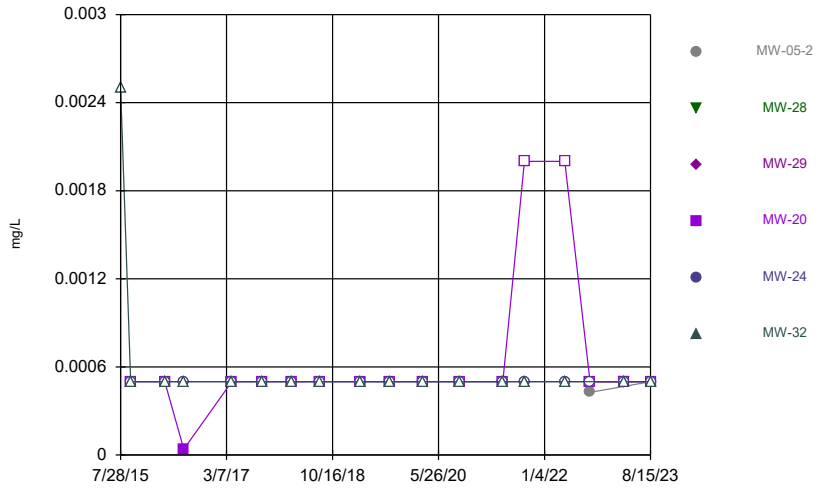
Time Series



Constituent: Sulfide Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZ
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

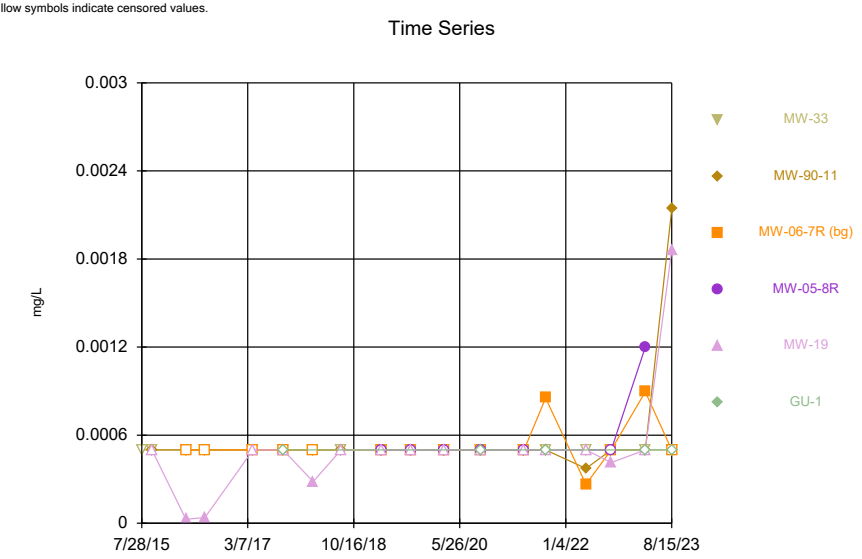
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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Hollow symbols indicate censored values.

Constituent: Thallium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source A
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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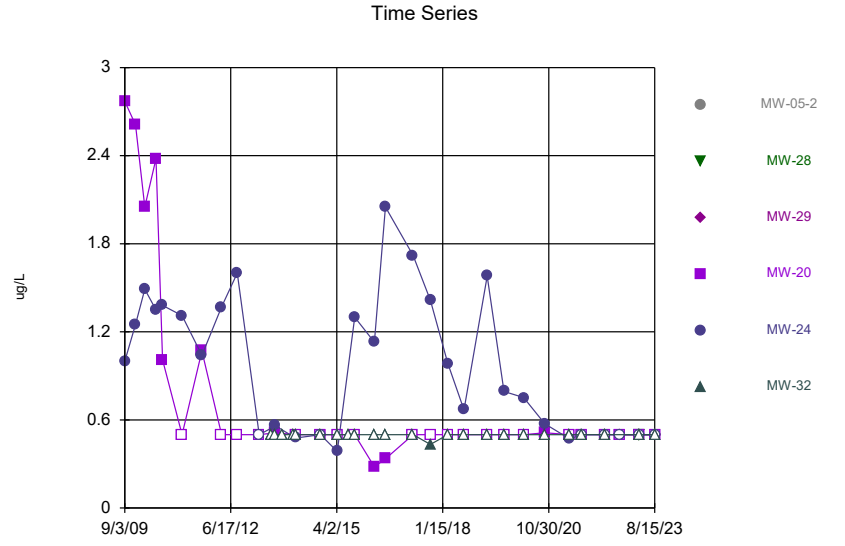

Constituent: Trichloroethene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main S
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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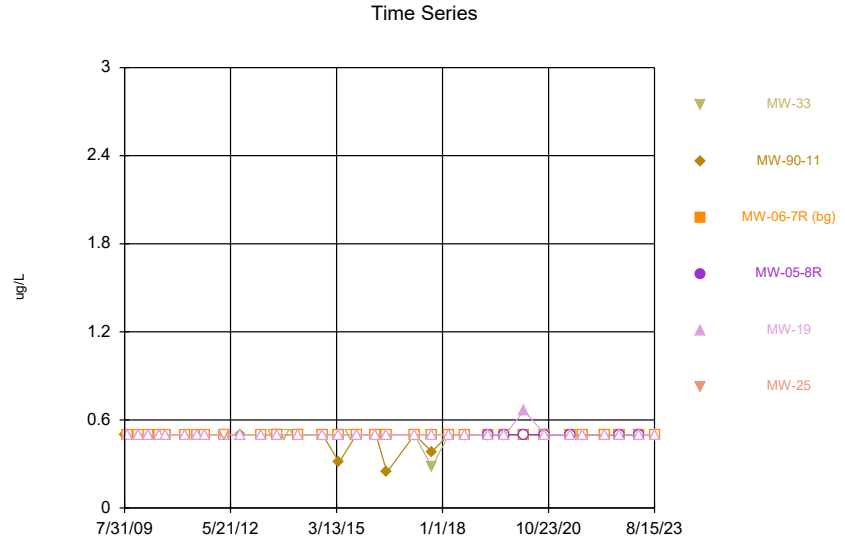
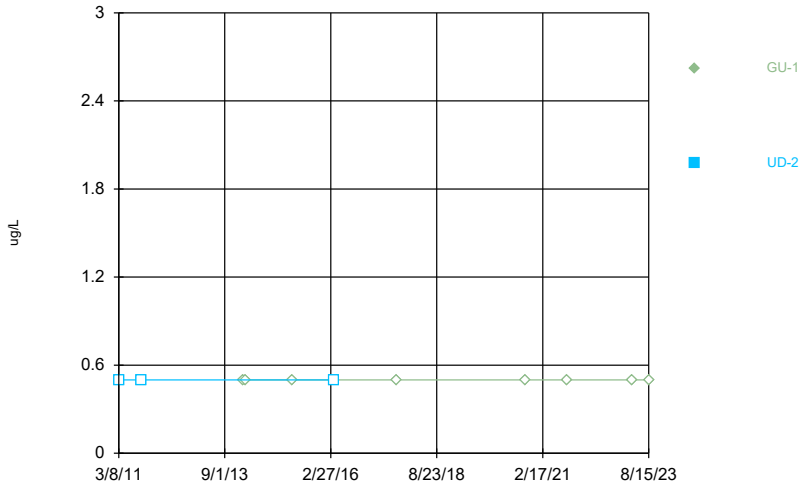


Constituent: Trichloroethene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main S
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Trichloroethene Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main S
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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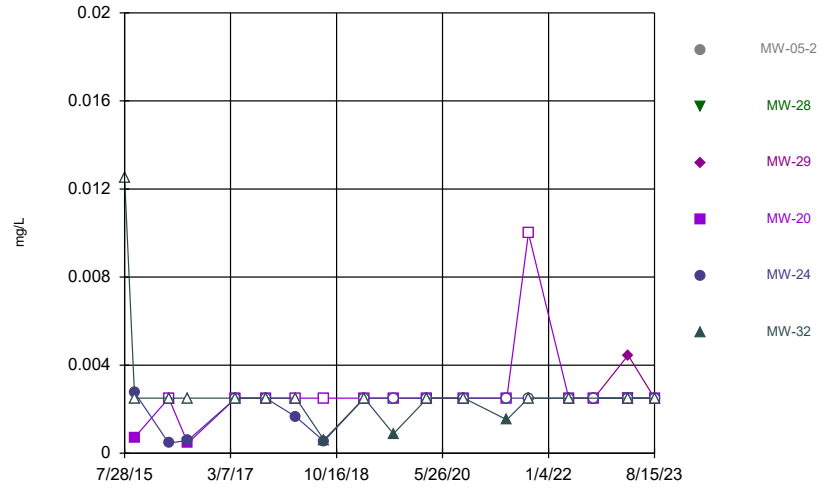
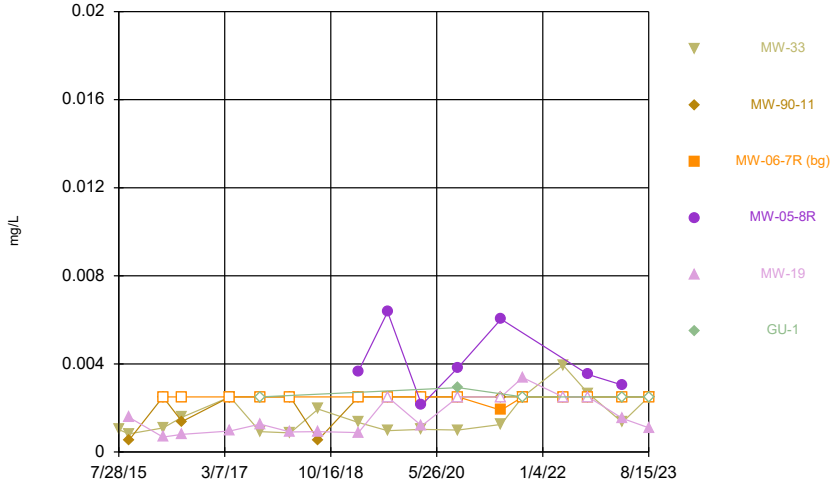
Time Series



Constituent: Vanadium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



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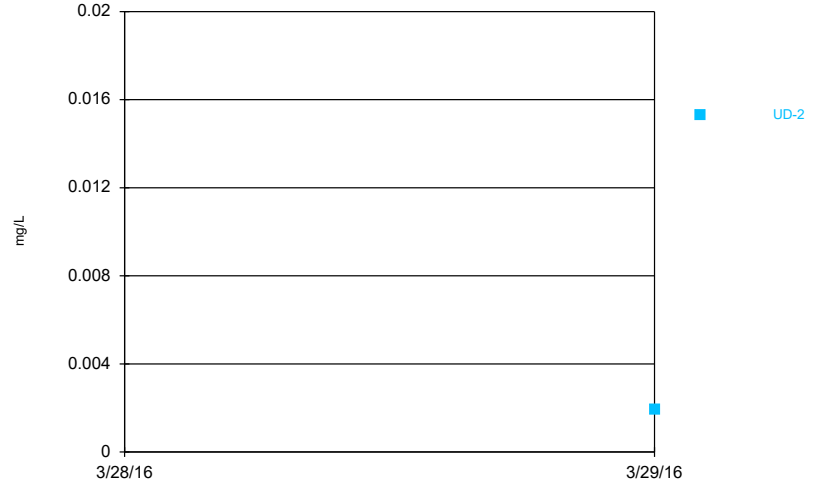
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series



Constituent: Vanadium Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source
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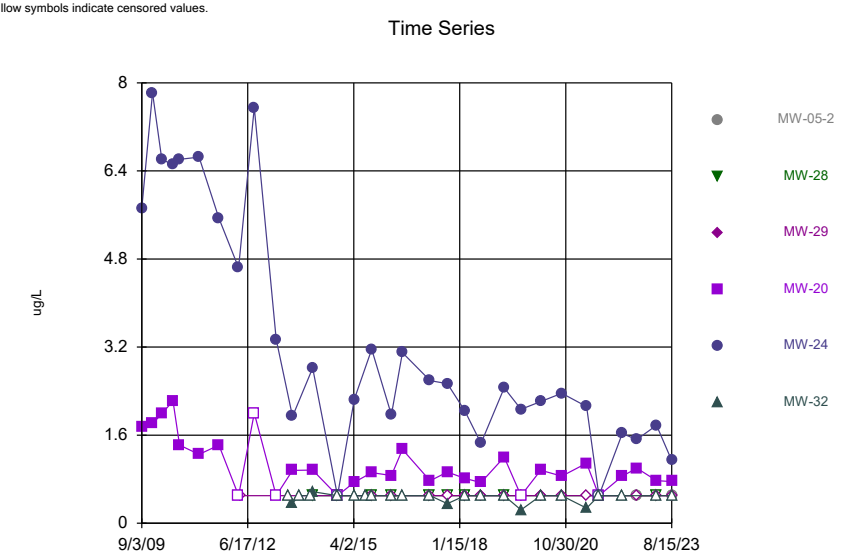
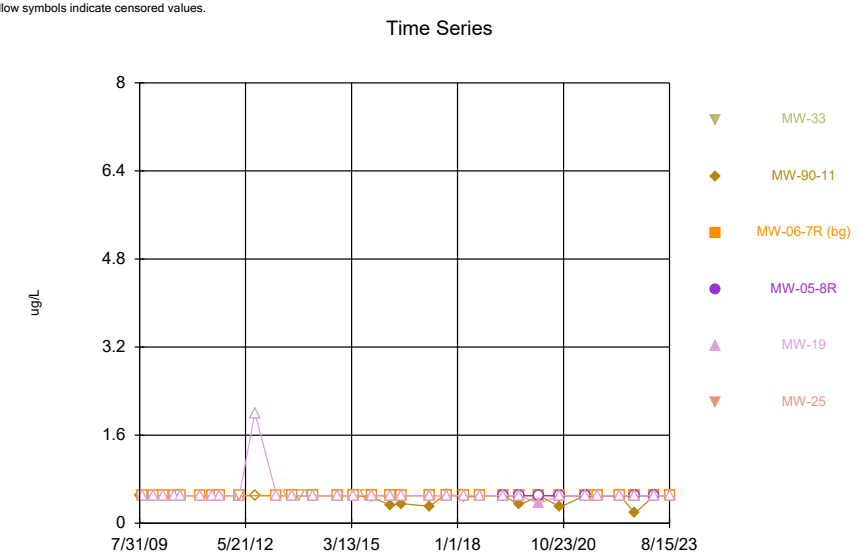
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Vinyl chloride Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Sour
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Vinyl chloride Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Sour
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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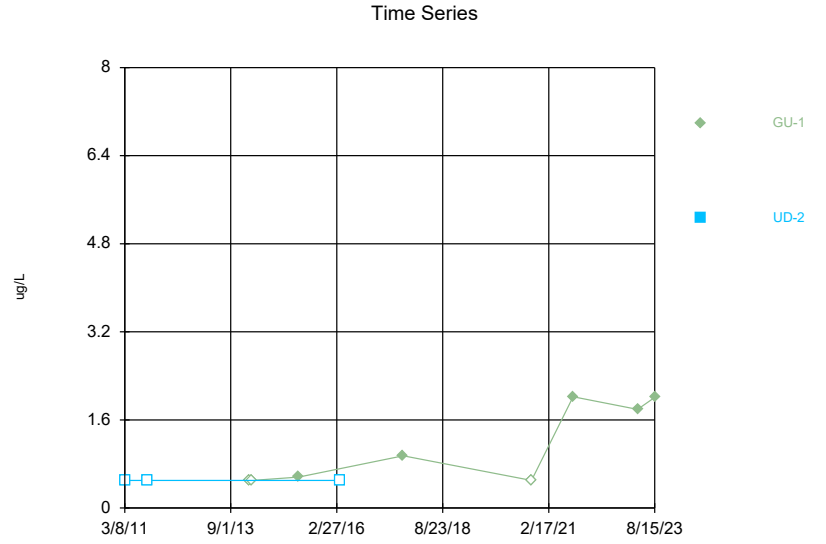

Constituent: Vinyl chloride Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Sour
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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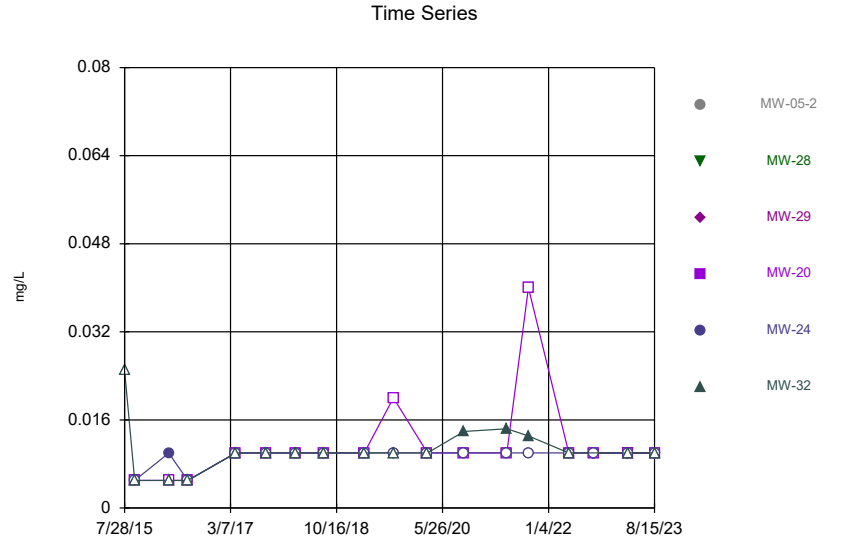
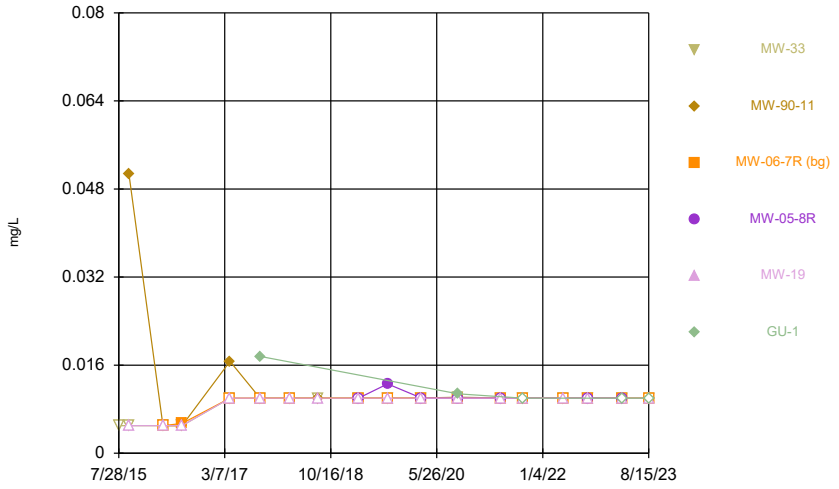


Constituent: Zinc Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZPO
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

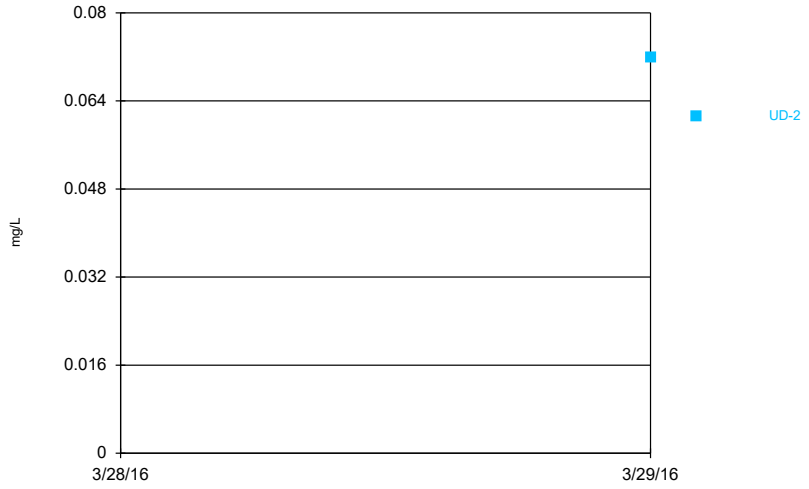
Time Series



Constituent: Zinc Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZPO
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Time Series



Constituent: Zinc Analysis Run 10/2/2023 12:13 PM View: 2023AWQR - Time Series - Main Source AZPO
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Time Series Plots

Bedrock

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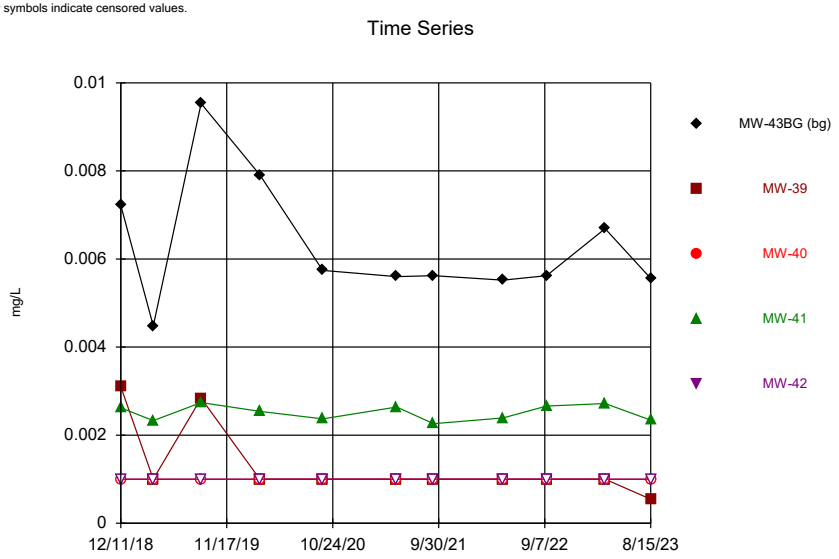
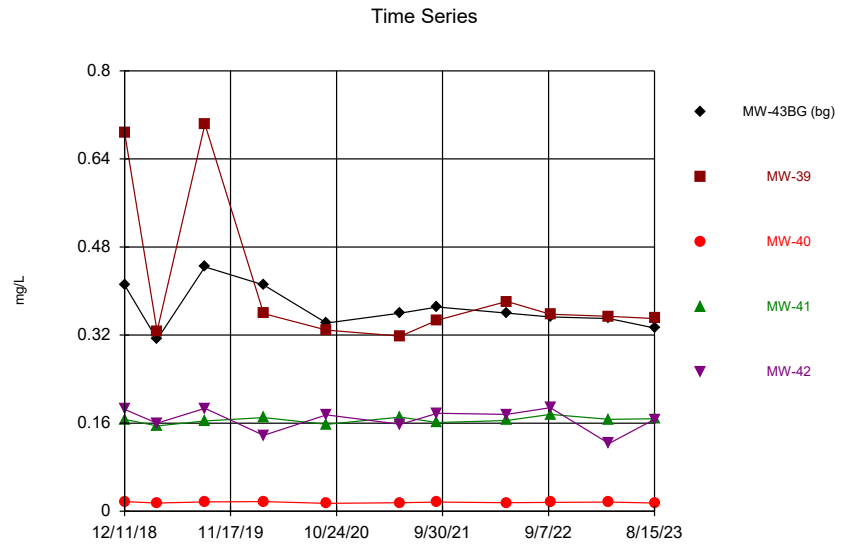
Hollow symbols indicate censored values.



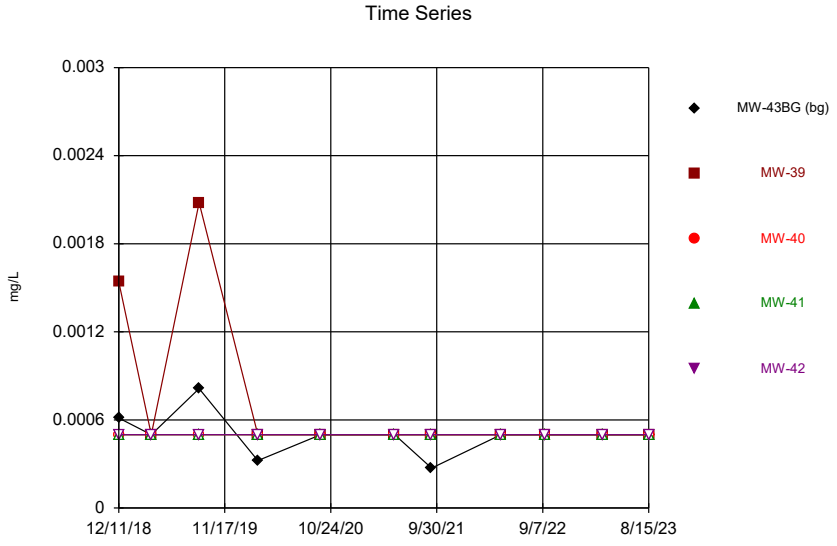
Constituent: Arsenic Analysis Run 10/2/2023 12:07 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Barium Analysis Run 10/2/2023 12:07 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Beryllium Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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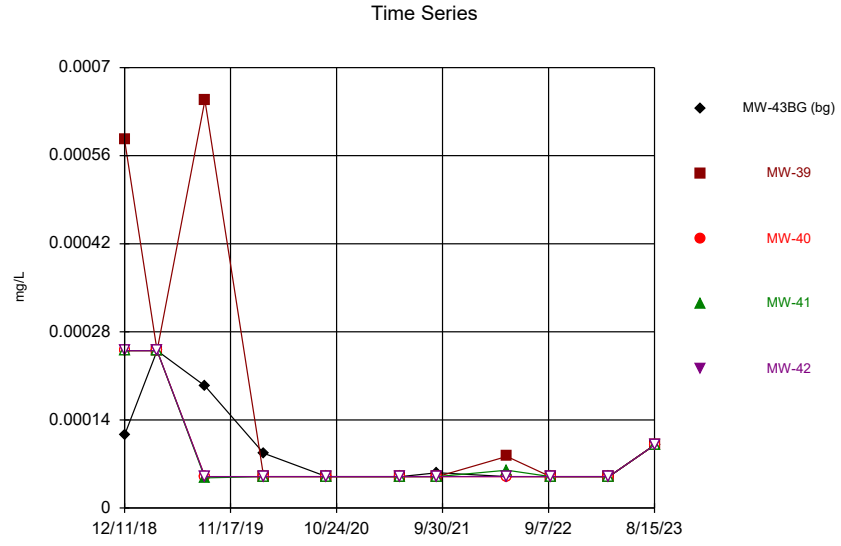

Constituent: Cadmium Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
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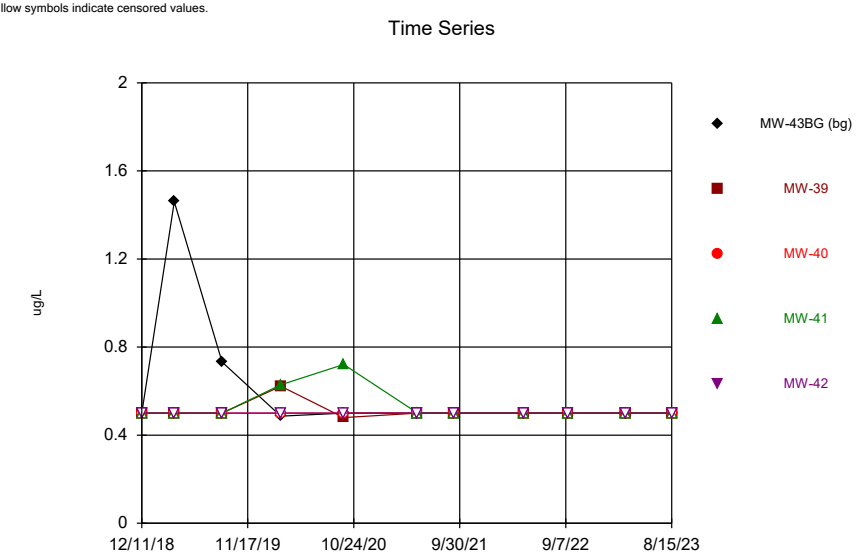
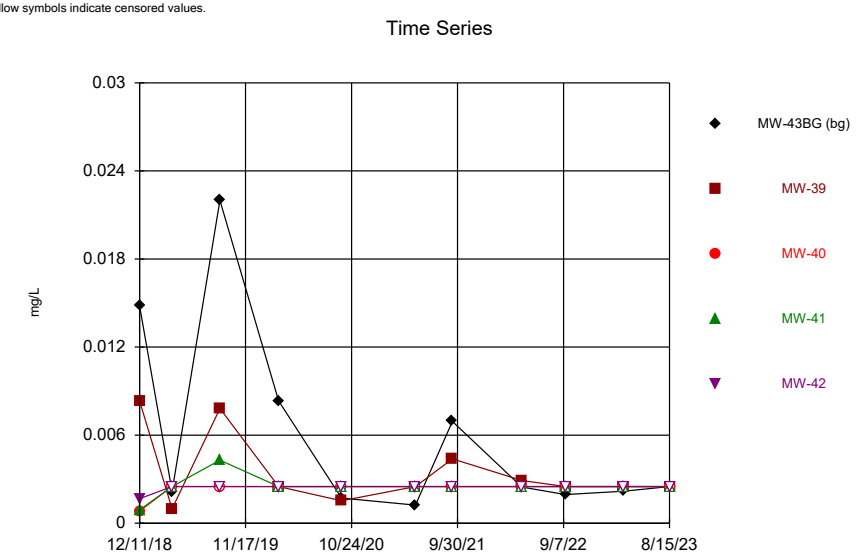


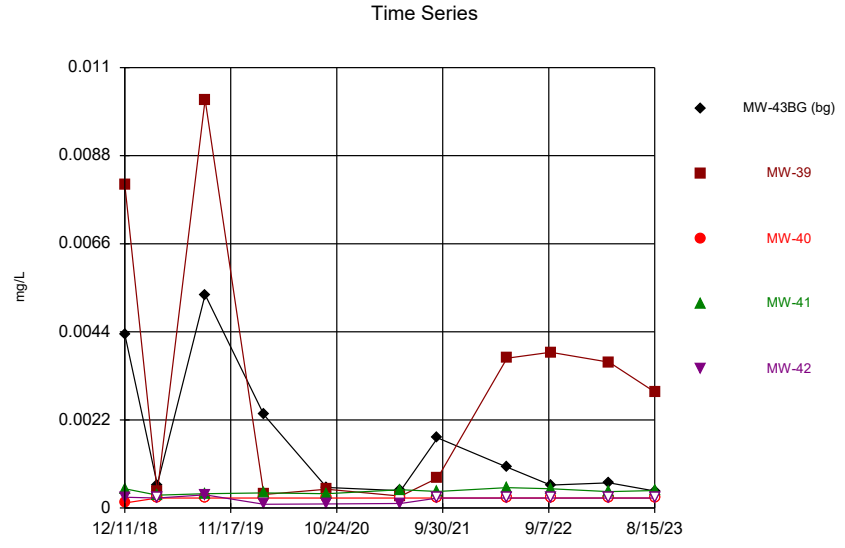
Constituent: Carbon disulfide Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedroc
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



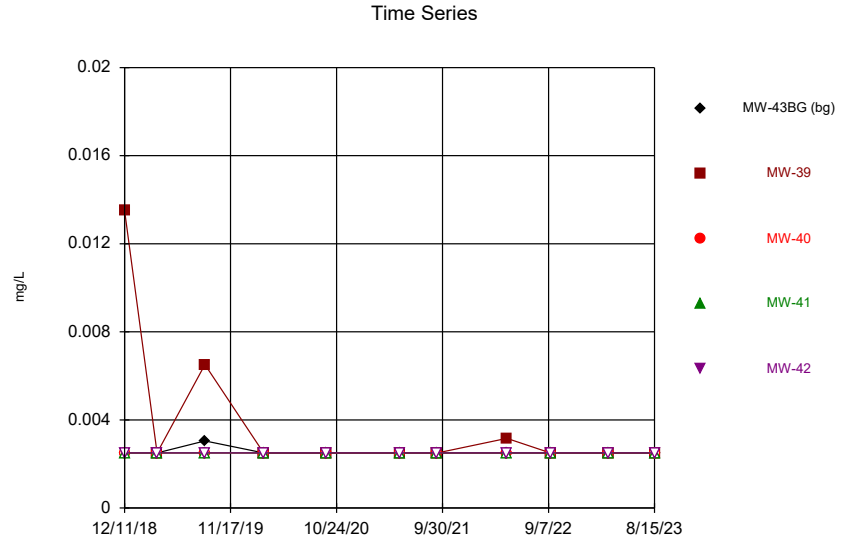
Constituent: Chromium Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Cobalt Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

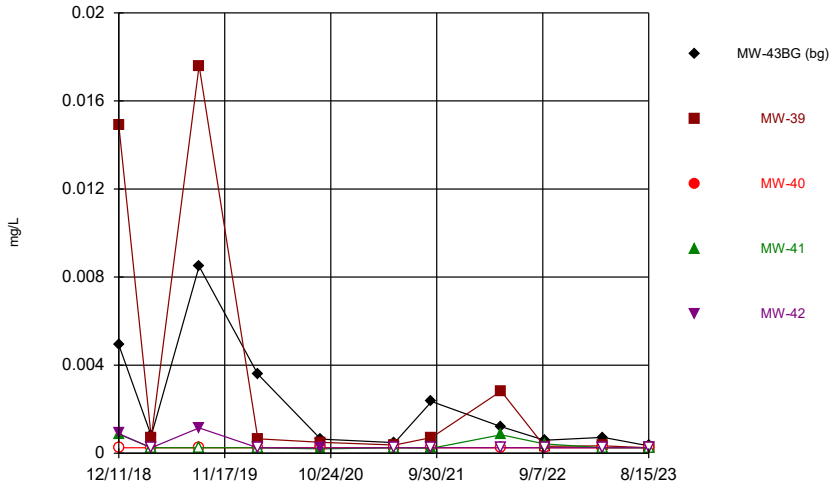
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Copper Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

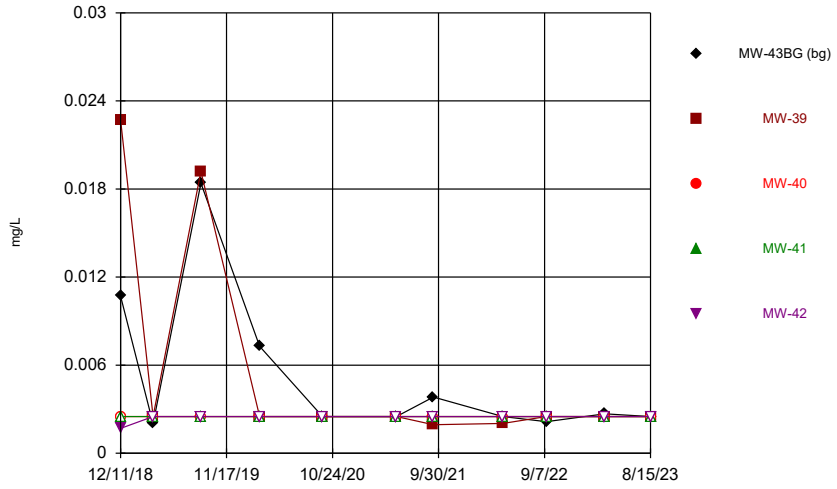
Time Series



Constituent: Lead Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

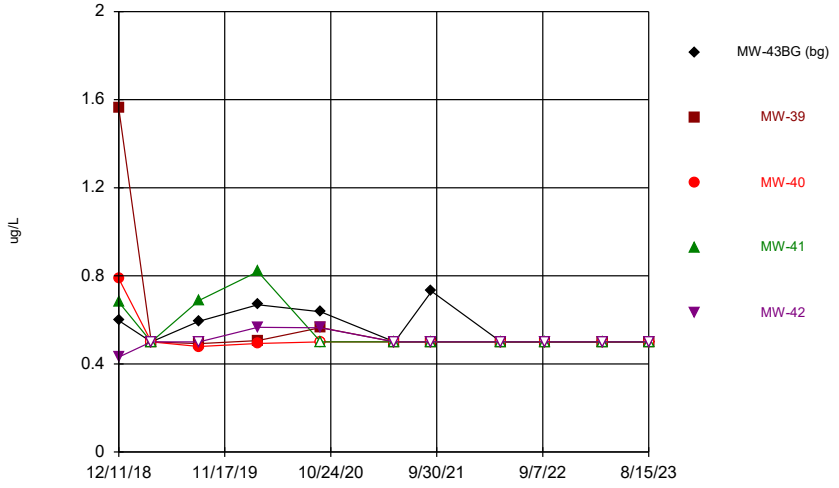
Time Series



Constituent: Nickel Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

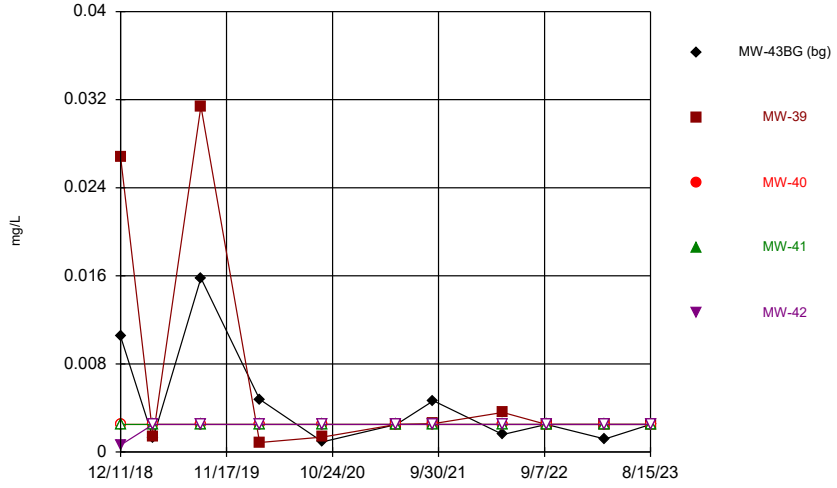
Time Series



Constituent: Toluene Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

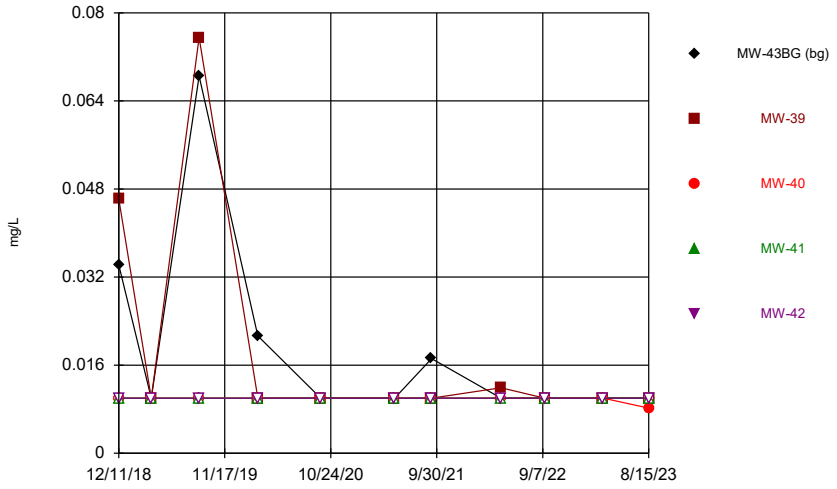
Time Series



Constituent: Vanadium Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 10/2/2023 12:08 PM View: 2023AWQR - Time Series - Bedrock
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Outlier Tests Summary Table and Graphs

Water Table Aquifer – MW-06-7R

Outlier Analysis

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 10/2/2023, 4:45 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Normality Test
Arsenic (mg/L)	MW-06-7R (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.002903	0.002163	ShapiroWilk
Barium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.1887	0.1045	ShapiroWilk
Cadmium (mg/L)	**MW-06-7R (bg)**	**Yes**	**0.00025,0.00025,0.00025,0.00025**	**3/29/2016,7/13/2016,3/5/2018,3/19/2019**	**OH**	**NaN**	**15**	**0.0001254**	**0.0000871**	**n/a**
Cobalt (mg/L)	MW-06-7R (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	15	0.0002209	0.00008177	ShapiroWilk
Lead (mg/L)	MW-06-7R (bg)	No	n/a	n/a	NP (nrm)/OH	NaN	15	0.0003725	0.0004787	ShapiroWilk
Nickel (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	15	0.002512	0.00004648	n/a
Selenium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	15	0.002374	0.0003332	n/a
Silver (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	15	0.0005793	0.0002354	n/a
Thallium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	15	0.0005342	0.0001508	n/a
Vanadium (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	15	0.00246	0.0001549	n/a
Zinc (mg/L)	MW-06-7R (bg)	No	n/a	n/a	OH	NaN	15	0.009361	0.001687	n/a

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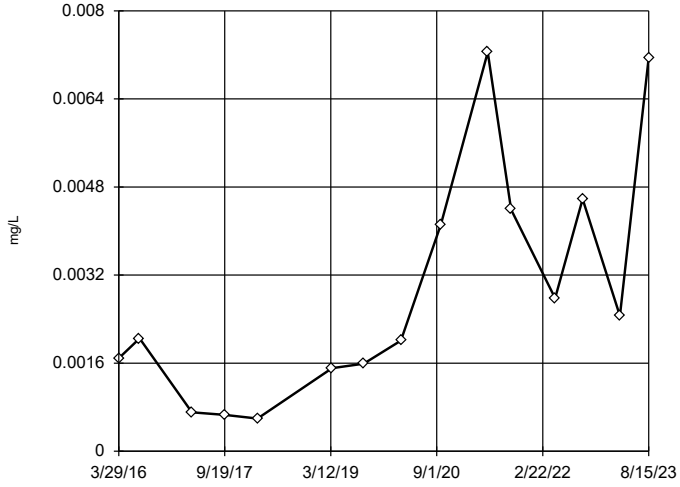
EPA Screening (suspected outliers for Dixon's Test)

MW-06-7R (bg)



n = 15

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.002903, std. dev. 0.002163, critical Tn 2.409

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8677
Critical = 0.835
The distribution was found to be normally distributed.

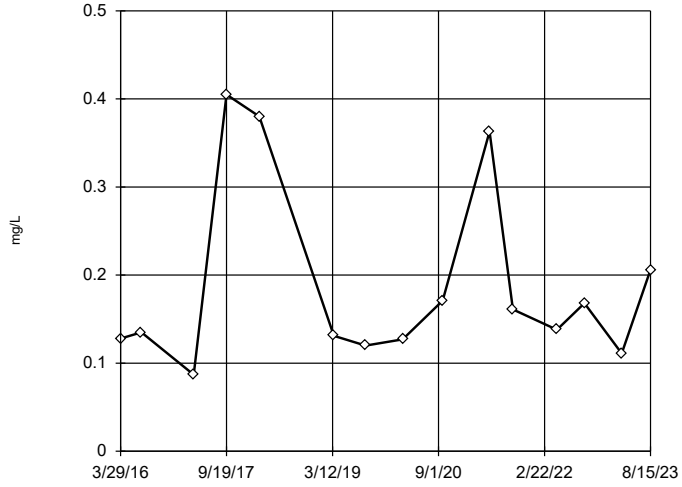
Constituent: Arsenic Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

EPA Screening (suspected outliers for Dixon's Test)

MW-06-7R (bg)



n = 15

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.1887, std. dev. 0.1045, critical Tn 2.409

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8632
Critical = 0.835 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Barium Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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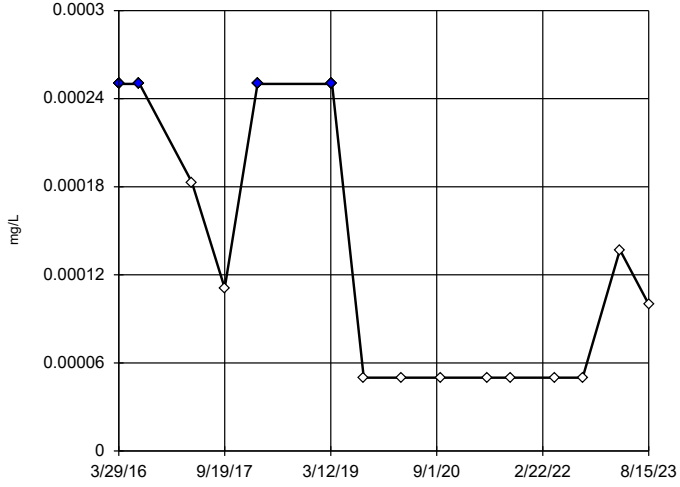
Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 15

Statistical outliers are drawn as solid.
Outliers per Ohio method.

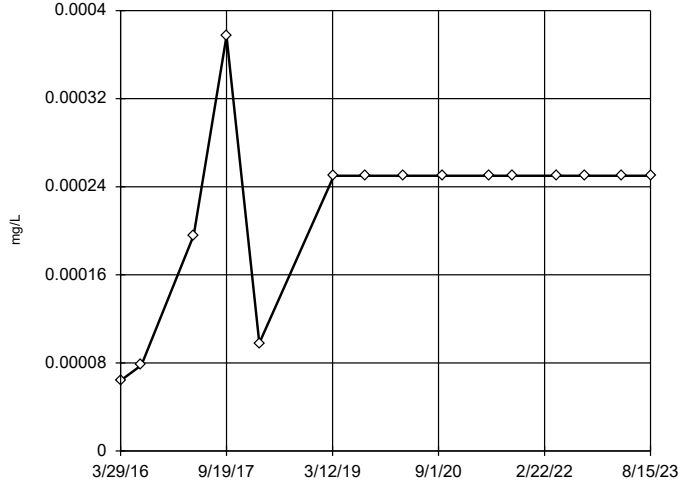
Constituent: Cadmium Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 15

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

High cutoff = 0.000412, low cutoff = 0.000034, based on IQR multiplier of 3.

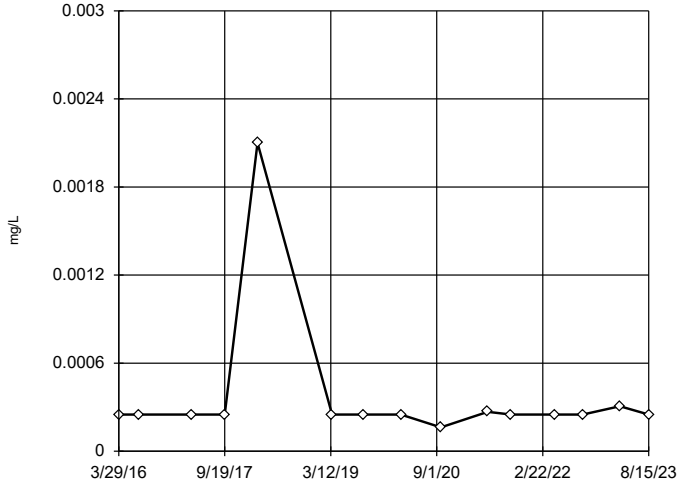
Constituent: Cobalt Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 15

No outliers found. Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

The results were invalidated, because the lower and upper quartiles are equal.

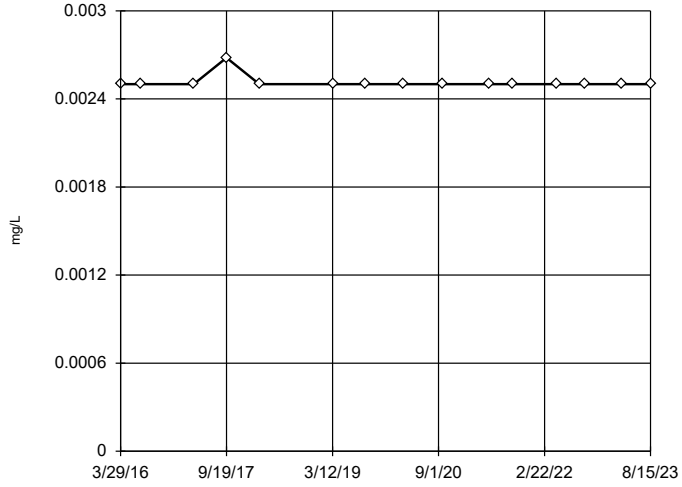
Constituent: Lead Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 15

No statistical outliers.

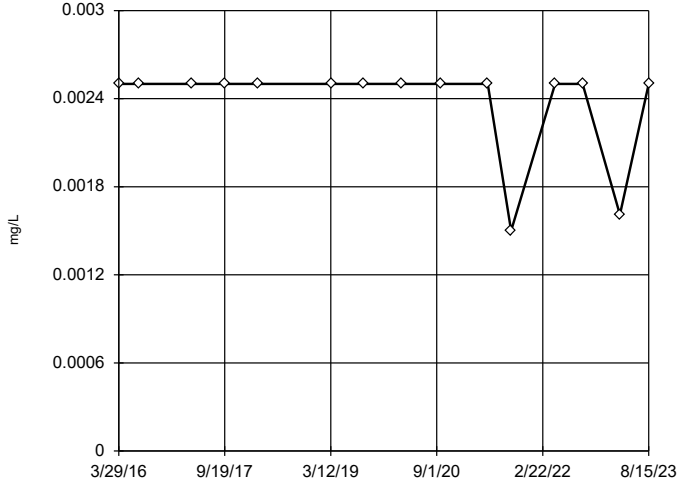
Constituent: Nickel Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



n = 15

No statistical outliers.

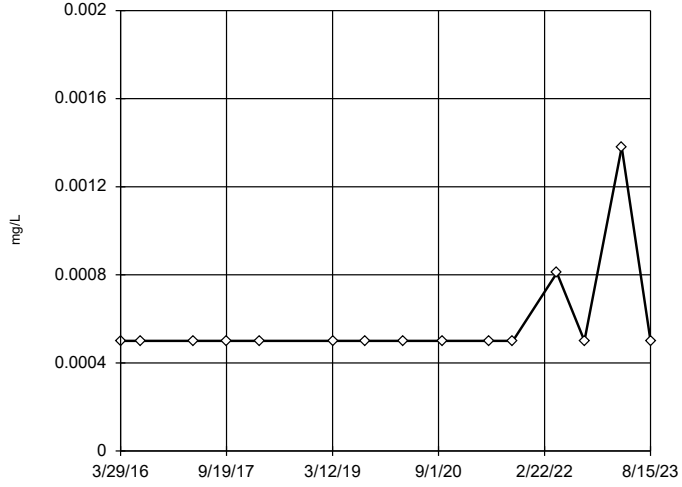
Constituent: Selenium Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm

MW-06-7R (bg)



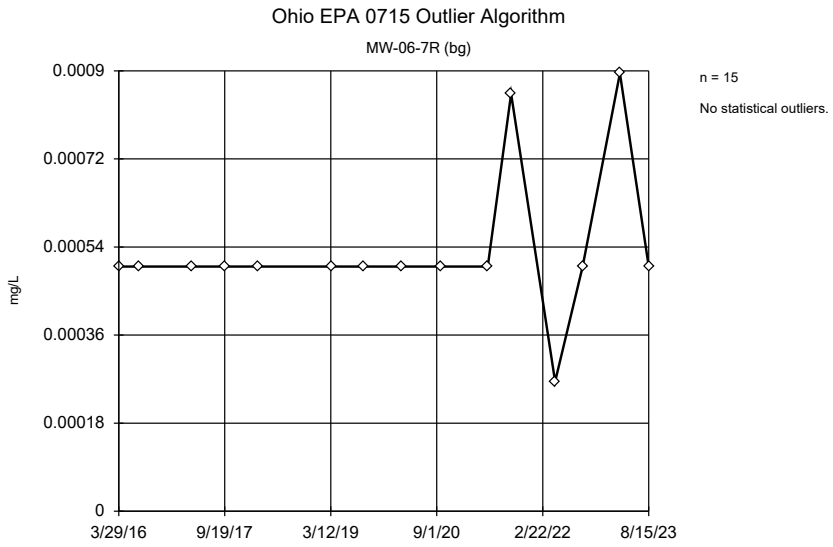
n = 15

No statistical outliers.

Constituent: Silver Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main

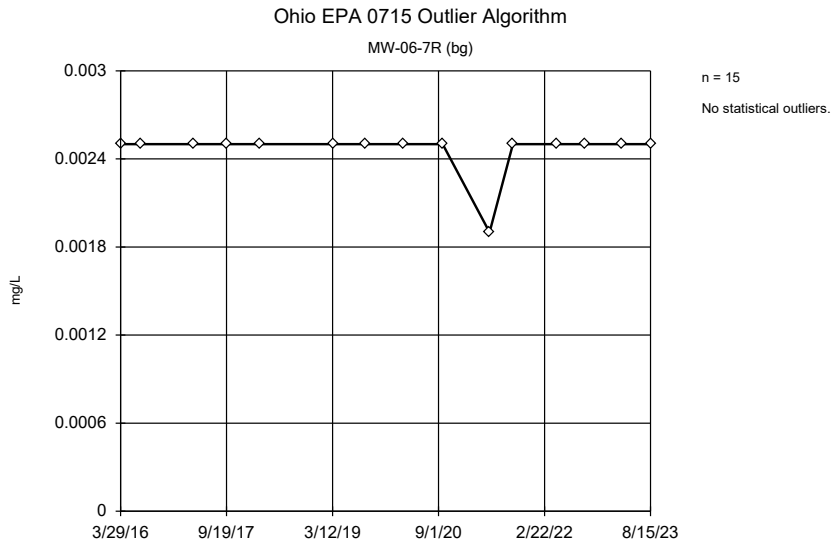
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



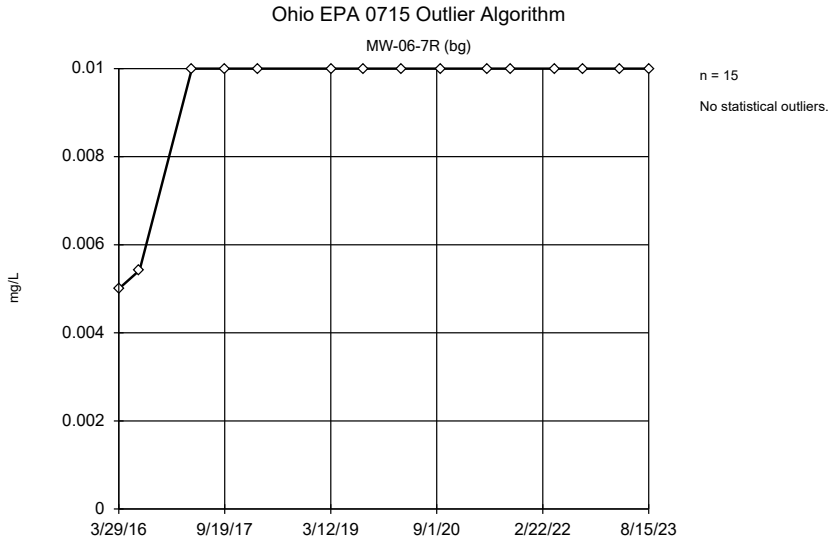
Constituent: Thallium Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Vanadium Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Zinc Analysis Run 10/2/2023 4:42 PM View: 2023AWQR - Outliers - Main
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Interwell Prediction Limit Summary Table and Graphs
Water Table Aquifer

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 10/2/2023, 4:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Barium (mg/L)	MW-05-2	0.5589	n/a	8/15/2023	0.1255	No	15	0	ln(x)	0.000532	Param Inter 1 of 2
Barium (mg/L)	MW-29	0.5589	n/a	8/15/2023	0.14	No	15	0	ln(x)	0.000532	Param Inter 1 of 2
Barium (mg/L)	MW-19	0.5589	n/a	8/15/2023	0.166	No	15	0	ln(x)	0.000532	Param Inter 1 of 2
Cadmium (mg/L)	**MW-19**	**0.00025**	**n/a**	**8/15/2023**	**0.000279**	**Yes**	**15**	**80**	**n/a**	**0.006187**	**NP Inter (NDs) 1 of 2**
Cobalt (mg/L)	**MW-19**	**0.000377**	**n/a**	**8/15/2023**	**0.000557**	**Yes**	**15**	**66.67**	**n/a**	**0.006187**	**NP Inter (NDs) 1 of 2**
Lead (mg/L)	MW-19	0.0021	n/a	8/15/2023	0.000986	No	15	73.33	n/a	0.006187	NP Inter (NDs) 1 of 2
Thallium (mg/L)	**MW-19**	**0.000895**	**n/a**	**8/15/2023**	**0.00186**	**Yes**	**15**	**80**	**n/a**	**0.006187**	**NP Inter (NDs) 1 of 2**

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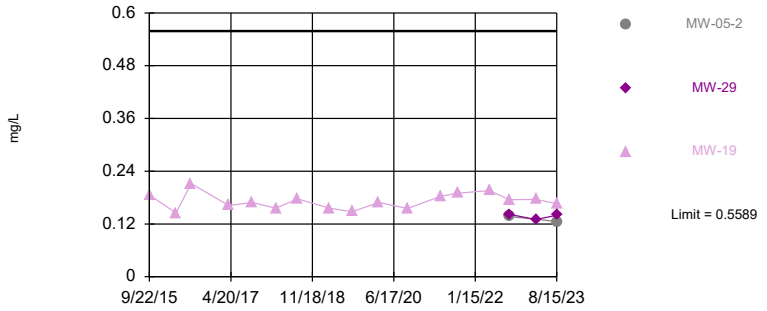
Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.782, Std. Dev.=0.4704, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8632, critical = 0.835. Kappa = 2.552 (c=11, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.004778. Individual comparison alpha = 0.000532. Comparing 3 points to limit. Assumes 6 future values.

Constituent: Barium Analysis Run 10/2/2023 4:57 PM View: 2023AWQR - PL Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

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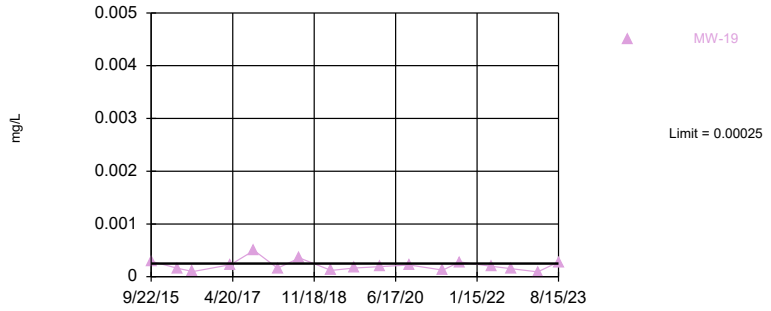
Exceeds Limit: MW-19

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 80% NDs. Annual per-constituent alpha = 0.1057. Individual comparison alpha = 0.006187 (1 of 2). Assumes 8 future values.

Constituent: Cadmium Analysis Run 10/2/2023 4:57 PM View: 2023AWQR - PL Main

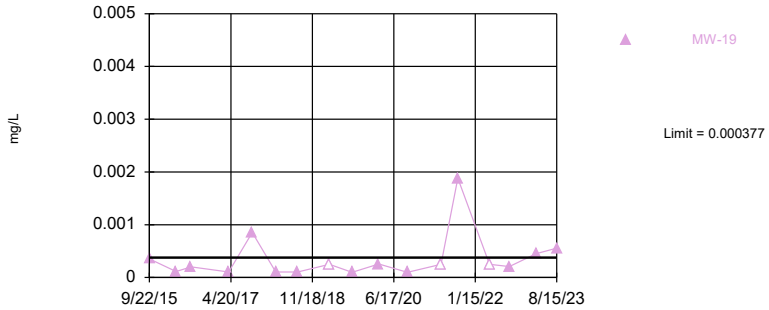
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-19

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 66.67% NDs. Annual per-constituent alpha = 0.1057. Individual comparison alpha = 0.006187 (1 of 2). Assumes 8 future values.

Constituent: Cobalt Analysis Run 10/2/2023 4:57 PM View: 2023AWQR - PL Main

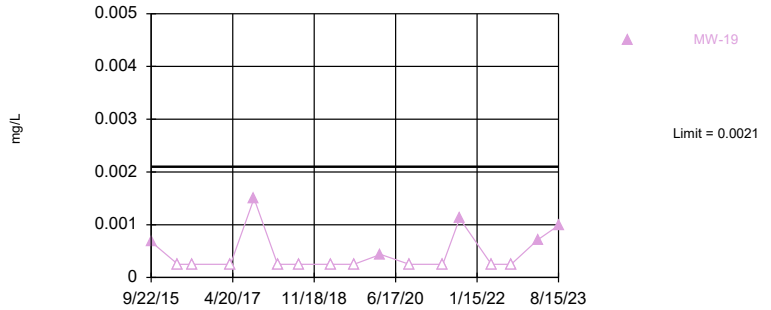
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 73.33% NDs. Annual per-constituent alpha = 0.1057. Individual comparison alpha = 0.006187 (1 of 2). Assumes 8 future values.

Constituent: Lead Analysis Run 10/2/2023 4:57 PM View: 2023AWQR - PL Main

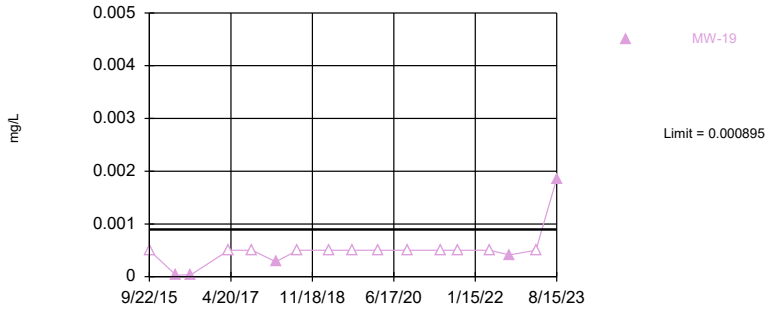
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-19

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 80% NDs. Annual per-constituent alpha = 0.1057. Individual comparison alpha = 0.006187 (1 of 2). Assumes 8 future values.

Constituent: Thallium Analysis Run 10/2/2023 4:57 PM View: 2023AWQR - PL Main

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Intrawell Prediction Limit Summary Table and Graphs
Bedrock

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 10/3/2023, 11:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Arsenic (mg/L)	MW-39	0.0031	n/a	8/15/2023	0.000547J	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-39	0.703	n/a	8/15/2023	0.35	No	8	0	n/a	0.02144	NP Intra (normality) 1 of 2
Beryllium (mg/L)	MW-39	0.00208	n/a	8/15/2023	0.0005ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Cadmium (mg/L)	MW-39	0.000648	n/a	8/15/2023	0.0001ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-39	0.01175	n/a	8/15/2023	0.0025ND	No	8	25	No	0.001097	Param Intra 1 of 2
Cobalt (mg/L)	MW-39	0.02131	n/a	8/15/2023	0.0029	No	8	0	sqrt(x)	0.001097	Param Intra 1 of 2
Copper (mg/L)	MW-39	0.0135	n/a	8/15/2023	0.0025ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-39	0.1477	n/a	8/15/2023	0.00025ND	No	8	0	ln(x)	0.001097	Param Intra 1 of 2
Nickel (mg/L)	MW-39	0.0227	n/a	8/15/2023	0.0025ND	No	8	50	n/a	0.02144	NP Intra (normality) 1 of 2
Selenium (mg/L)	MW-39	0.0025	n/a	8/15/2023	0.0025ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-39	0.07673	n/a	8/15/2023	0.0025ND	No	8	12.5	x^(1/3)	0.001097	Param Intra 1 of 2
Zinc (mg/L)	MW-39	0.0755	n/a	8/15/2023	0.01ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2

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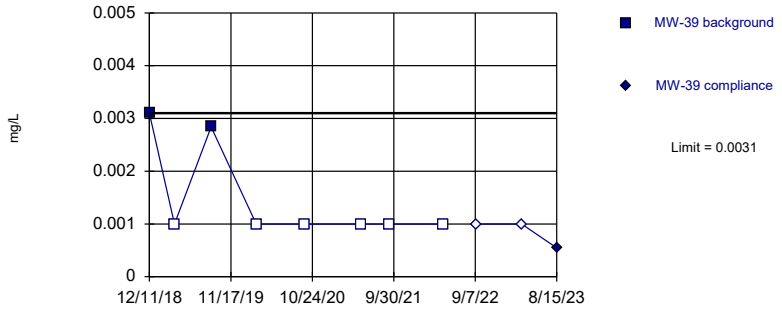
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



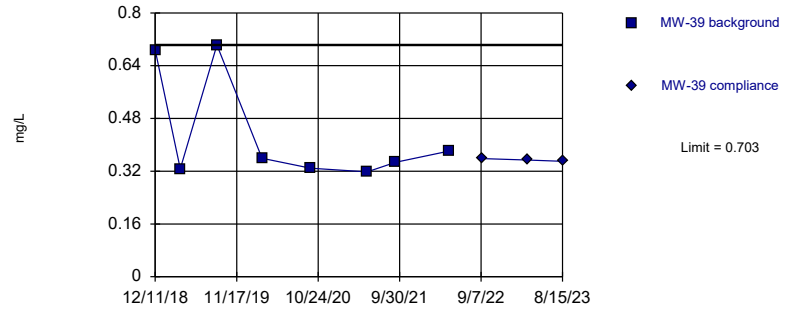
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Arsenic Analysis Run 10/3/2023 11:41 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Within Limit

Prediction Limit

Intrawell Non-parametric



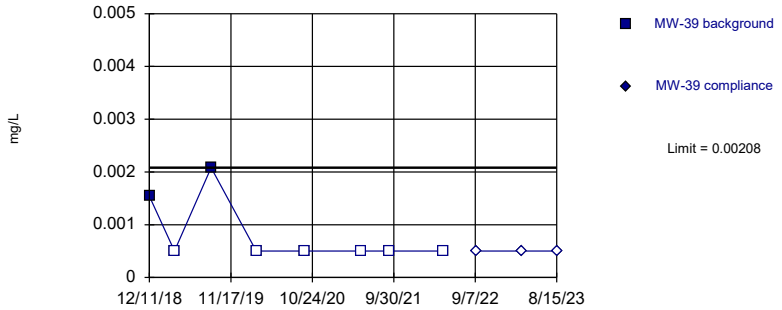
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Barium Analysis Run 10/3/2023 11:41 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



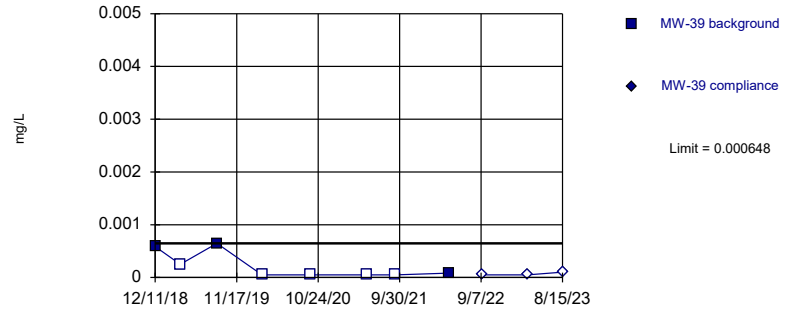
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Beryllium Analysis Run 10/3/2023 11:41 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



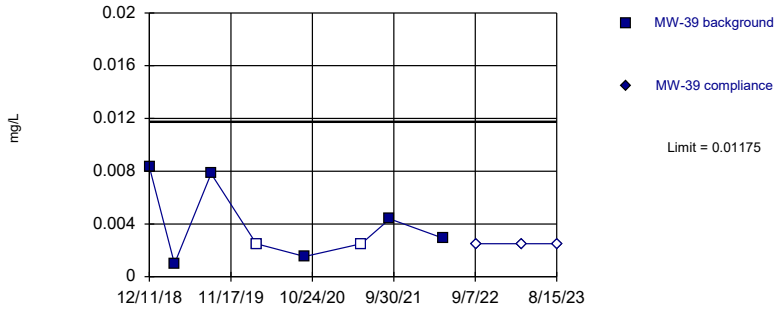
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Cadmium Analysis Run 10/3/2023 11:41 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



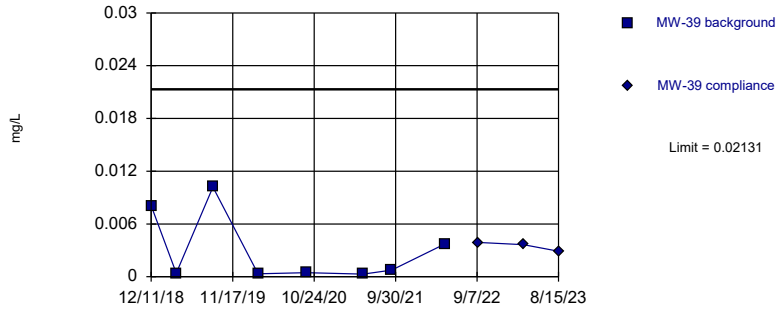
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.003856, Std. Dev.=0.002693, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8495, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Chromium Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Within Limit

Prediction Limit

Intrawell Parametric



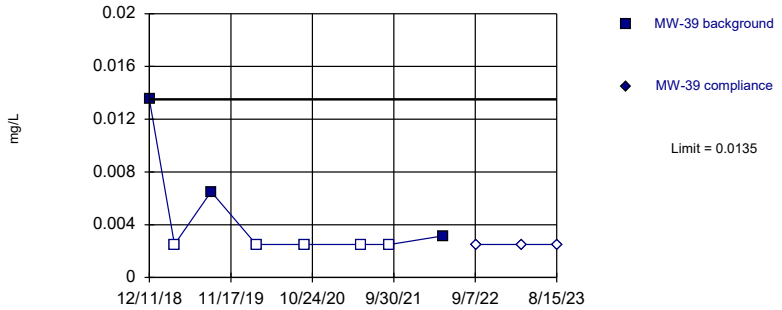
Background Data Summary (based on square root transformation): Mean=0.04459, Std. Dev.=0.03457, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7798, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Cobalt Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



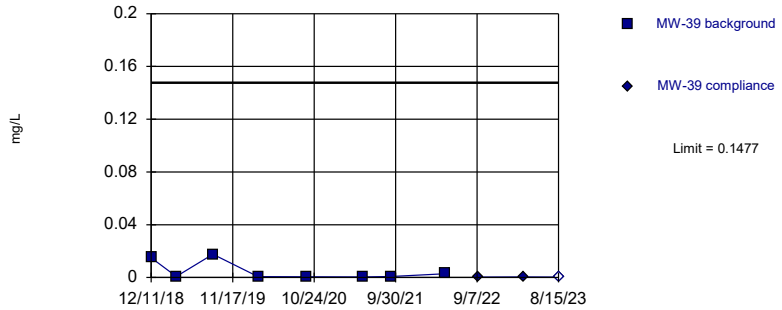
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Copper Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



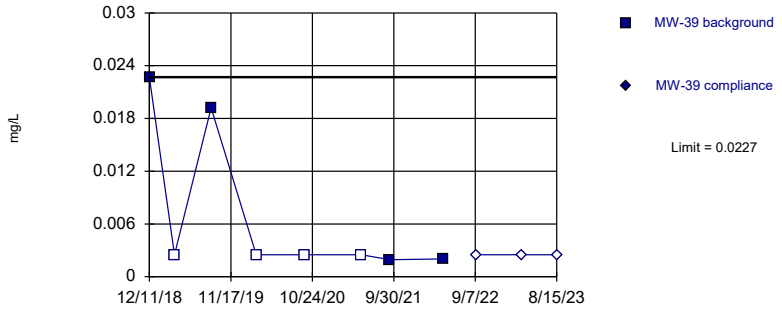
Background Data Summary (based on natural log transformation): Mean=-6.427, Std. Dev.=1.54, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8069, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Lead Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



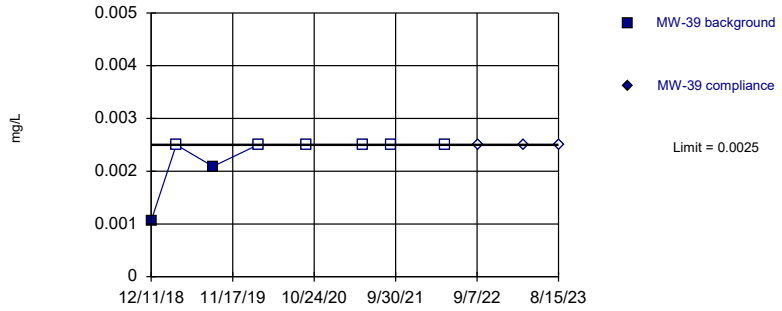
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 50% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Nickel Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



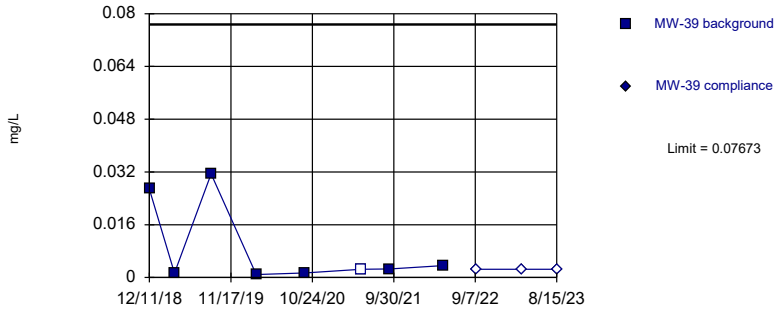
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Selenium Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



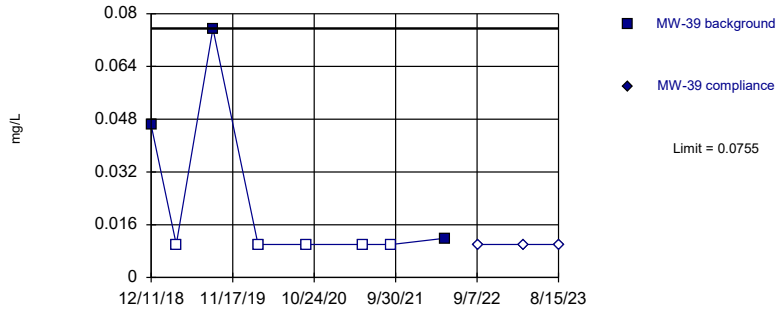
Background Data Summary (based on cube root transformation): Mean=0.1696, Std. Dev.=0.08708, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7579, critical = 0.749. Kappa = 2.932 (c=12, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.001097.

Constituent: Vanadium Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Zinc Analysis Run 10/3/2023 11:42 AM View: 2023AWQR - IntraPL MW-39
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 10/3/2023, 12:10 PM

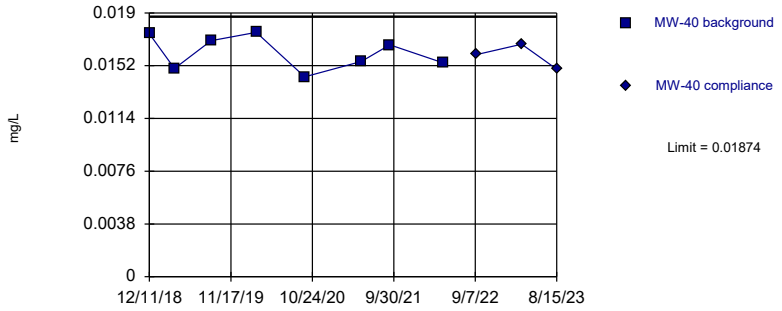
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Barium (mg/L)	MW-40	0.01874	n/a	8/15/2023	0.01495	No	8	0	No	0.00438	Param Intra 1 of 2
Chromium (mg/L)	MW-40	0.0025	n/a	8/15/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-40	0.00025	n/a	8/15/2023	0.00025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.01614, Std. Dev.=0.001214, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9157, critical = 0.749. Kappa = 2.14 (c=3, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00438.

Constituent: Barium Analysis Run 10/3/2023 12:09 PM View: 2023AWQR - IntraPL MW-40

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

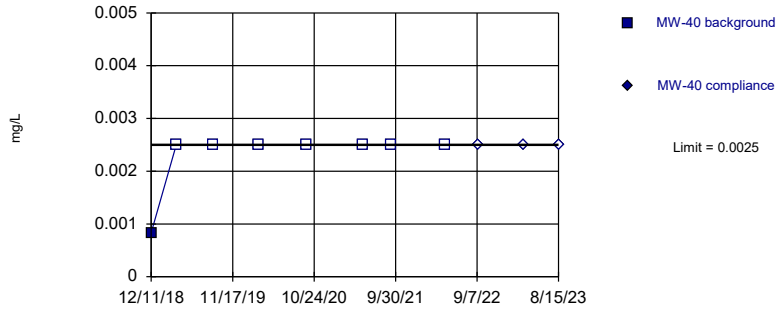
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chromium Analysis Run 10/3/2023 12:09 PM View: 2023AWQR - IntraPL MW-40

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

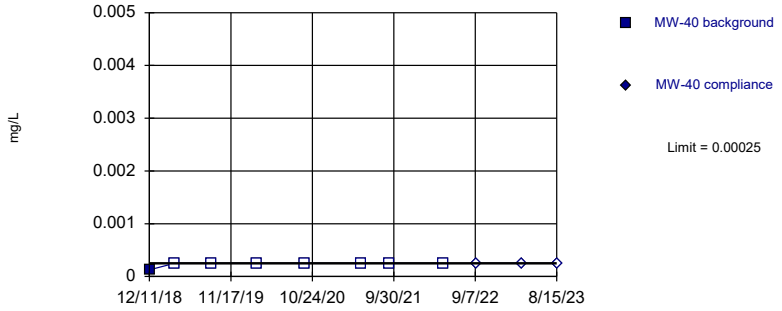
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Cobalt Analysis Run 10/3/2023 12:09 PM View: 2023AWQR - IntraPL MW-40

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 10/3/2023, 12:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Arsenic (mg/L)	MW-41	0.002923	n/a	8/15/2023	0.00234	No	8	0	No	0.002193	Param Intra 1 of 2
Barium (mg/L)	MW-41	0.1781	n/a	8/15/2023	0.168	No	8	0	No	0.002193	Param Intra 1 of 2
Cadmium (mg/L)	MW-41	0.00025	n/a	8/15/2023	0.0001ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-41	0.0043	n/a	8/15/2023	0.0025ND	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-41	0.0005807	n/a	8/15/2023	0.000436J	No	8	0	No	0.002193	Param Intra 1 of 2
Lead (mg/L)	MW-41	0.000869	n/a	8/15/2023	0.00025ND	No	8	50	n/a	0.02144	NP Intra (normality) 1 of 2

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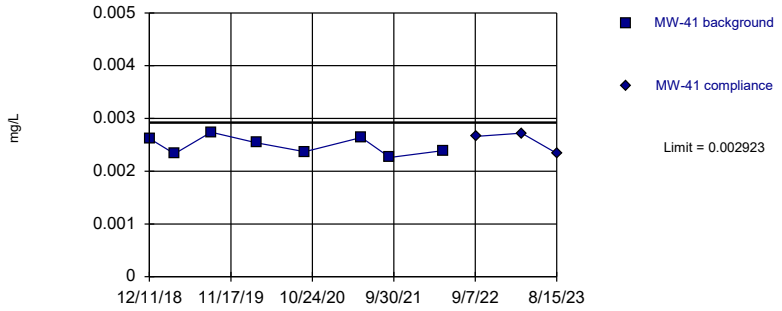
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.002486, Std. Dev.=0.000172, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9368, critical = 0.749. Kappa = 2.538 (c=6, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.002193.

Constituent: Arsenic Analysis Run 10/3/2023 12:13 PM View: 2023AWQR - IntraPL MW-41

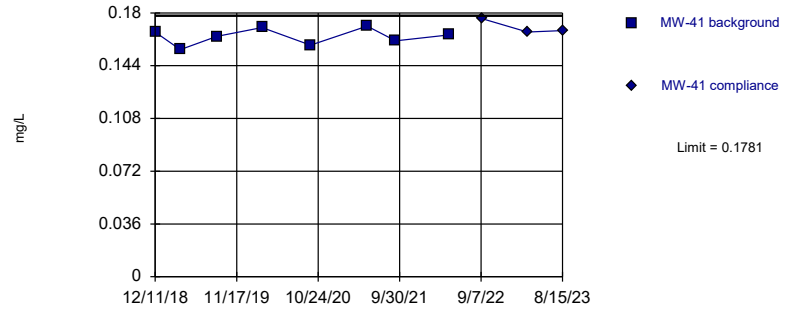
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1639, Std. Dev.=0.005617, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.749. Kappa = 2.538 (c=6, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.002193.

Constituent: Barium Analysis Run 10/3/2023 12:13 PM View: 2023AWQR - IntraPL MW-41

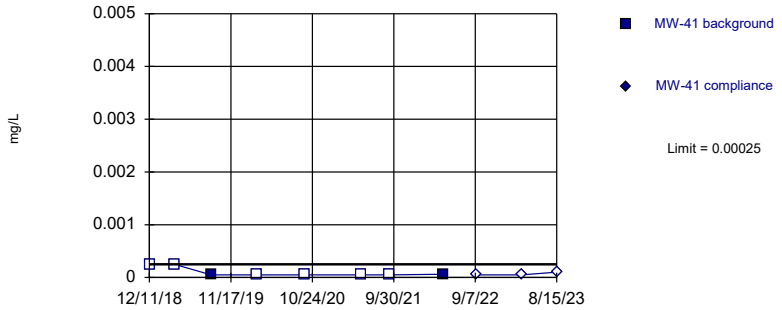
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Cadmium Analysis Run 10/3/2023 12:13 PM View: 2023AWQR - IntraPL MW-41

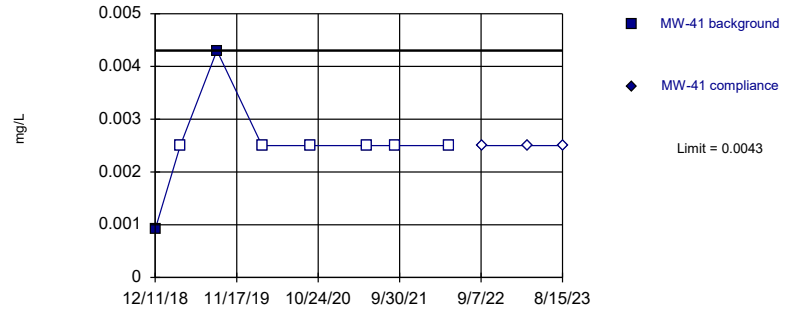
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chromium Analysis Run 10/3/2023 12:13 PM View: 2023AWQR - IntraPL MW-41

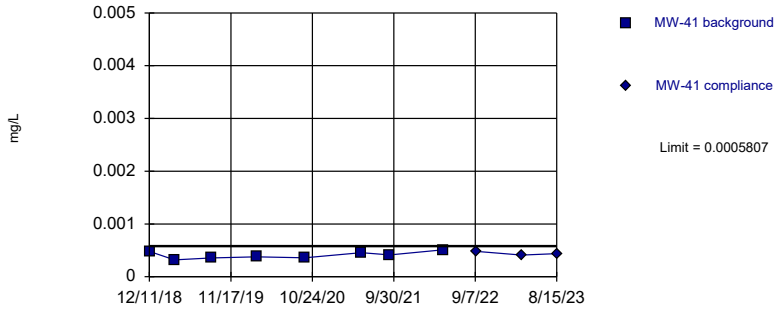
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.0004088, Std. Dev.=0.00006774, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9406, critical = 0.749. Kappa = 2.538 (c=6, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.002193.

Constituent: Cobalt Analysis Run 10/3/2023 12:13 PM View: 2023AWQR - IntraPL MW-41

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

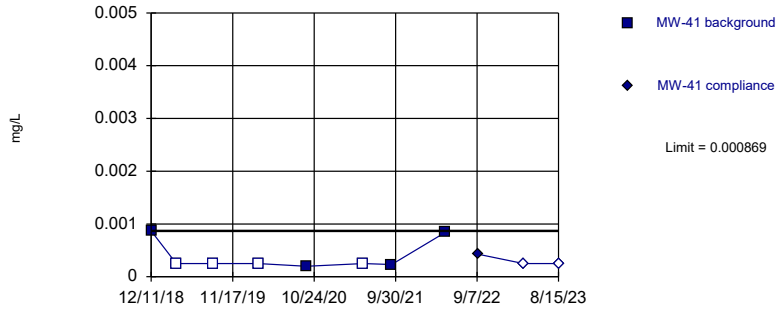
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 50% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Lead Analysis Run 10/3/2023 12:13 PM View: 2023AWQR - IntraPL MW-41

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Prediction Limit

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP Printed 10/3/2023, 12:18 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Trans...	Alpha	Method
Barium (mg/L)	MW-42	0.2128	n/a	8/15/2023	0.167	No	8	0	No	0.00188	Param Intra 1 of 2
Chromium (mg/L)	MW-42	0.0025	n/a	8/15/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-42	0.0004407	n/a	8/15/2023	0.00025ND	No	8	37.5	No	0.00188	Param Intra 1 of 2
Lead (mg/L)	MW-42	0.00115	n/a	8/15/2023	0.00025ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-42	0.0025	n/a	8/15/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Selenium (mg/L)	MW-42	0.002836	n/a	8/15/2023	0.00157J	No	8	0	No	0.00188	Param Intra 1 of 2
Vanadium (mg/L)	MW-42	0.0025	n/a	8/15/2023	0.0025ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2

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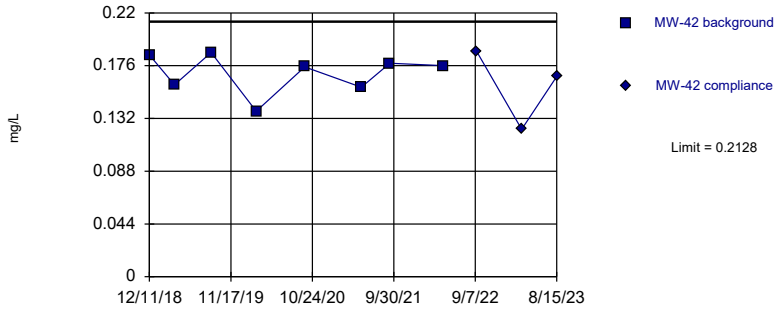
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1696, Std. Dev.=0.0165, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8989, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Barium Analysis Run 10/3/2023 12:17 PM View: 2023AWQR - IntraPL MW-42

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

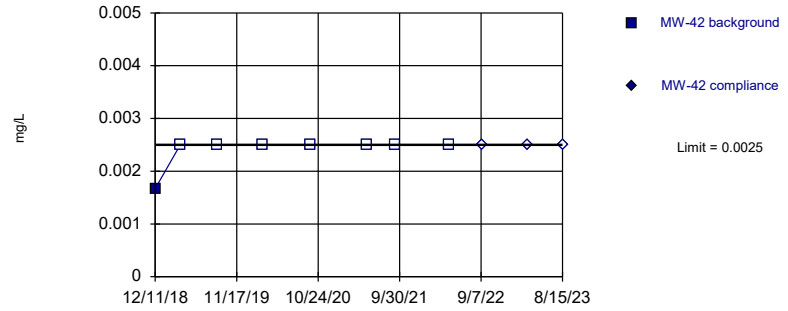
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chromium Analysis Run 10/3/2023 12:17 PM View: 2023AWQR - IntraPL MW-42

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

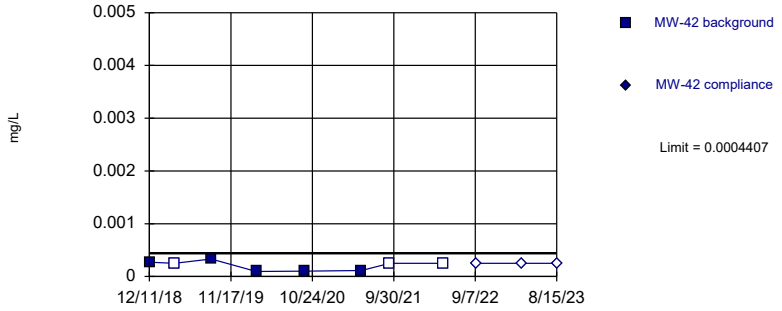
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0001818, Std. Dev.=0.00009897, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8416, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Cobalt Analysis Run 10/3/2023 12:17 PM View: 2023AWQR - IntraPL MW-42

Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

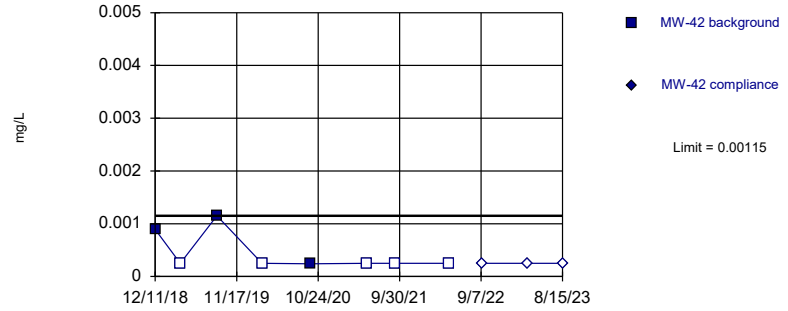
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Lead Analysis Run 10/3/2023 12:17 PM View: 2023AWQR - IntraPL MW-42

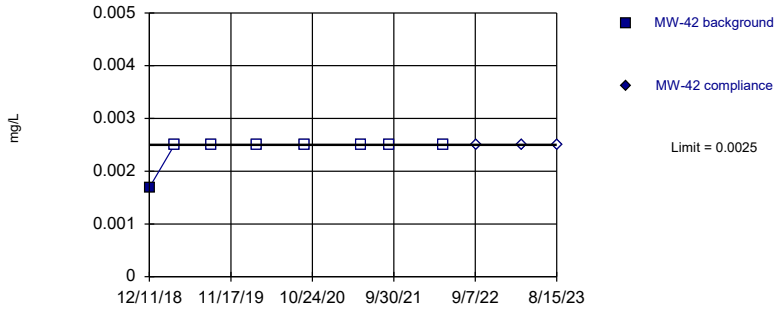
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

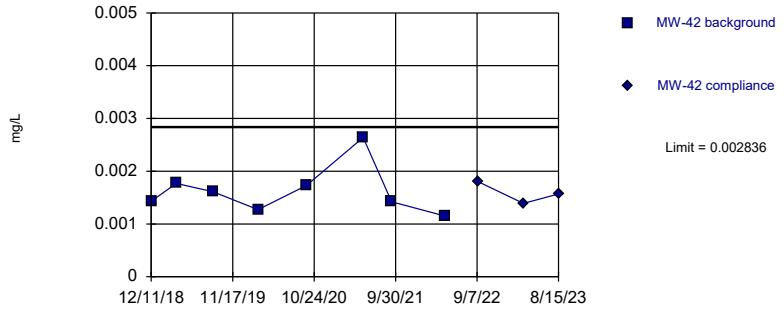
Constituent: Nickel Analysis Run 10/3/2023 12:17 PM View: 2023AWQR - IntraPL MW-42
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.001628, Std. Dev.=0.000462, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8457, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

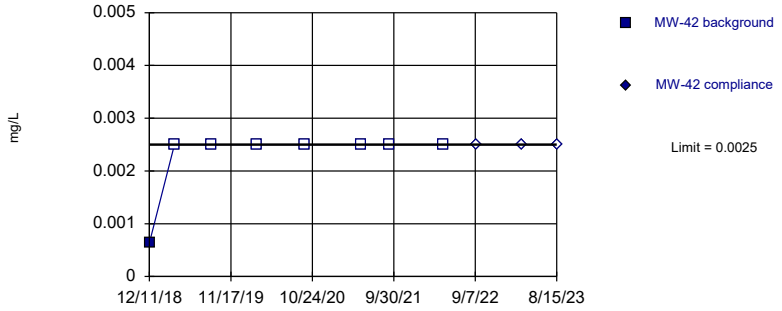
Constituent: Selenium Analysis Run 10/3/2023 12:17 PM View: 2023AWQR - IntraPL MW-42
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Vanadium Analysis Run 10/3/2023 12:17 PM View: 2023AWQR - IntraPL MW-42
Clinton County SLF Client: SCS Engineers Data: CCASW ES Sanitas HMSP

Mann-Kendall/Sen's Slope Summary Table and Graphs
Water Table Aquifer

Trend Test

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM Printed 10/2/2023, 5:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Barium (mg/L)	MW-19	0.002113	2	21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-19	-0.00000691	-1	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-19	0.00009117	7	21	No	8	25	0.01	NP
Lead (mg/L)	MW-19	0.00004558	6	21	No	8	50	0.01	NP
Nickel (mg/L)	MW-19	-0.002241	-16	-21	No	8	0	0.01	NP
Silver (mg/L)	MW-19	0	3	21	No	8	87.5	0.01	NP
Thallium (mg/L)	MW-19	0	3	21	No	8	75	0.01	NP

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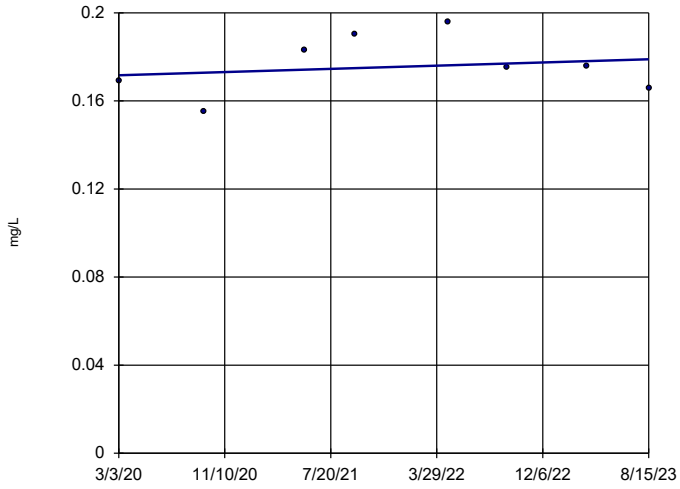
Sen's Slope Estimator

MW-19



n = 8

Slope = 0.002113 units per year.

Mann-Kendall statistic = 2 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

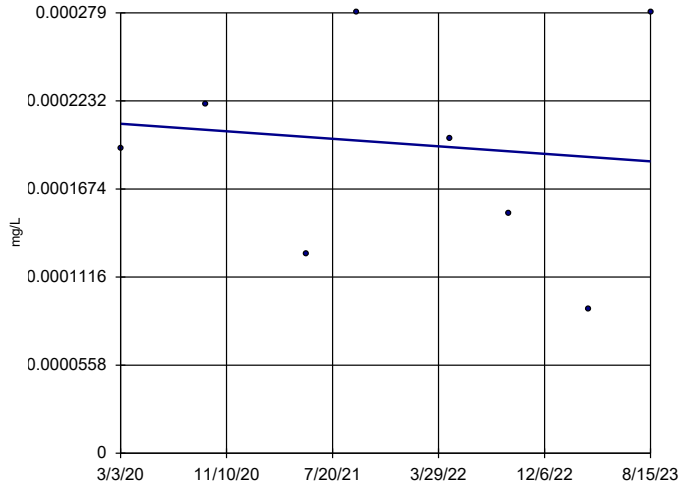
Constituent: Barium Analysis Run 10/2/2023 5:21 PM View: 2023AWQR - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-19



n = 8

Slope = -0.00000691 units per year.

Mann-Kendall statistic = -1 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

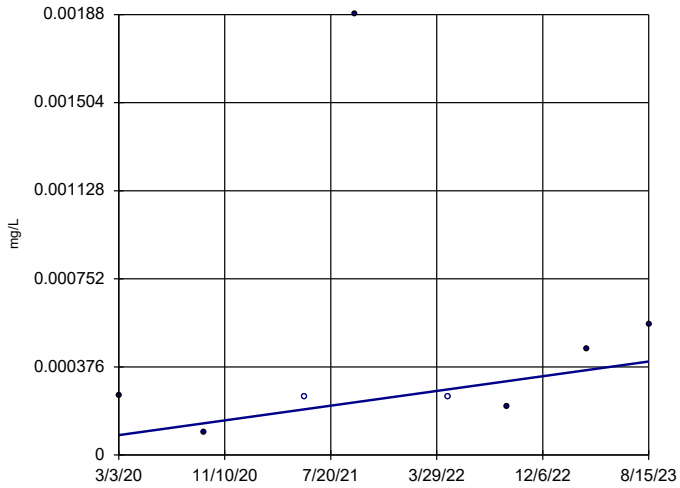
Constituent: Cadmium Analysis Run 10/2/2023 5:21 PM View: 2023AWQR - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.00009117 units per year.

Mann-Kendall statistic = 7 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

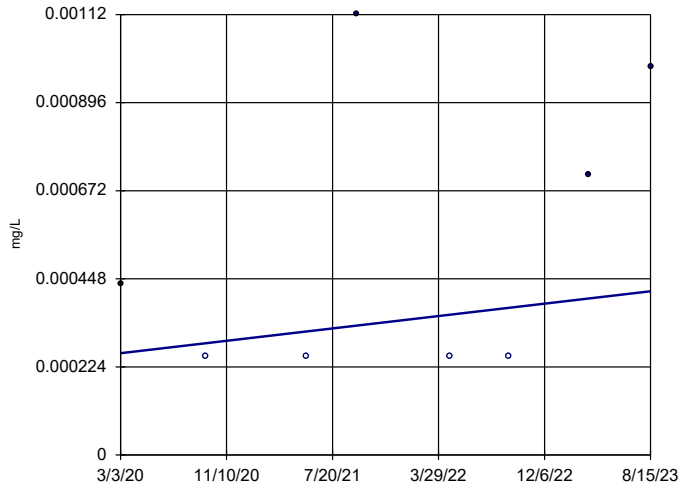
Constituent: Cobalt Analysis Run 10/2/2023 5:21 PM View: 2023AWQR - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.00004558 units per year.

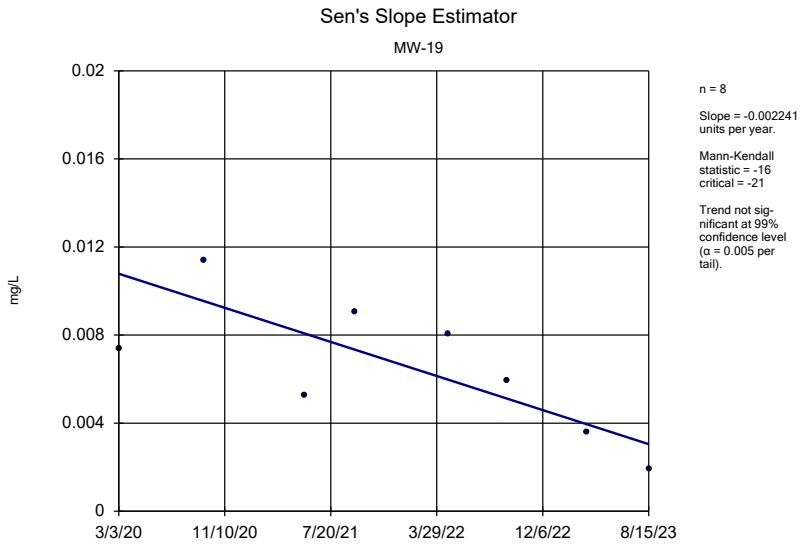
Mann-Kendall statistic = 6 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 10/2/2023 5:21 PM View: 2023AWQR - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

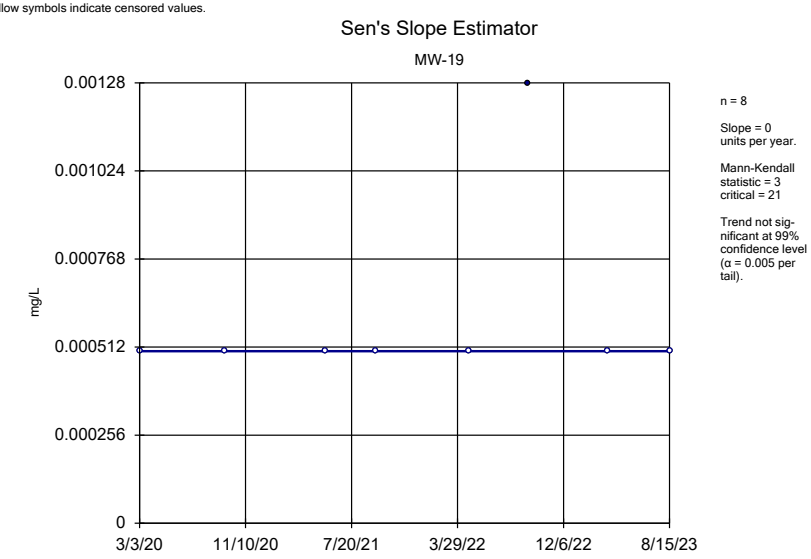
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG



Constituent: Nickel Analysis Run 10/2/2023 5:21 PM View: 2023AWQR - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

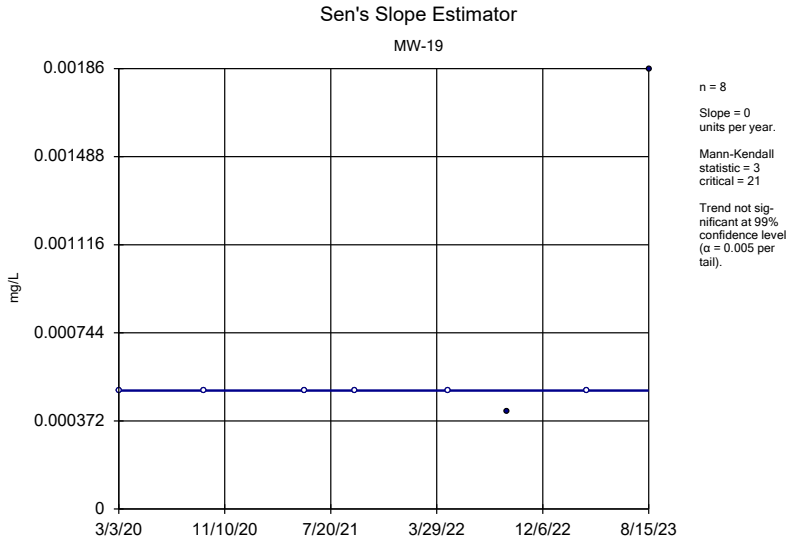
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Silver Analysis Run 10/2/2023 5:21 PM View: 2023AWQR - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 10/2/2023 5:21 PM View: 2023AWQR - Mann Kendall

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Confidence Interval Summary Table and Graphs
Water Table Aquifer

Confidence Interval

Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM Printed 10/2/2023, 5:34 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Barium (mg/L)	MW-19	0.1903	0.1622	2	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-19	0.0002644	0.0001206	0.005	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-19	0.00188	0.000099	0.0021	No	8	25	No	0.004	NP (normality)
Lead (mg/L)	MW-19	0.0009059	0.0003441	0.015	No	8	50	No	0.01	Param.
Nickel (mg/L)	MW-19	0.009808	0.003342	0.1	No	8	0	No	0.01	Param.
Silver (mg/L)	MW-19	0.00128	0.0005	0.1	No	8	87.5	No	0.004	NP (NDs)
Thallium (mg/L)	MW-19	0.00186	0.000414	0.002	No	8	75	No	0.004	NP (NDs)

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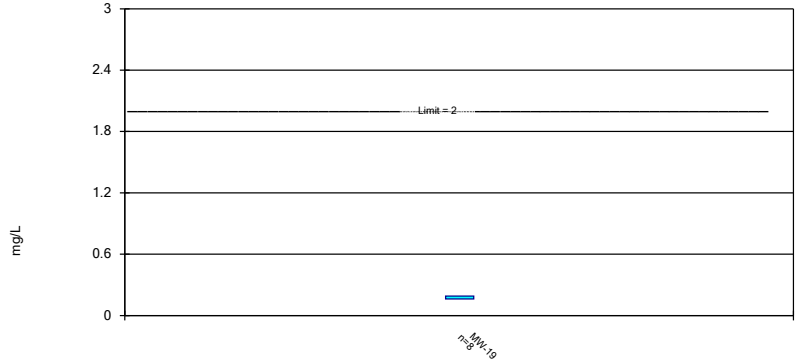
Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 10/2/2023 5:33 PM View: 2023AWQR - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

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Parametric Confidence Interval

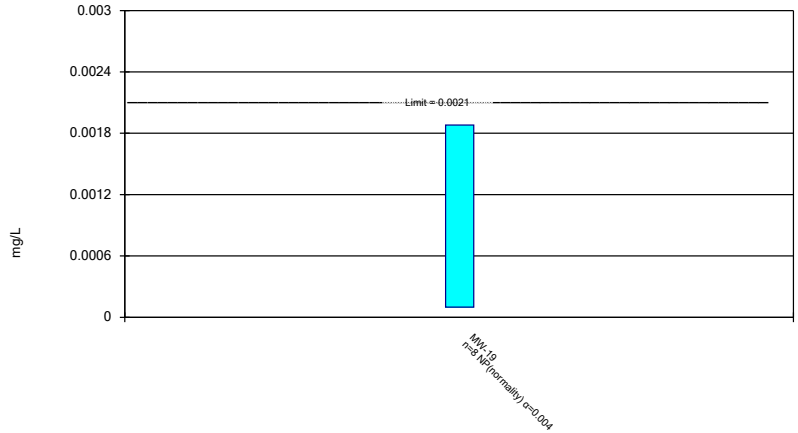
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

Constituent: Cadmium Analysis Run 10/2/2023 5:33 PM View: 2023AWQR - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 10/2/2023 5:33 PM View: 2023AWQR - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

Constituent: Lead Analysis Run 10/2/2023 5:33 PM View: 2023AWQR - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

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Parametric Confidence Interval

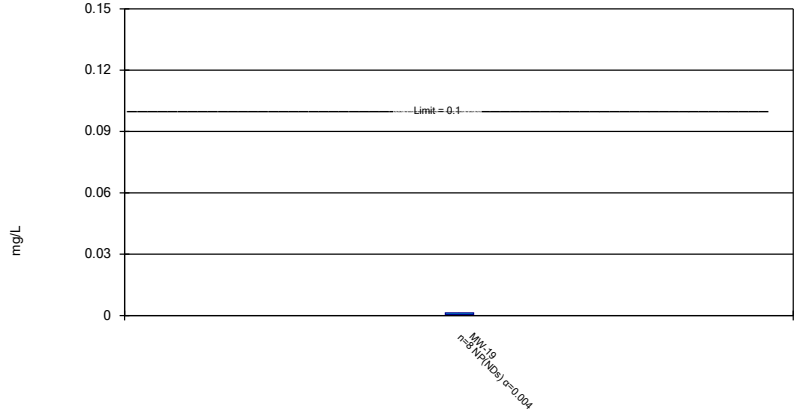
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

Constituent: Nickel Analysis Run 10/2/2023 5:33 PM View: 2023AWQR - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

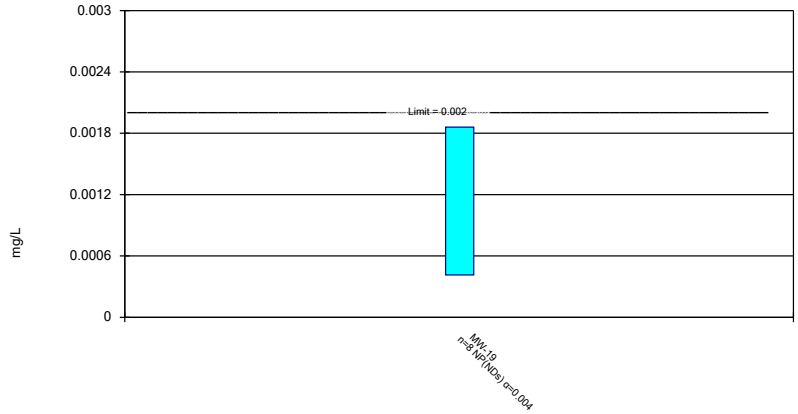


Constituent: Silver Analysis Run 10/2/2023 5:33 PM View: 2023AWQR - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

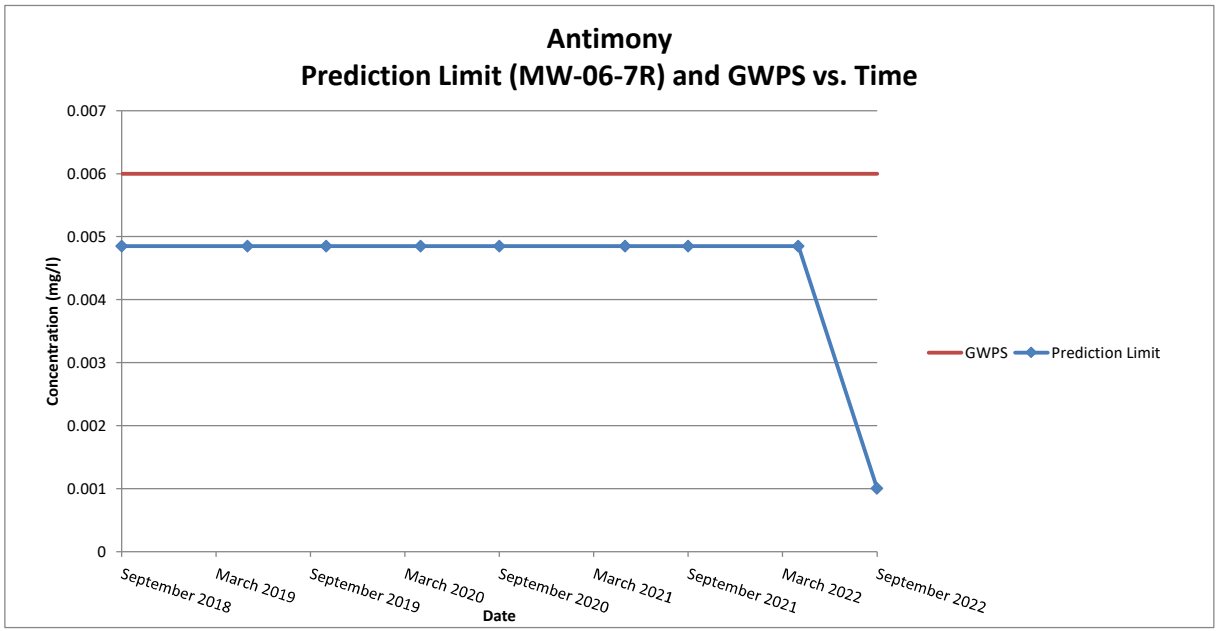
Non-Parametric Confidence Interval

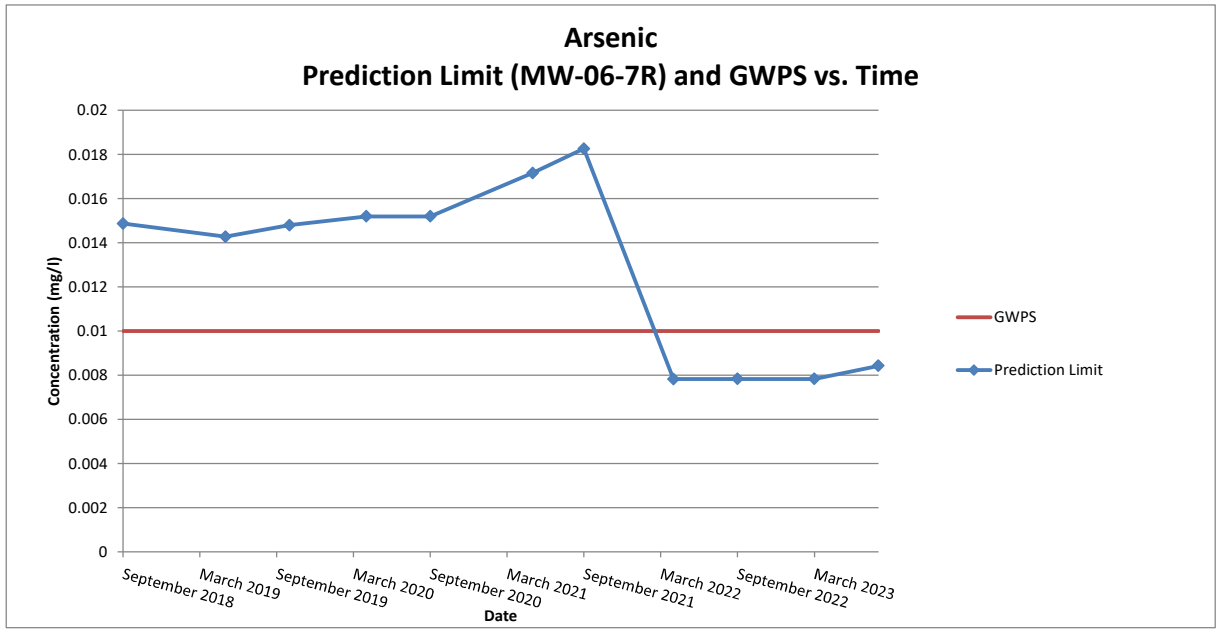
Compliance Limit is not exceeded.

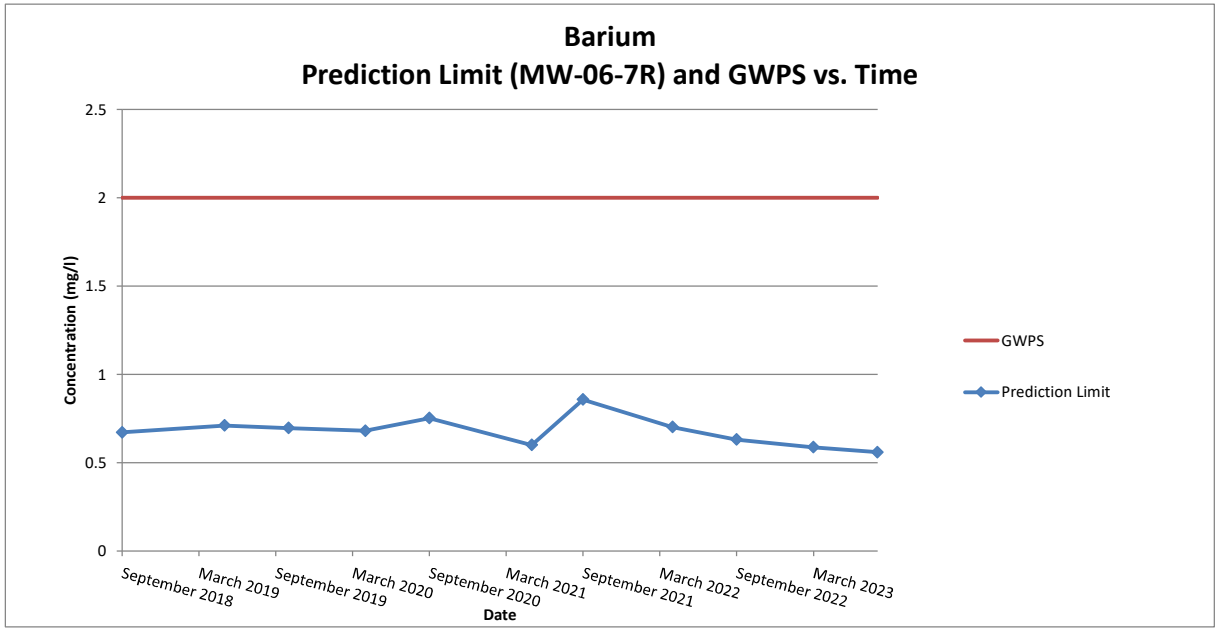


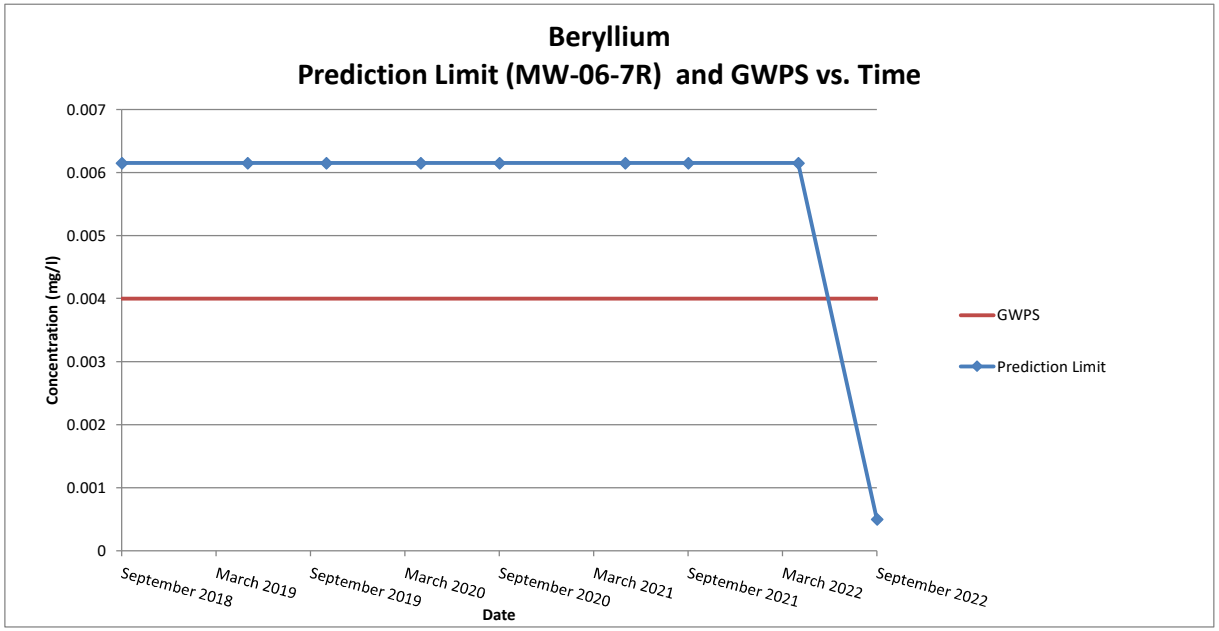
Constituent: Thallium Analysis Run 10/2/2023 5:33 PM View: 2023AWQR - Confidence Interval
Clinton County SLF Client: SCS Engineers Data: CCASW ES 2023AWQR-AM

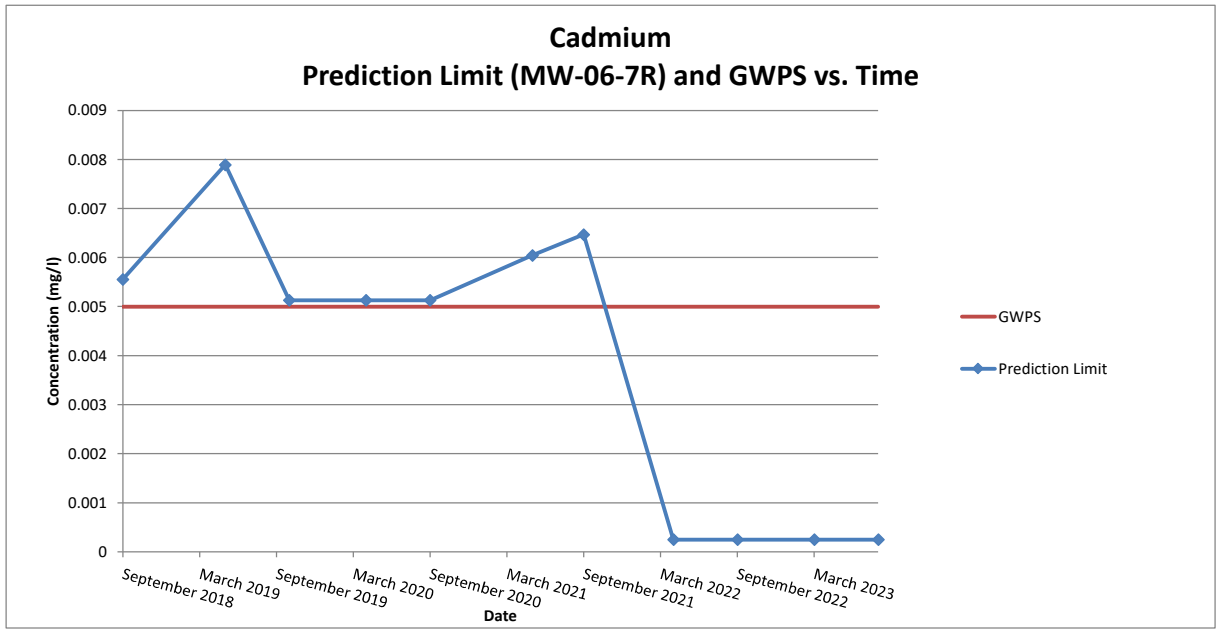
Appendix E
Standards History Graphs

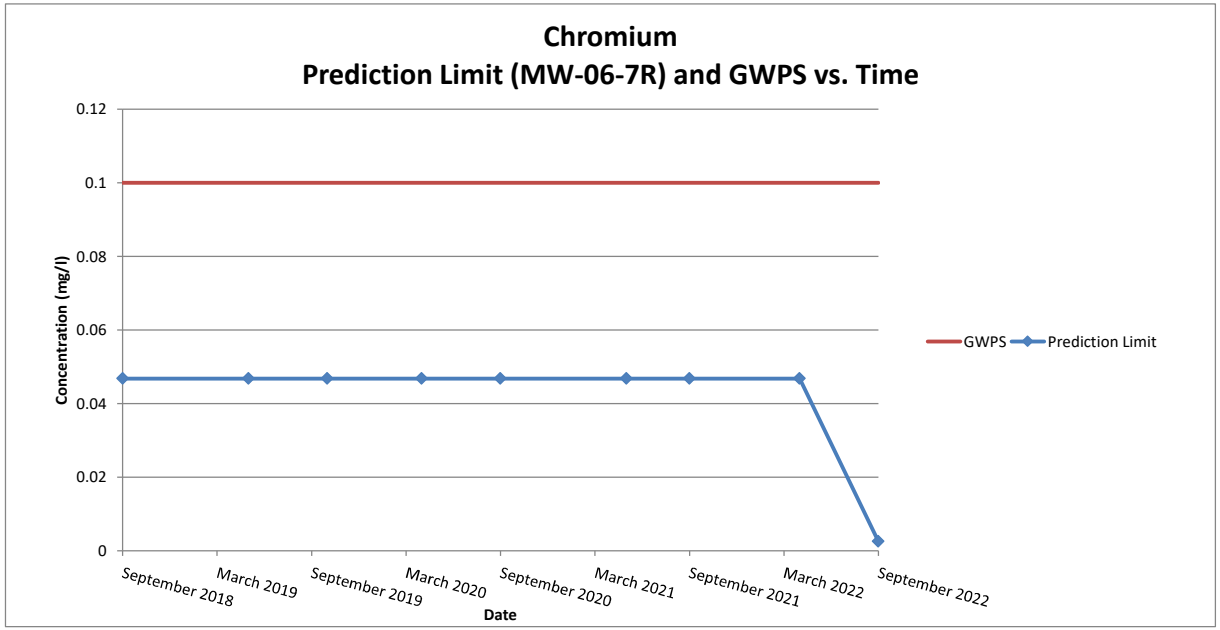

Antimony
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit

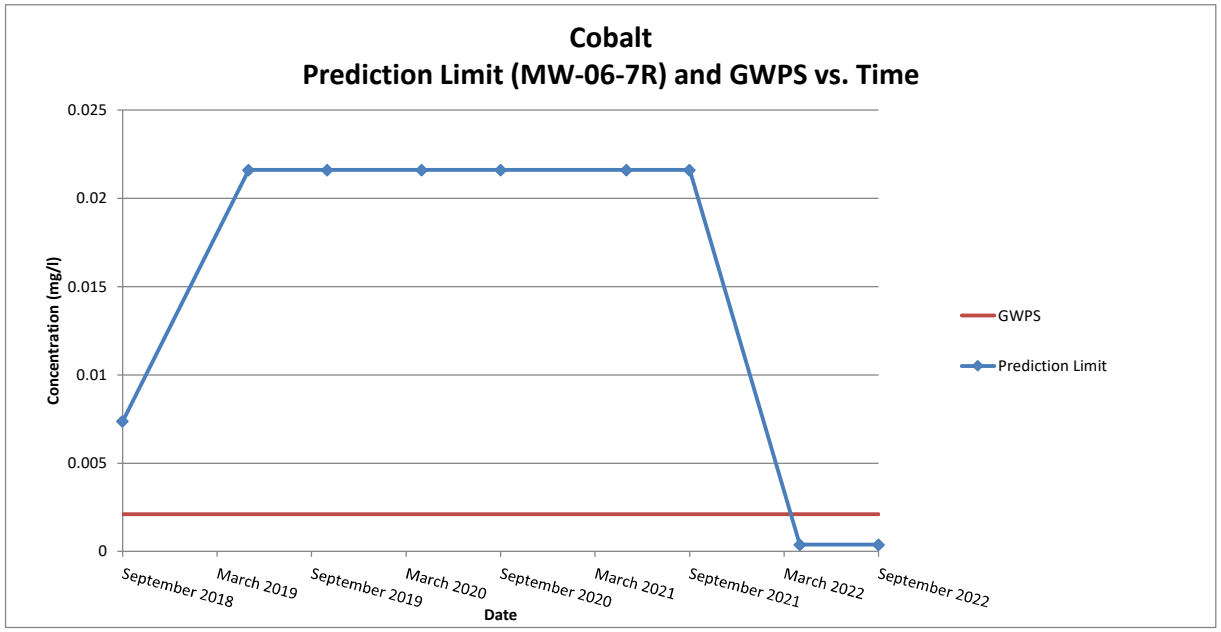

Arsenic
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
Date
GWPS
Prediction Limit

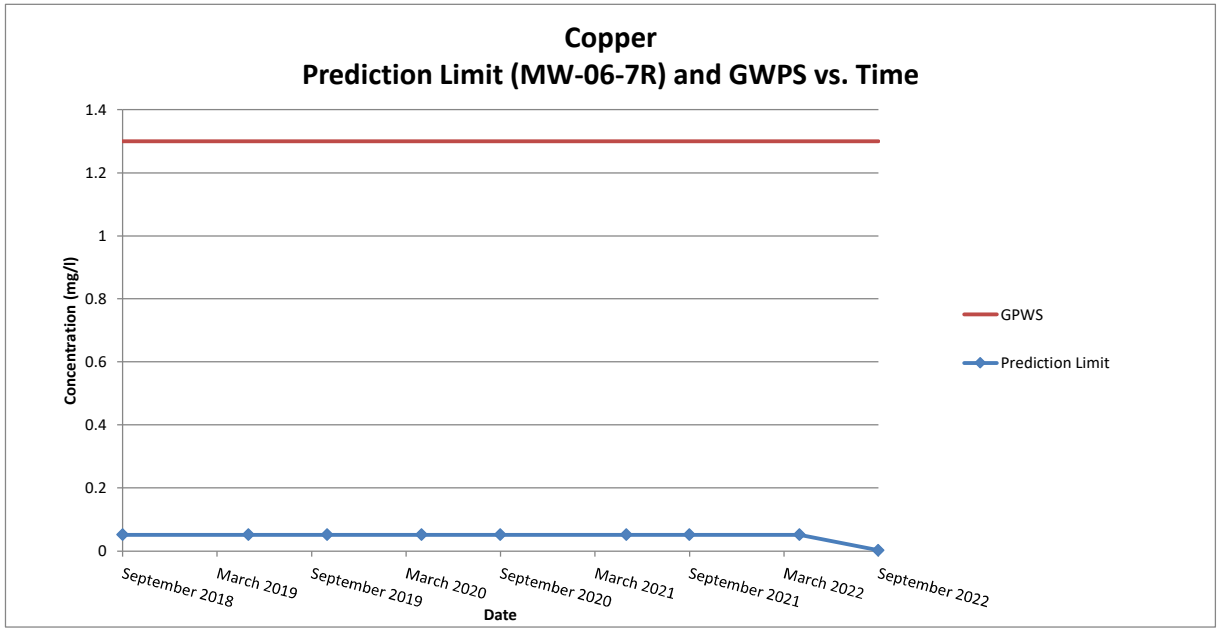

Barium
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
2.5
2
1.5
1
0.5
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
Date
GWPS
Prediction Limit

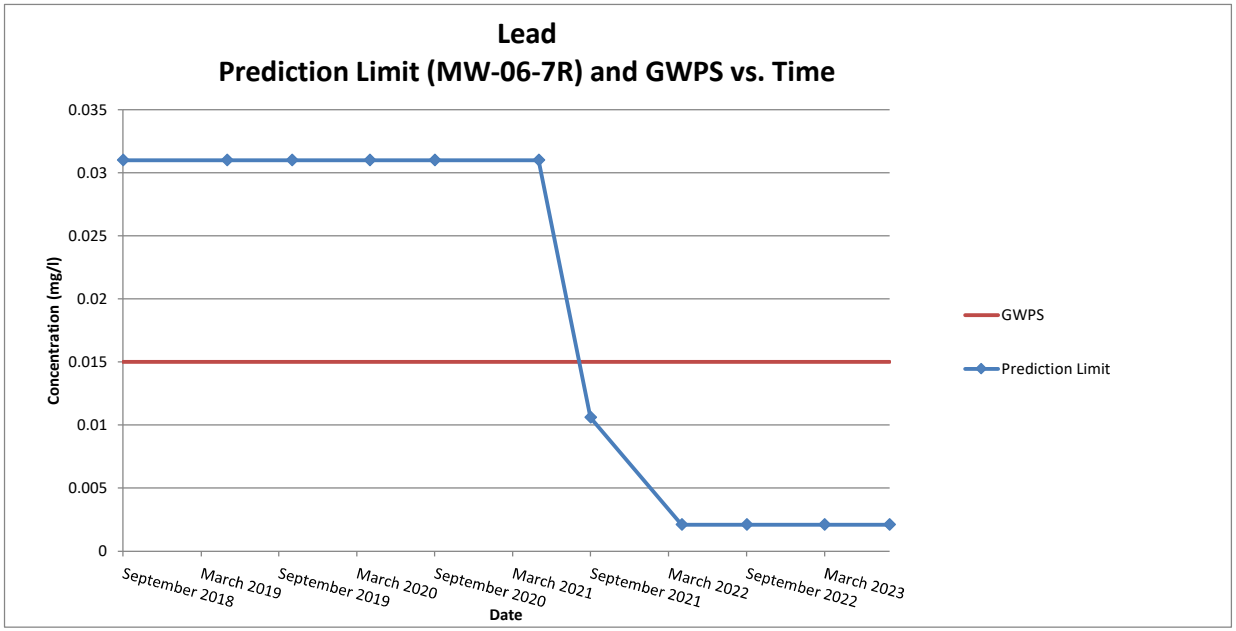

Beryllium
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit

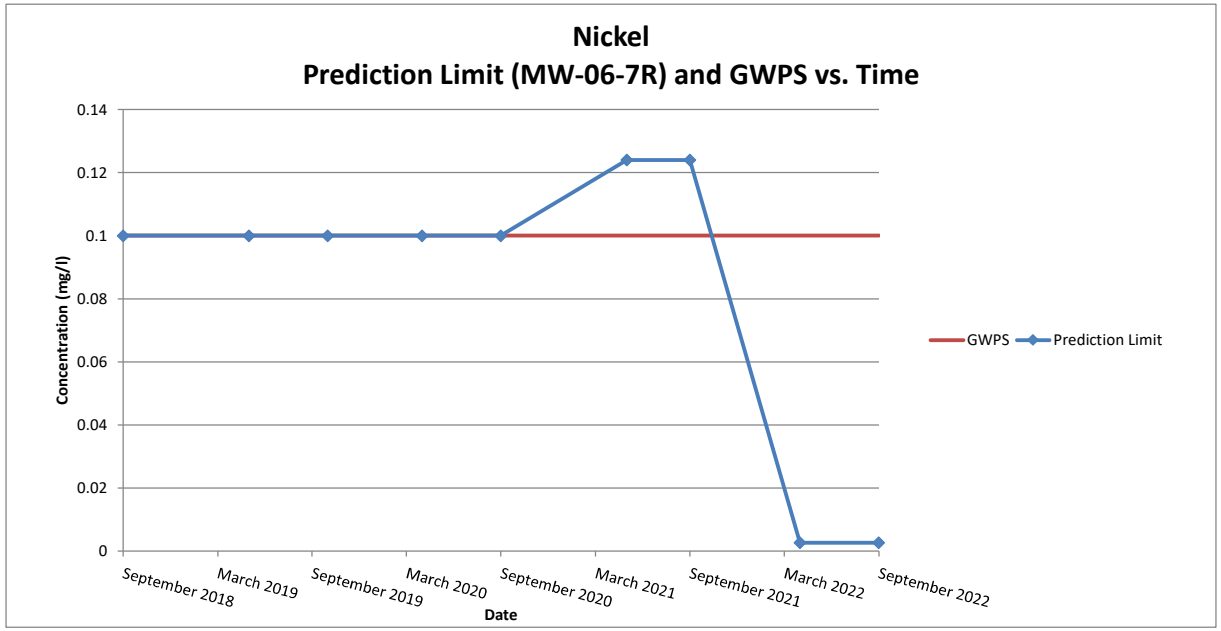

Cadmium
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
Date
GWPS
Prediction Limit

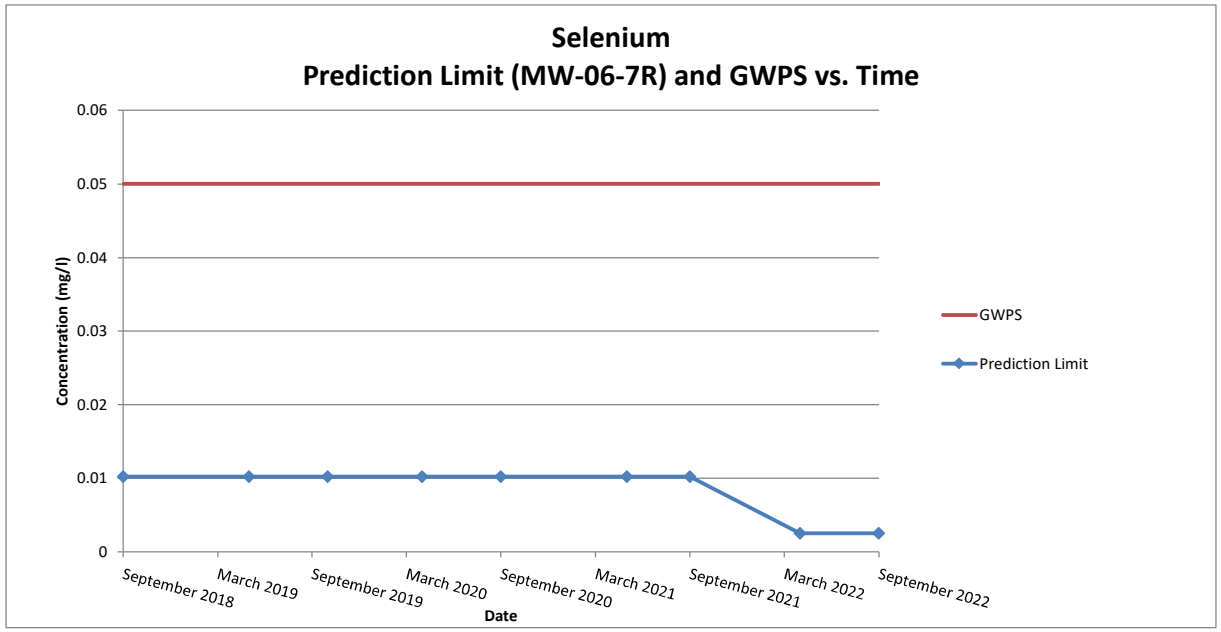

Chromium
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.12
0.1
0.08
0.06
0.04
0.02
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit

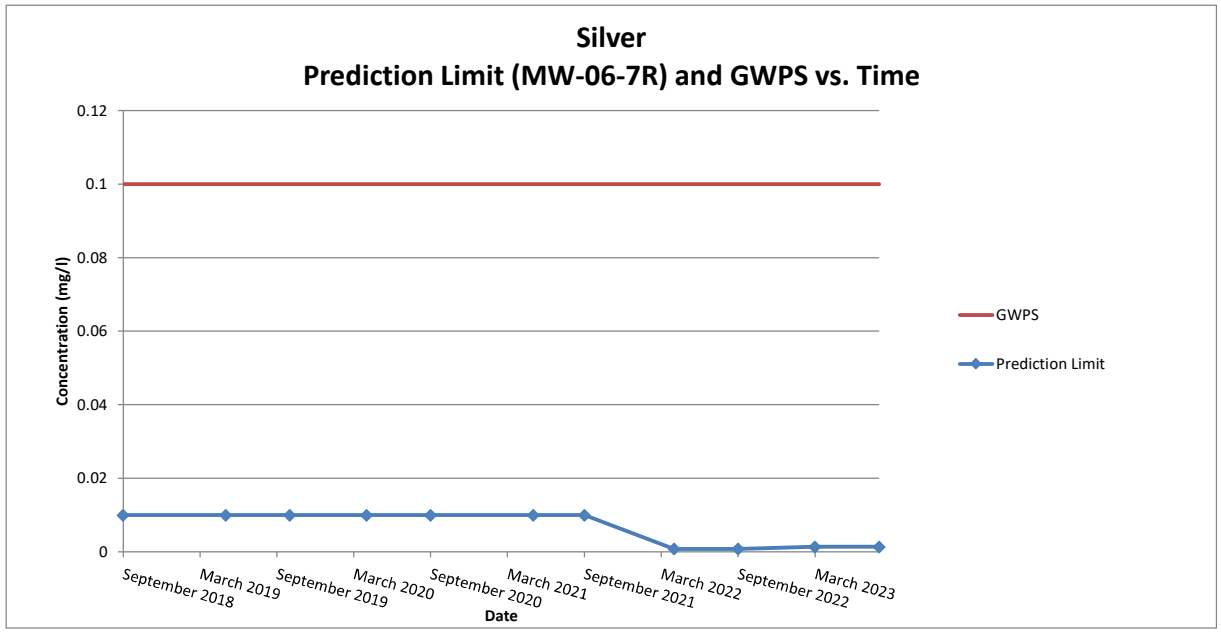

Cobalt
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.025
0.02
0.015
0.01
0.005
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit

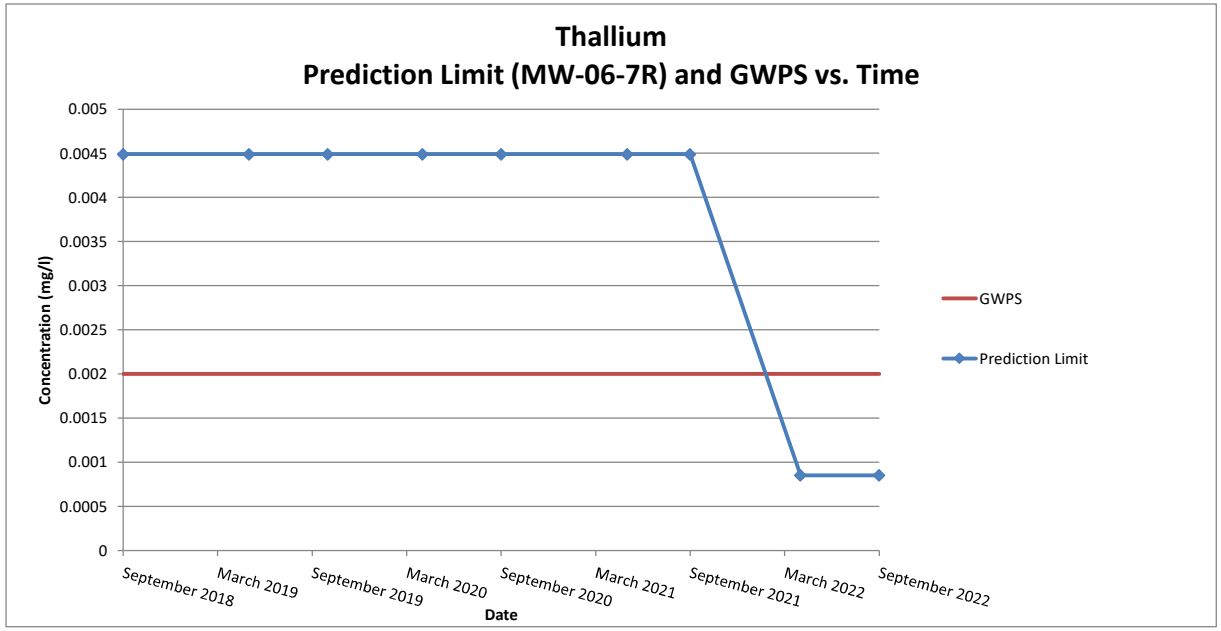

Copper
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GPWS
Prediction Limit

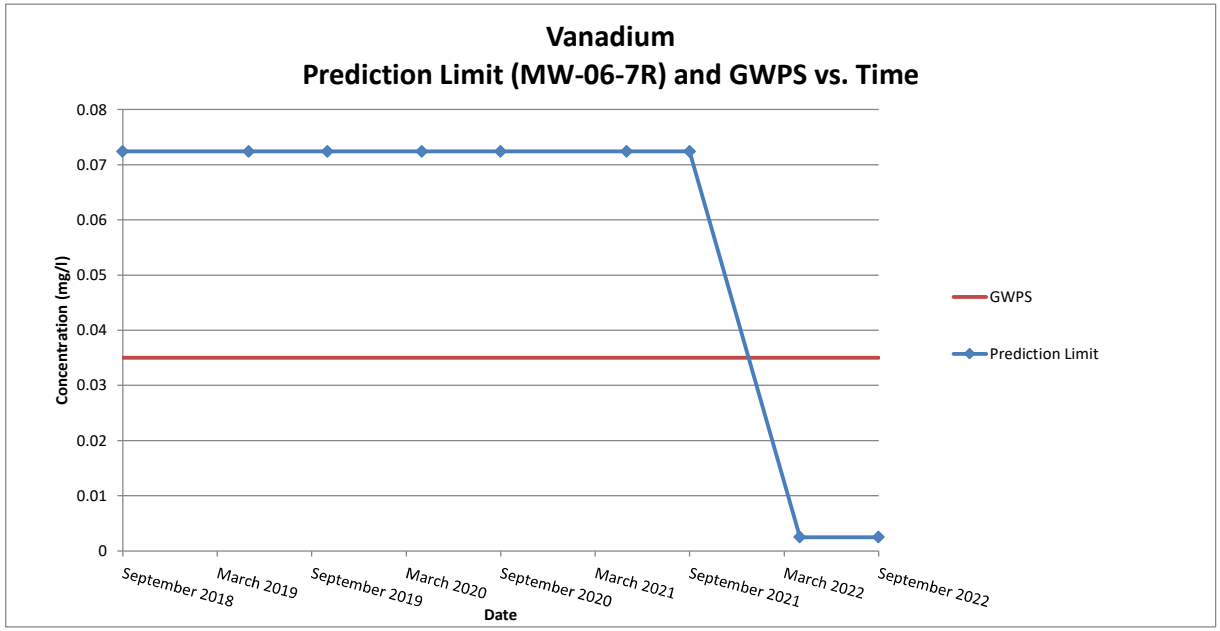

Lead
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
Date
GWPS
Prediction Limit

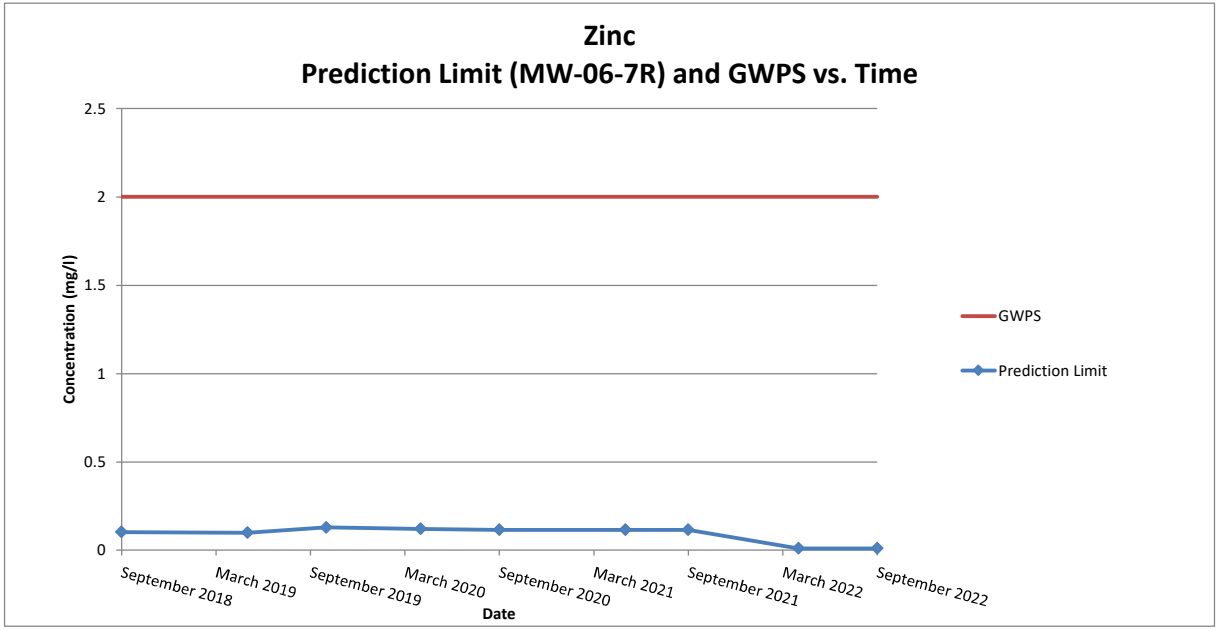

Nickel
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit


Selenium
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.06
0.05
0.04
0.03
0.02
0.01
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit


Silver
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.12
0.1
0.08
0.06
0.04
0.02
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
March 2023
Date
GWPS
Prediction Limit


Thallium
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.005
0.0045
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit


Vanadium
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit


Zinc
Prediction Limit (MW-06-7R) and GWPS vs. Time
Concentration (mg/l)
2.5
2
1.5
1
0.5
0
September 2018
March 2019
September 2019
March 2020
September 2020
March 2021
September 2021
March 2022
September 2022
Date
GWPS
Prediction Limit

Appendix F

Mann-Kendall Trend Test Summary Table and Graphs – Source

Trend Test

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM Printed 11/8/2023, 3:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1,1-Trichloroethane (ug/L)	MW-20	0	5	21	No	8	87.5	0.01	NP
1,1-Dichloroethane (ug/L)	MW-20	0.3211	17	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MW-24	-0.5619	-10	-21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MW-32	-0.04588	-9	-21	No	8	25	0.01	NP
1,1-Dichloroethane (ug/L)	MW-33	0	-1	-21	No	8	87.5	0.01	NP
1,1-Dichloroethane (ug/L)	MW-90-11	-0.06683	-2	-21	No	8	0	0.01	NP
1,2-Dichloropropane (ug/L)	**MW-24**	**-0.2885**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
1,4-Dichlorobenzene (ug/L)	MW-32	0	0	21	No	8	62.5	0.01	NP
Acetone (ug/L)	MW-20	0	-11	-21	No	8	75	0.01	NP
Acetone (ug/L)	MW-24	0	7	21	No	8	87.5	0.01	NP
Acetone (ug/L)	MW-32	0	4	21	No	8	62.5	0.01	NP
Acetone (ug/L)	MW-33	0.6163	10	21	No	8	50	0.01	NP
Acetone (ug/L)	MW-90-11	0	7	21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-20	-0.001491	-4	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-24	-0.0001049	-2	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-32	0.0007516	6	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-33	-0.0004634	-3	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-90-11	0.001041	2	21	No	8	0	0.01	NP
Barium (mg/L)	MW-20	0.05783	6	21	No	8	0	0.01	NP
Barium (mg/L)	MW-24	-0.00667	-11	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-32	-0.03413	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-33	-0.01292	-8	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-90-11	0.00942	14	21	No	8	0	0.01	NP
Benzene (ug/L)	MW-20	-0.01657	-2	-21	No	8	0	0.01	NP
Benzene (ug/L)	MW-24	0.05692	2	21	No	8	0	0.01	NP
Benzene (ug/L)	MW-32	-0.007331	0	21	No	8	0	0.01	NP
Benzene (ug/L)	MW-33	-0.0687	-8	-21	No	8	12.5	0.01	NP
Benzene (ug/L)	MW-90-11	-0.0687	-13	-21	No	8	25	0.01	NP
Beryllium (mg/L)	MW-32	0	-3	-21	No	8	75	0.01	NP
Cadmium (mg/L)	MW-20	0	8	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-33	0	11	21	No	8	87.5	0.01	NP
Cadmium (mg/L)	MW-90-11	0	8	21	No	8	62.5	0.01	NP
Chlorobenzene (ug/L)	MW-20	-0.003244	-5	-21	No	8	37.5	0.01	NP
Chlorobenzene (ug/L)	MW-32	-0.06933	-2	-21	No	8	12.5	0.01	NP
Chlorobenzene (ug/L)	MW-90-11	-0.331	-2	-21	No	8	0	0.01	NP
Chloroethane (ug/L)	MW-20	-1.4	-14	-21	No	8	0	0.01	NP
Chloroethane (ug/L)	MW-24	-0.299	-8	-21	No	8	0	0.01	NP
Chloroethane (ug/L)	MW-32	0	1	21	No	8	87.5	0.01	NP
Chloroethane (ug/L)	MW-90-11	0	-2	-21	No	8	50	0.01	NP
Chloromethane (ug/L)	MW-24	0	7	21	No	8	87.5	0.01	NP
Chloromethane (ug/L)	MW-33	0	-7	-21	No	8	87.5	0.01	NP
Chromium (mg/L)	MW-24	0	5	21	No	8	87.5	0.01	NP
Chromium (mg/L)	MW-33	0	5	21	No	8	87.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-20	0.05934	6	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-24	-0.8488	-14	-21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	**MW-32**	**-0.4467**	**-22**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	MW-90-11	-0.1326	-4	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-20	0.0009437	8	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-24	0.0001258	7	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-32	-0.001635	-6	-21	No	8	0	0.01	NP

Trend Test

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM Printed 11/8/2023, 3:23 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Cobalt (mg/L)	MW-33	-0.00125	-4	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-90-11	0.0003352	4	21	No	8	0	0.01	NP
Copper (mg/L)	MW-32	0	-1	-21	No	8	87.5	0.01	NP
Ethylbenzene (ug/L)	MW-32	0	5	21	No	8	75	0.01	NP
Lead (mg/L)	MW-20	0	5	21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-24	0	13	21	No	8	75	0.01	NP
Lead (mg/L)	MW-32	-0.0001151	-7	-21	No	8	37.5	0.01	NP
Lead (mg/L)	MW-33	0.00006742	17	21	No	8	25	0.01	NP
Lead (mg/L)	MW-90-11	0	7	21	No	8	87.5	0.01	NP
Nickel (mg/L)	MW-20	-0.001098	-6	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-24	-0.0001411	-5	-21	No	8	25	0.01	NP
Nickel (mg/L)	MW-32	-0.004312	-20	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-33	-0.001192	-4	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-90-11	0.0003471	8	21	No	8	0	0.01	NP
Selenium (mg/L)	MW-90-11	0	-7	-21	No	8	75	0.01	NP
Silver (mg/L)	MW-32	0	3	21	No	8	87.5	0.01	NP
Silver (mg/L)	MW-90-11	0	1	21	No	8	87.5	0.01	NP
Thallium (mg/L)	MW-90-11	0	5	21	No	8	75	0.01	NP
trans-1,2-Dichloroethene (ug/L)	MW-24	0.02008	5	21	No	8	25	0.01	NP
Trichloroethene (ug/L)	MW-20	0	-5	-21	No	8	87.5	0.01	NP
Trichloroethene (ug/L)	MW-24	0	-8	-21	No	8	62.5	0.01	NP
Vanadium (mg/L)	MW-32	0	9	21	No	8	75	0.01	NP
Vanadium (mg/L)	MW-33	0.0004062	13	21	No	8	25	0.01	NP
Vinyl chloride (ug/L)	MW-20	-0.05483	-9	-21	No	8	12.5	0.01	NP
Vinyl chloride (ug/L)	MW-24	-0.2984	-14	-21	No	8	12.5	0.01	NP
Vinyl chloride (ug/L)	MW-32	0	9	21	No	8	75	0.01	NP
Vinyl chloride (ug/L)	MW-90-11	0	1	21	No	8	75	0.01	NP
Xylenes, total (ug/L)	MW-32	0	-5	-21	No	8	75	0.01	NP
Xylenes, total (ug/L)	MW-33	0	5	21	No	8	87.5	0.01	NP
Zinc (mg/L)	MW-32	0	-4	-21	No	8	62.5	0.01	NP
Zinc (mg/L)	MW-33	0	-5	-21	No	8	87.5	0.01	NP

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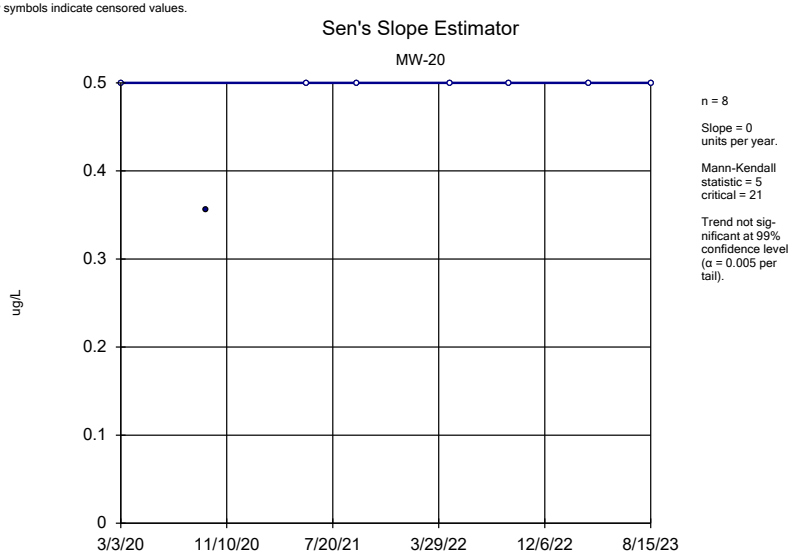
Hollow symbols indicate censored values.



Constituent: 1,1,1-Trichloroethane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - S
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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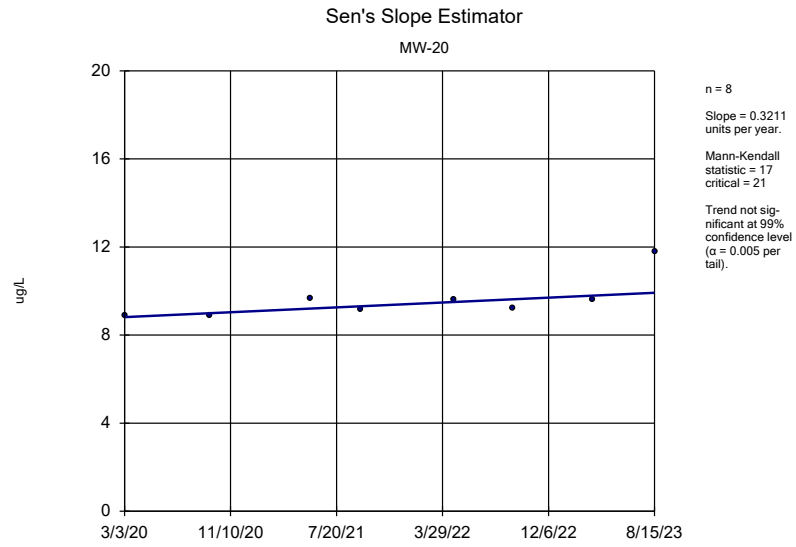

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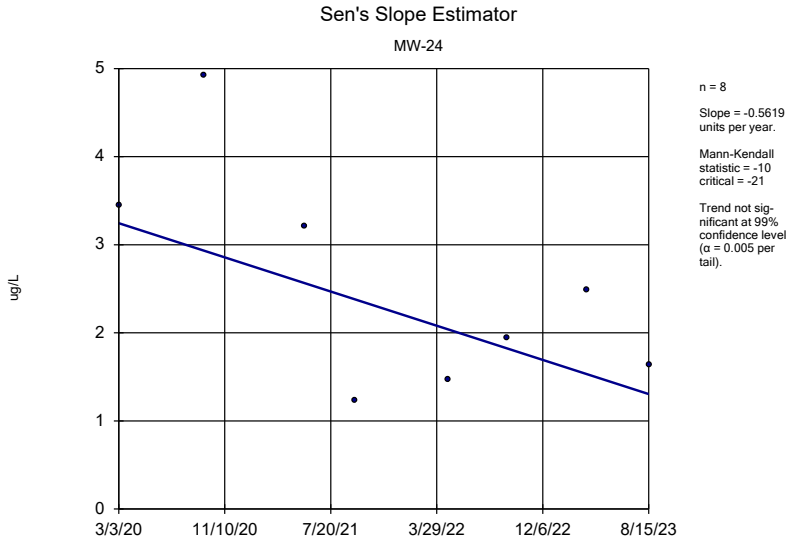

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Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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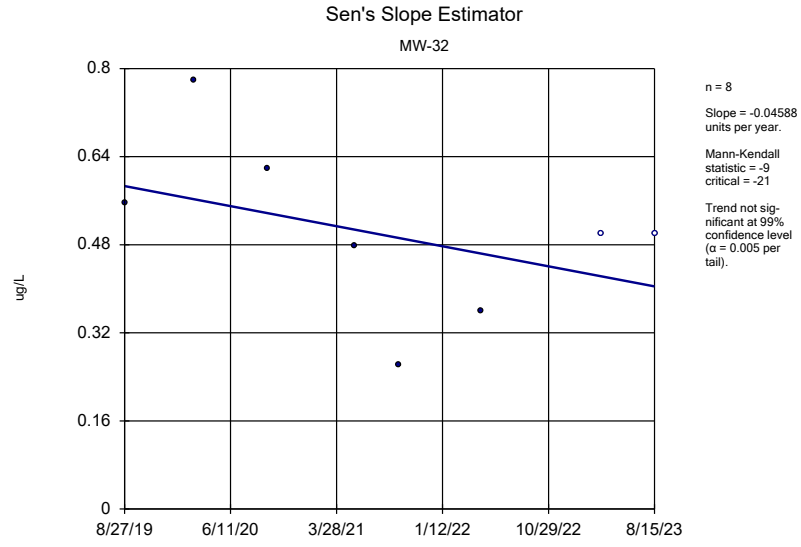
Hollow symbols indicate censored values.



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Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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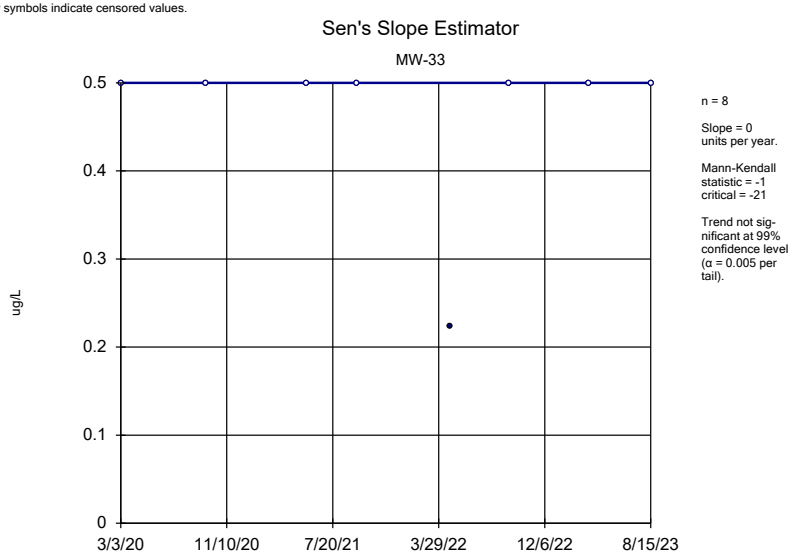

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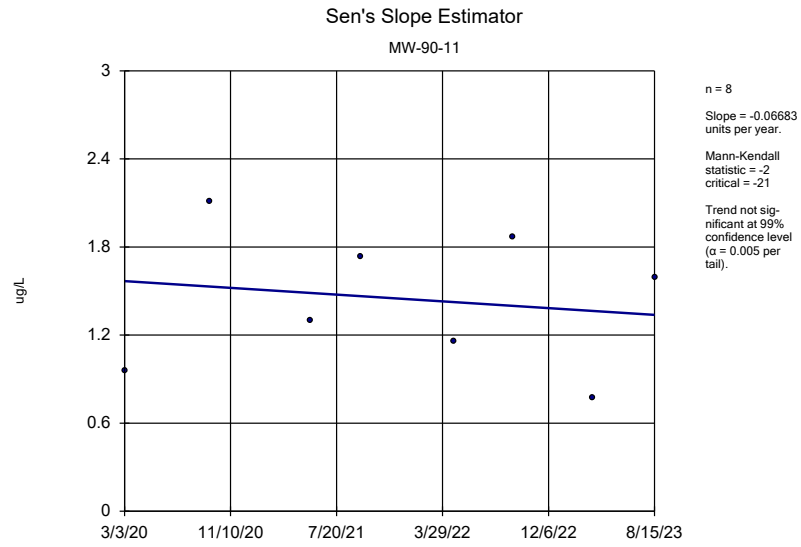
Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG



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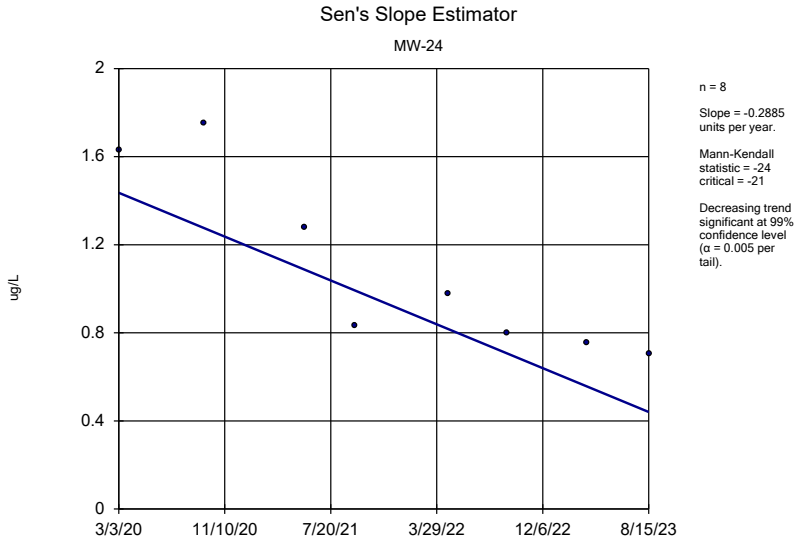
Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG



Constituent: 1,2-Dichloropropane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - So
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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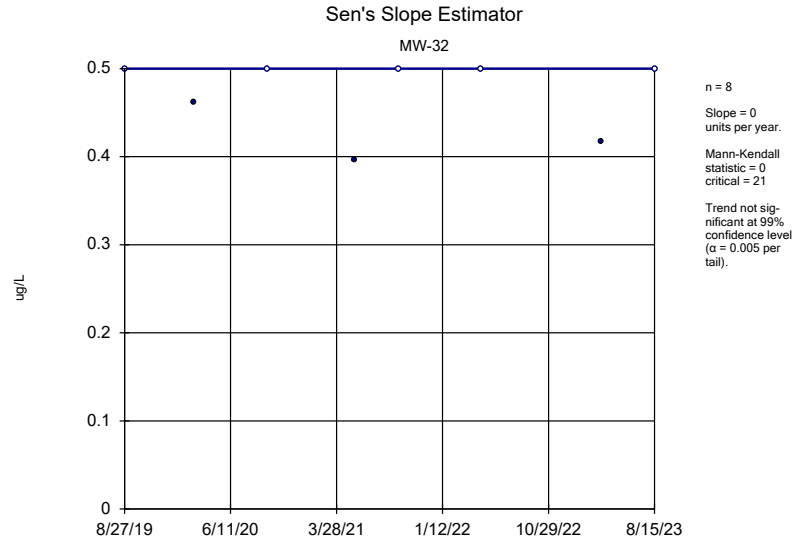
Hollow symbols indicate censored values.



Constituent: 1,4-Dichlorobenzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - S
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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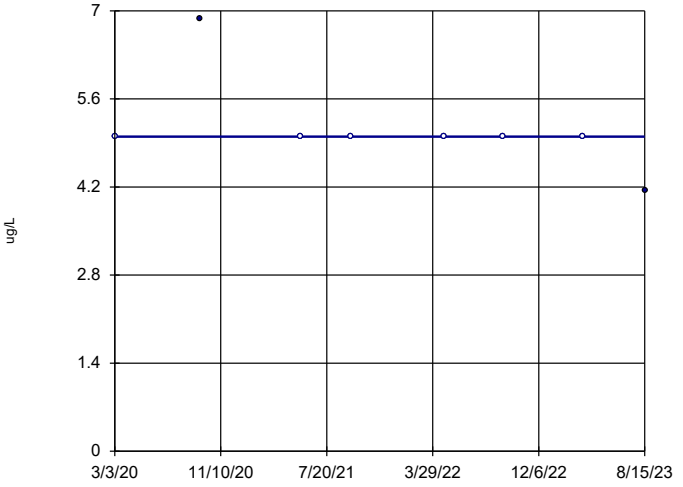
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -11
critical = -21

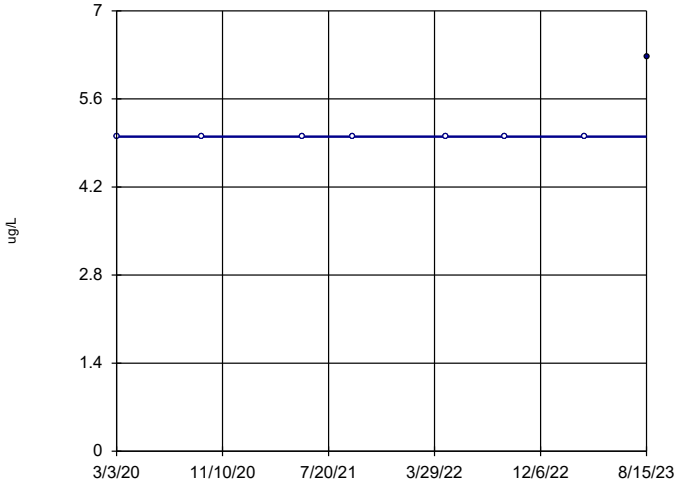
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Acetone Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-24



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 7
critical = 21

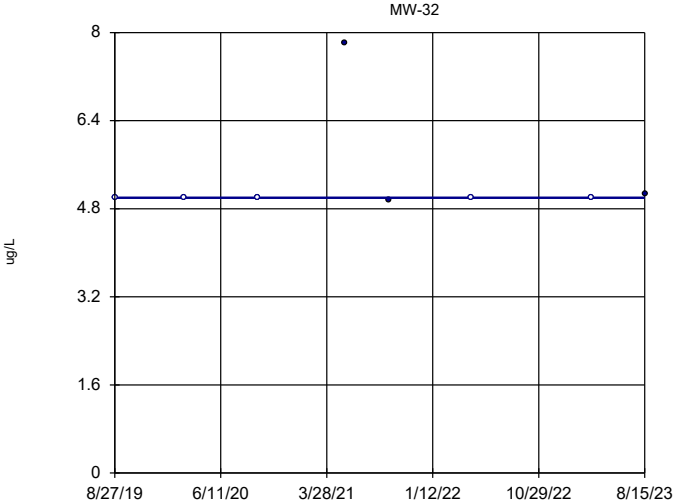
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Acetone Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 4
critical = 21

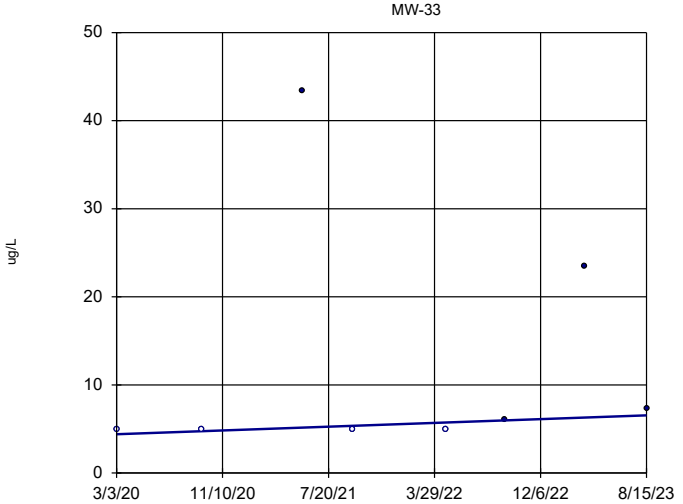
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Acetone Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-33



n = 8

Slope = 0.6163
units per year.

Mann-Kendall
statistic = 10
critical = 21

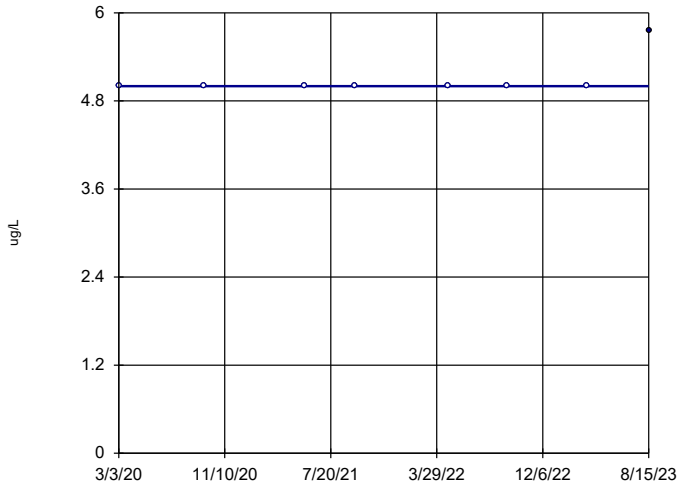
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Acetone Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 7
critical = 21

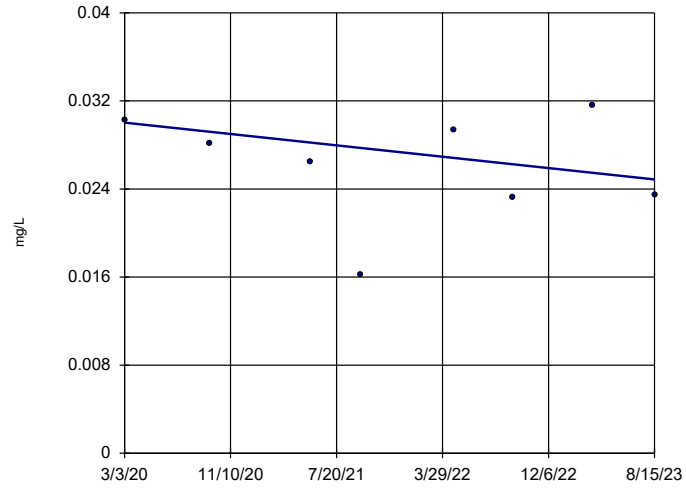
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Acetone Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-20



n = 8

Slope = -0.001491
units per year.

Mann-Kendall
statistic = -4
critical = -21

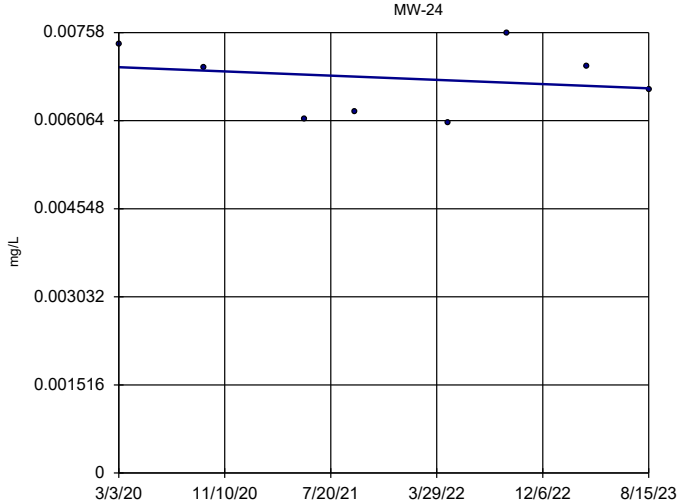
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Arsenic Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-24



n = 8

Slope = -0.0001049
units per year.

Mann-Kendall
statistic = -2
critical = -21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Arsenic Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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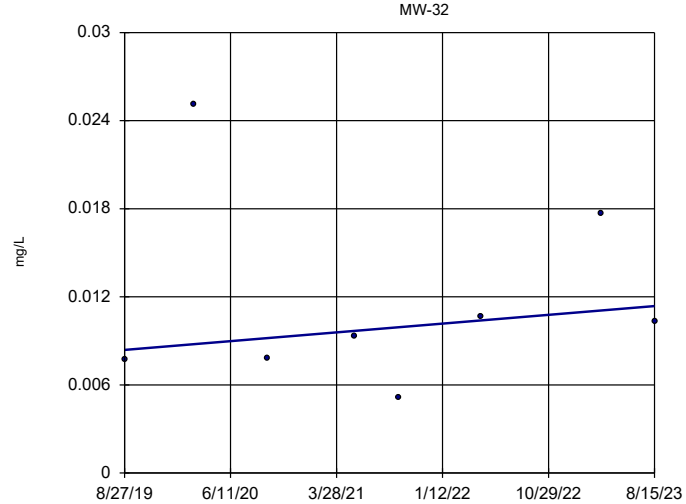
Sen's Slope Estimator

MW-32



n = 8

Slope = 0.0007516
units per year.

Mann-Kendall
statistic = 6
critical = 21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Arsenic Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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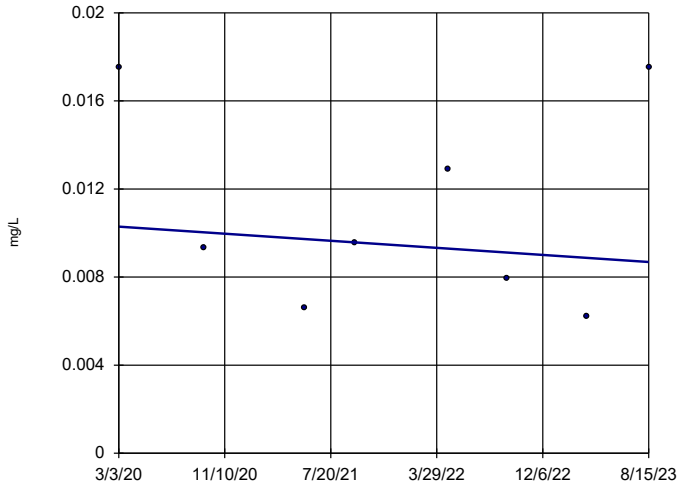
Sen's Slope Estimator

MW-33



n = 8

Slope = -0.0004634 units per year.

Mann-Kendall statistic = -3 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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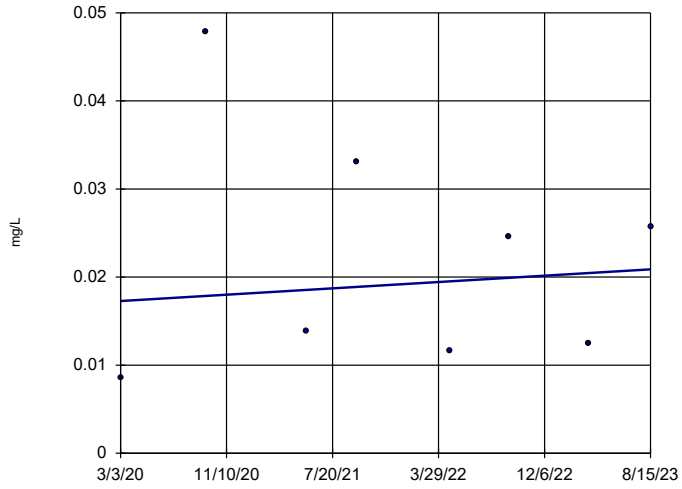
Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0.001041 units per year.

Mann-Kendall statistic = 2 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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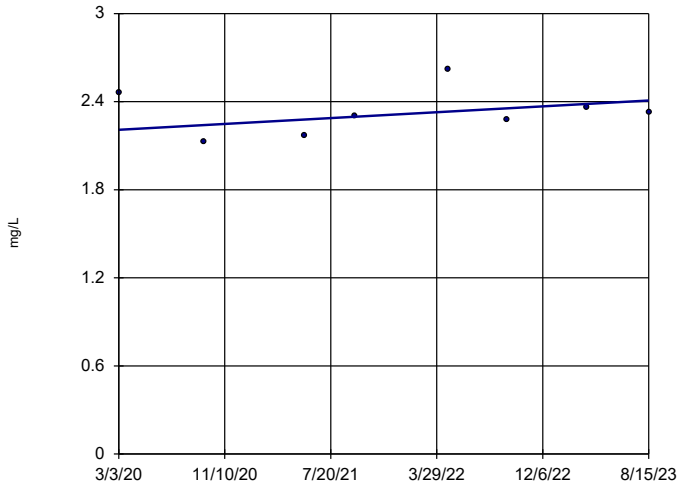
Sen's Slope Estimator

MW-20



n = 8

Slope = 0.05783 units per year.

Mann-Kendall statistic = 6 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

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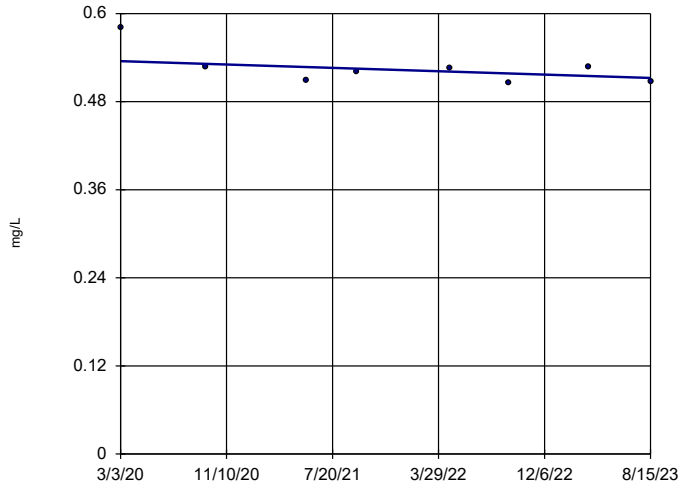
Sen's Slope Estimator

MW-24



n = 8

Slope = -0.00667 units per year.

Mann-Kendall statistic = -11 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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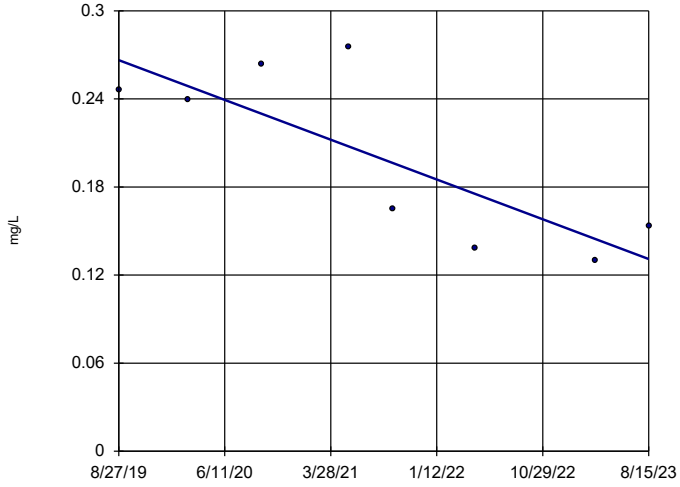
Sen's Slope Estimator

MW-32



n = 8

Slope = -0.03413 units per year.

Mann-Kendall statistic = -14 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

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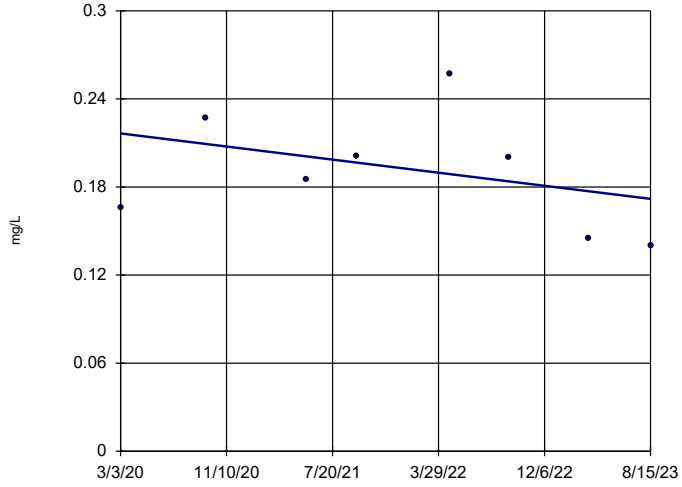
Sen's Slope Estimator

MW-33



n = 8

Slope = -0.01292 units per year.

Mann-Kendall statistic = -8 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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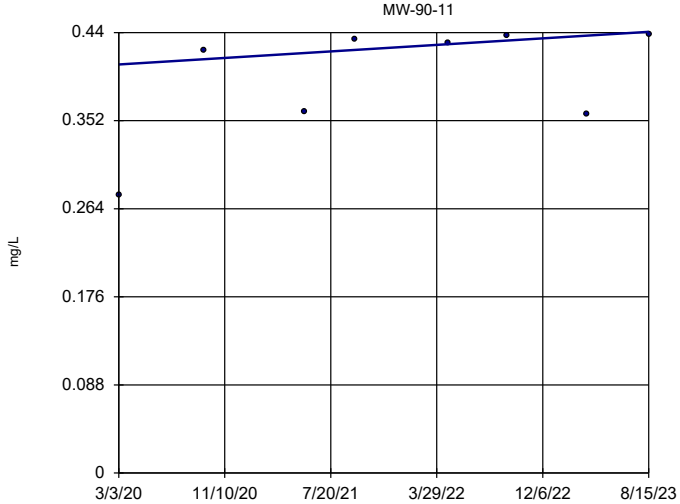
Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0.00942 units per year.

Mann-Kendall statistic = 14 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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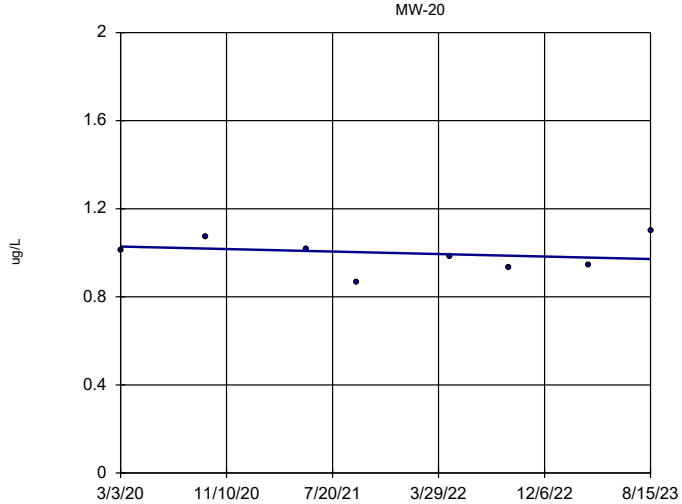
Sen's Slope Estimator

MW-20



n = 8

Slope = -0.01657 units per year.

Mann-Kendall statistic = -2 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Benzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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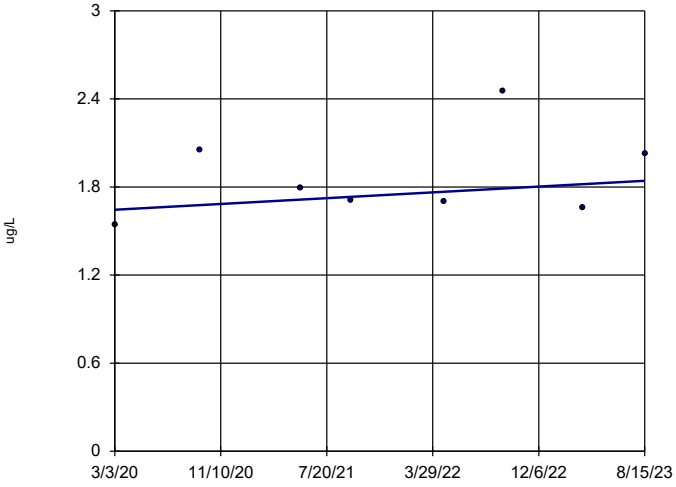
Sen's Slope Estimator

MW-24



n = 8

Slope = 0.05692 units per year.

Mann-Kendall statistic = 2 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Benzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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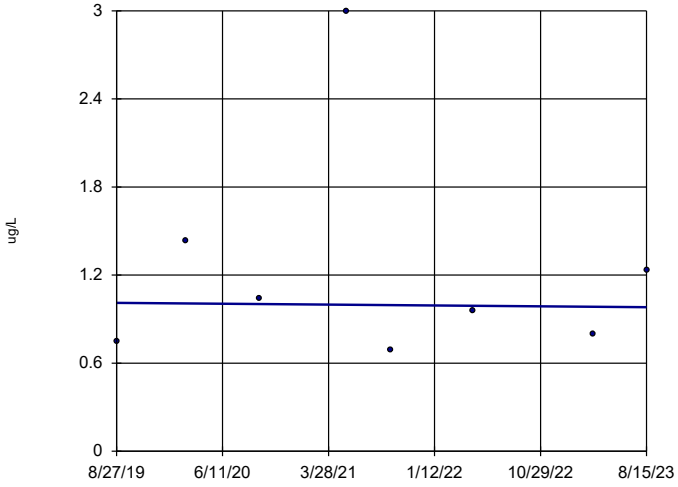
Sen's Slope Estimator

MW-32



n = 8

Slope = -0.007331 units per year.

Mann-Kendall statistic = 0 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Benzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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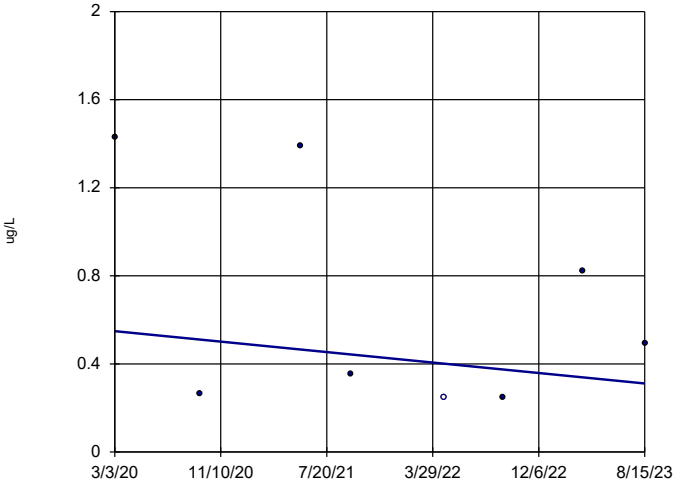
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-33



n = 8

Slope = -0.0687 units per year.

Mann-Kendall statistic = -8 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Benzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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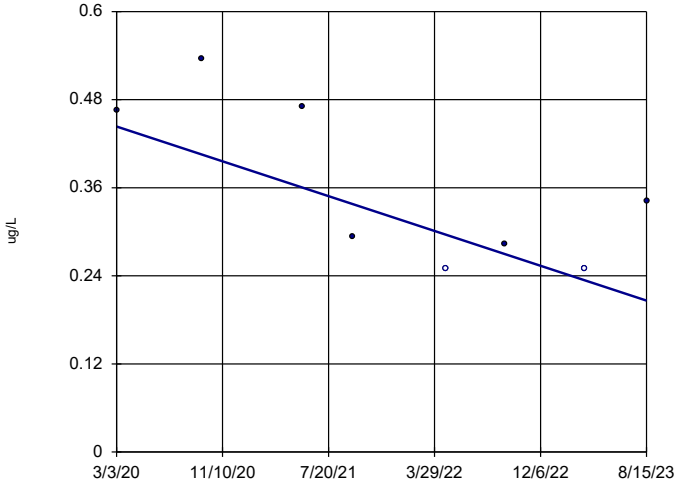
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-90-11



n = 8

Slope = -0.0687 units per year.

Mann-Kendall statistic = -13 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Benzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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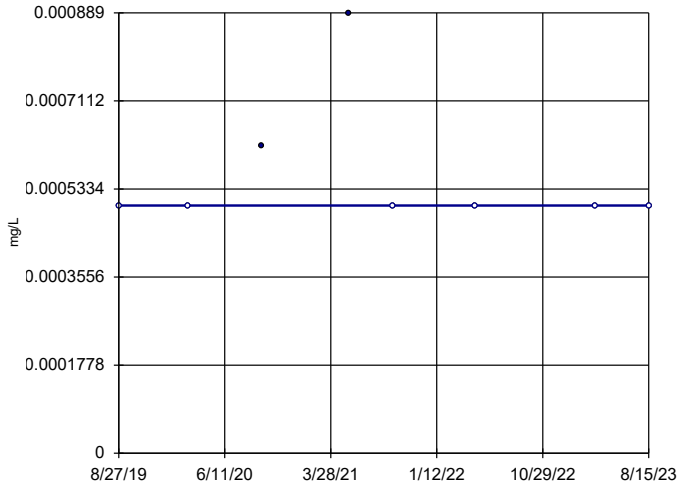
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -3
critical = -21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Beryllium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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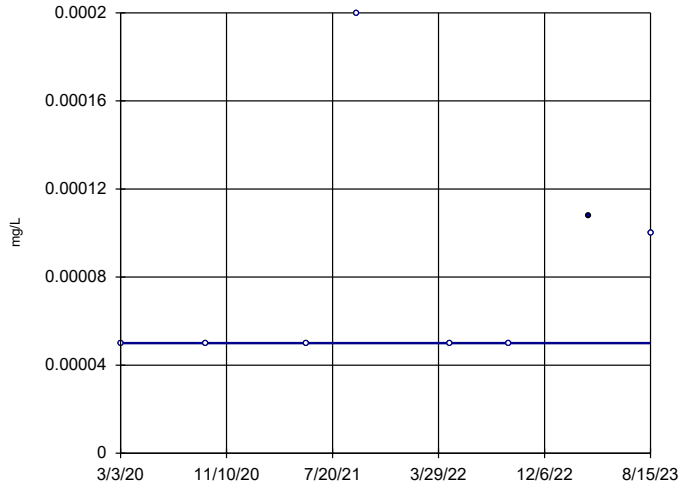
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 8
critical = 21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Cadmium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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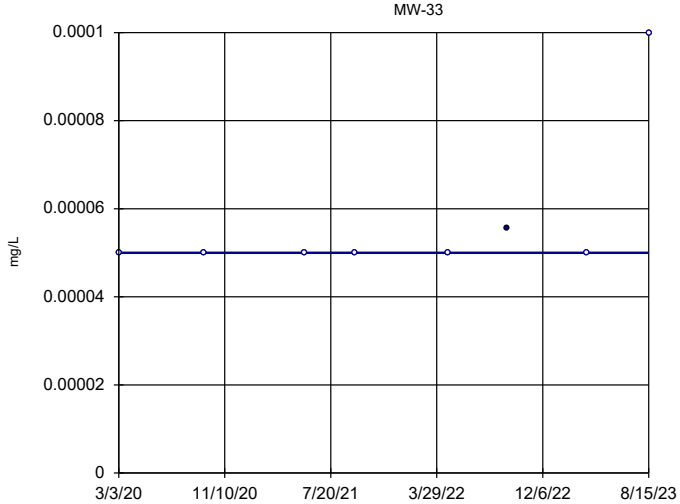
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-33



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 11
critical = 21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Cadmium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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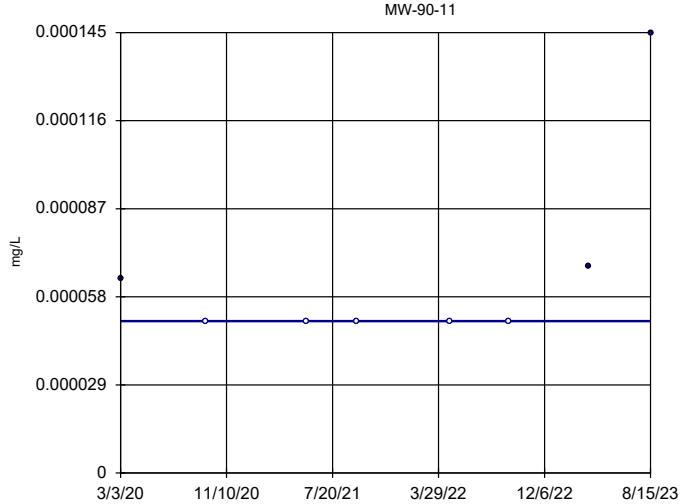
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 8
critical = 21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Cadmium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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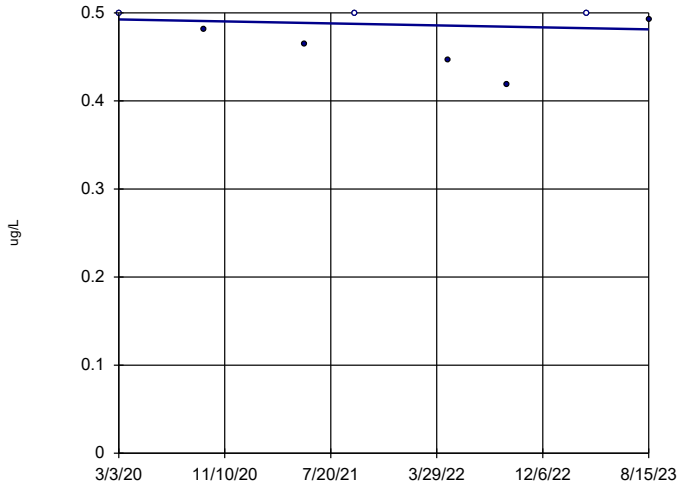
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = -0.003244 units per year.

Mann-Kendall statistic = -5
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chlorobenzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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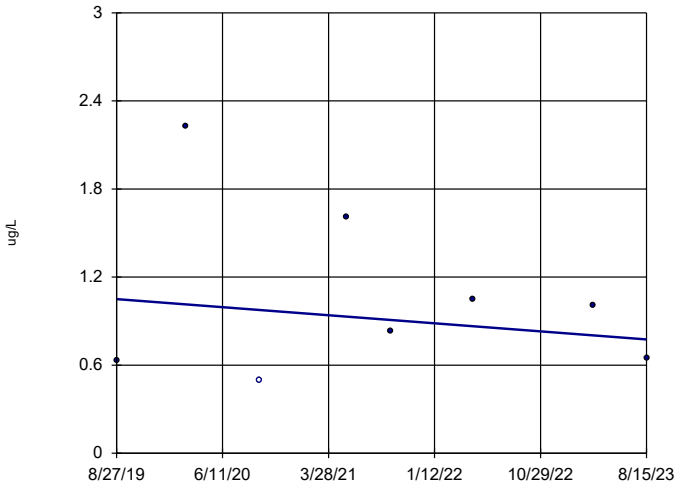
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

Slope = -0.06933 units per year.

Mann-Kendall statistic = -2
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chlorobenzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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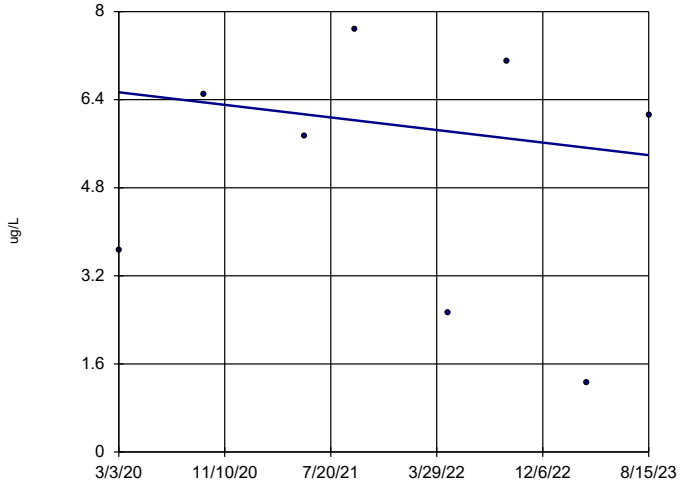
Sen's Slope Estimator

MW-90-11



n = 8

Slope = -0.331 units per year.

Mann-Kendall statistic = -2
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chlorobenzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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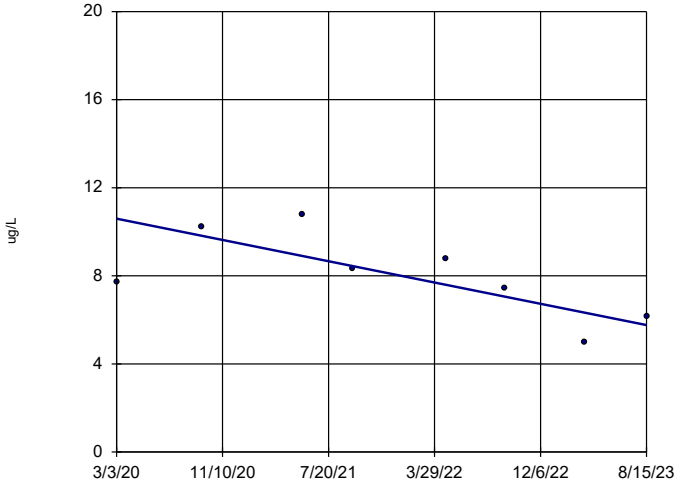
Sen's Slope Estimator

MW-20



n = 8

Slope = -1.4 units per year.

Mann-Kendall statistic = -14
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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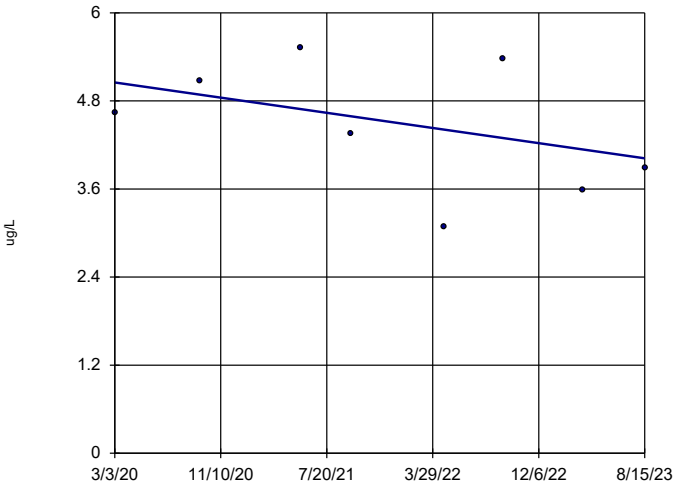
Sen's Slope Estimator

MW-24



n = 8

Slope = -0.299 units per year.

Mann-Kendall statistic = -8 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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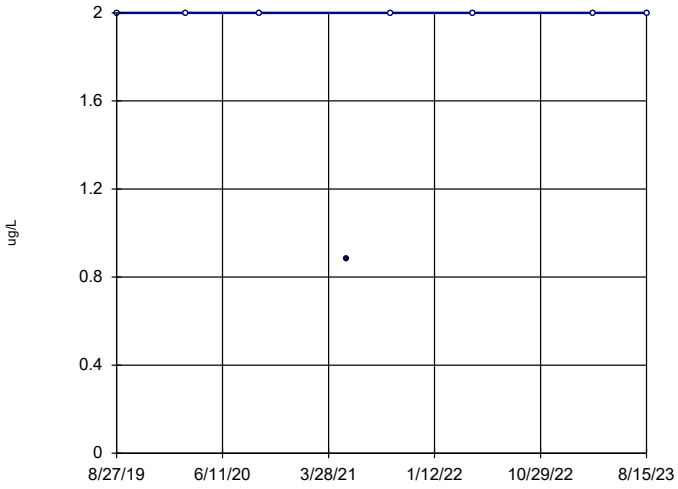
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 1 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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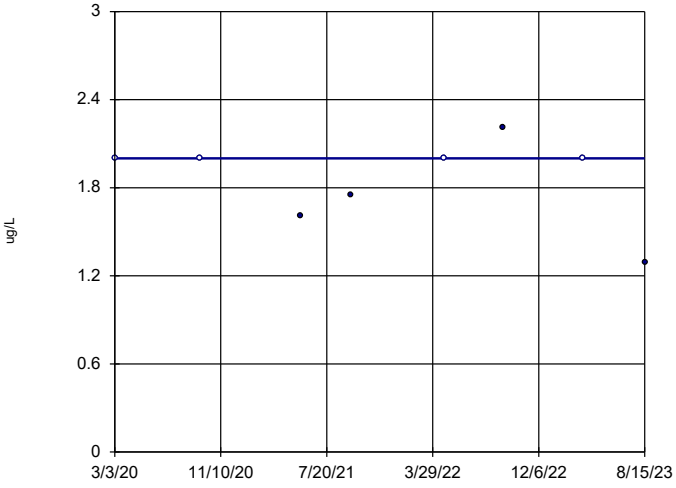
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -2 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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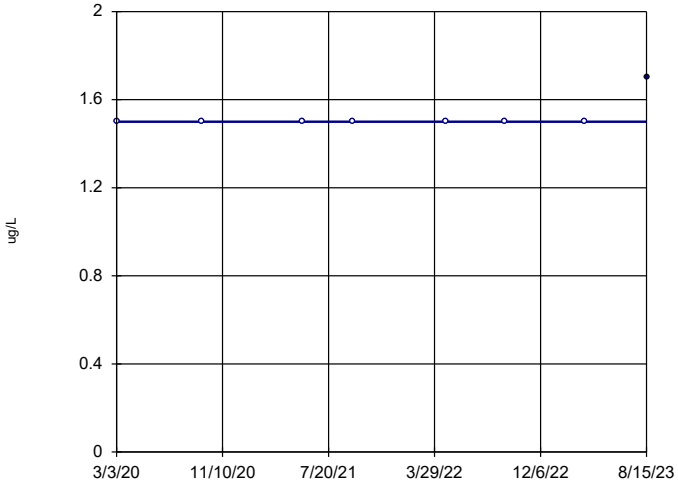
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-24



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 7 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloromethane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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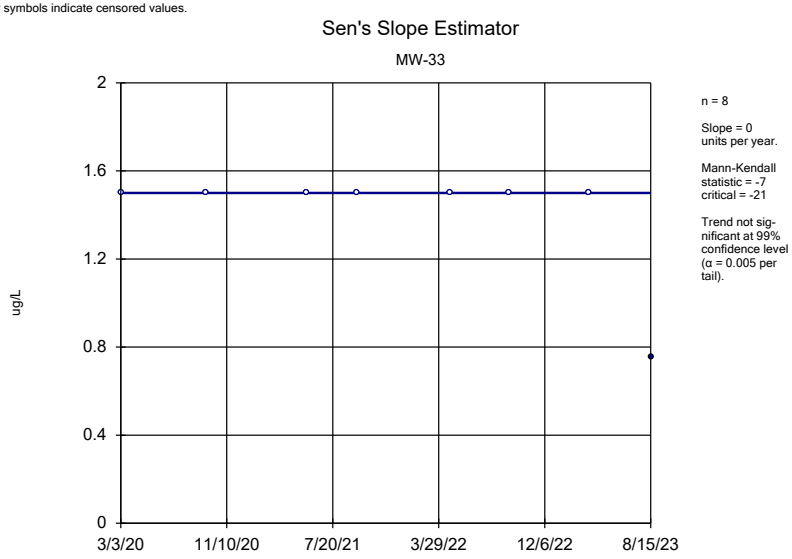
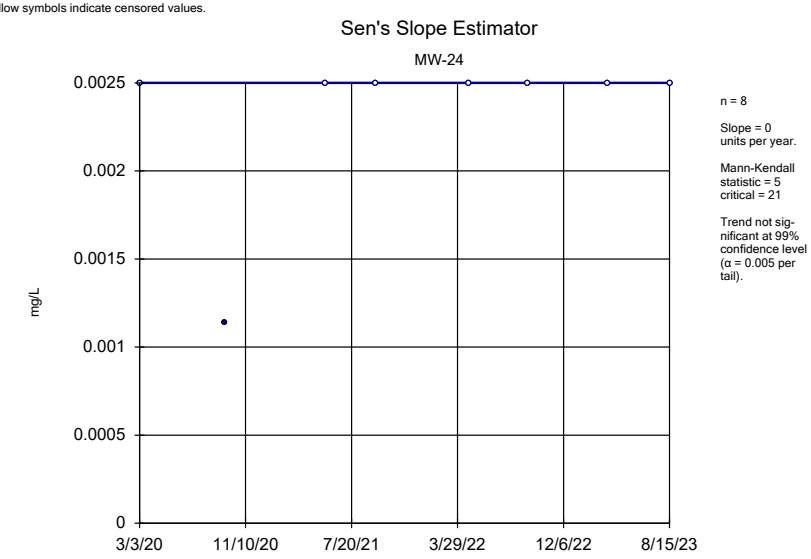
Hollow symbols indicate censored values.



Constituent: Chloromethane Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Chromium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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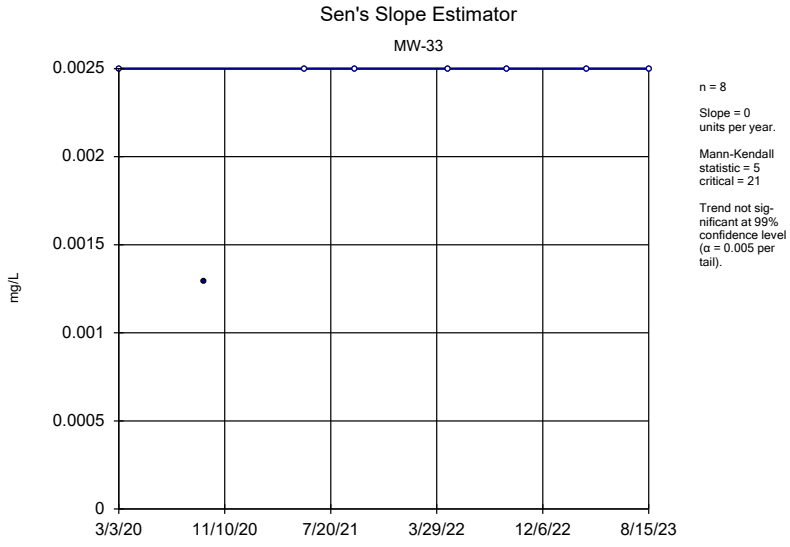
Hollow symbols indicate censored values.



Constituent: Chromium Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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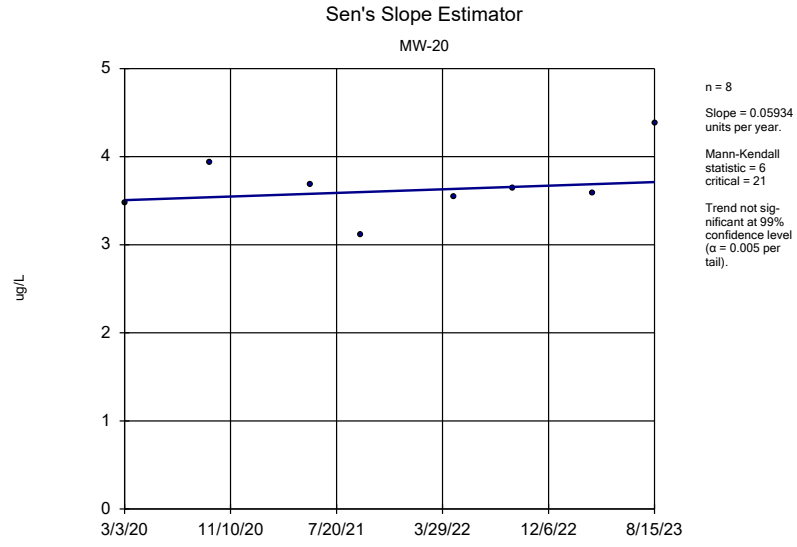
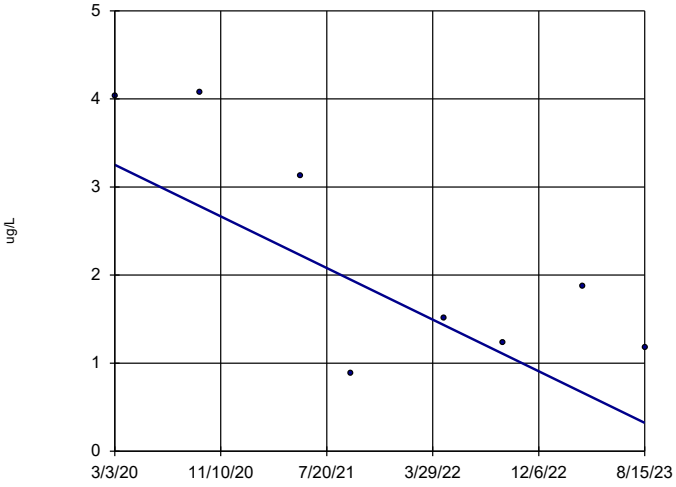


Constituent: cis-1,2-Dichloroethene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall -
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-24



n = 8

Slope = -0.8488 units per year.

Mann-Kendall statistic = -14 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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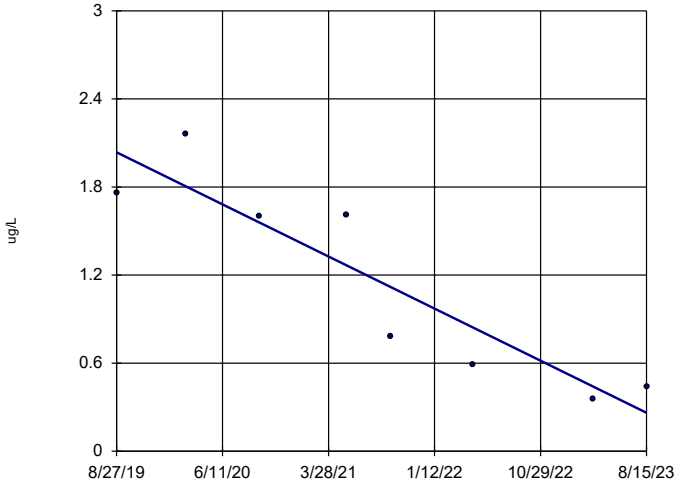
Sen's Slope Estimator

MW-32



n = 8

Slope = -0.4467 units per year.

Mann-Kendall statistic = -22 critical = -21

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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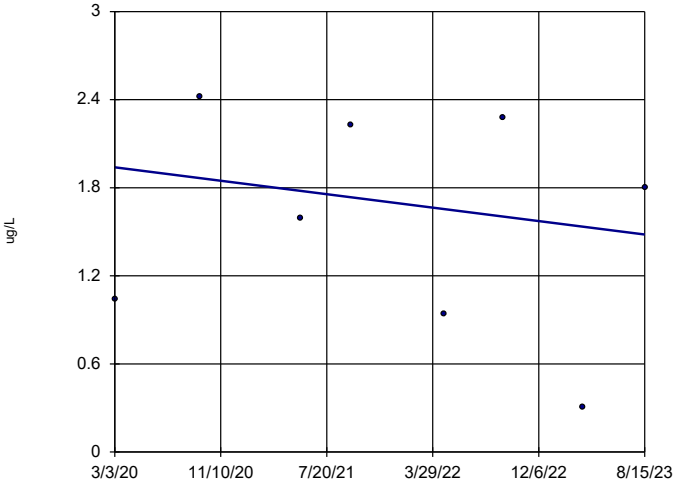
Sen's Slope Estimator

MW-90-11



n = 8

Slope = -0.1326 units per year.

Mann-Kendall statistic = -4 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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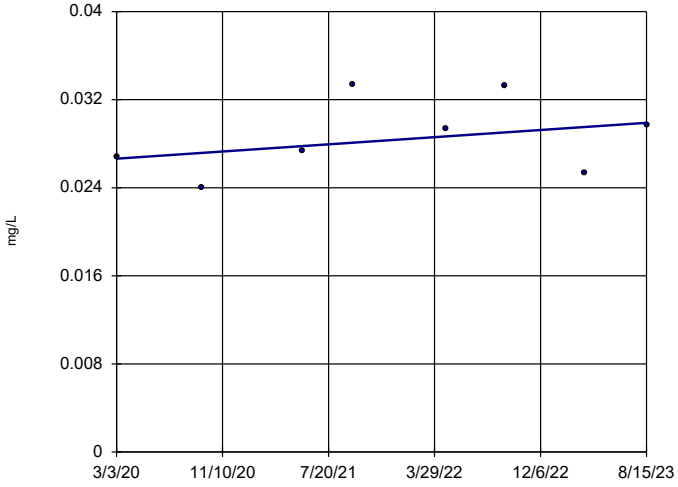
Sen's Slope Estimator

MW-20



n = 8

Slope = 0.0009437 units per year.

Mann-Kendall statistic = 8 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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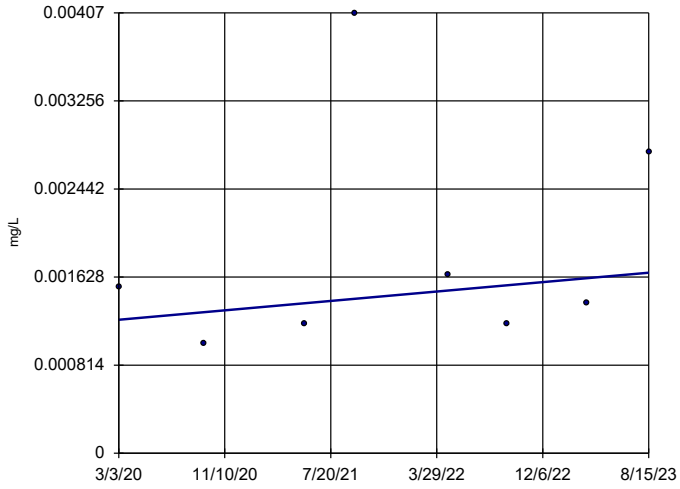
Sen's Slope Estimator

MW-24



n = 8

Slope = 0.0001258 units per year.

Mann-Kendall statistic = 7 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

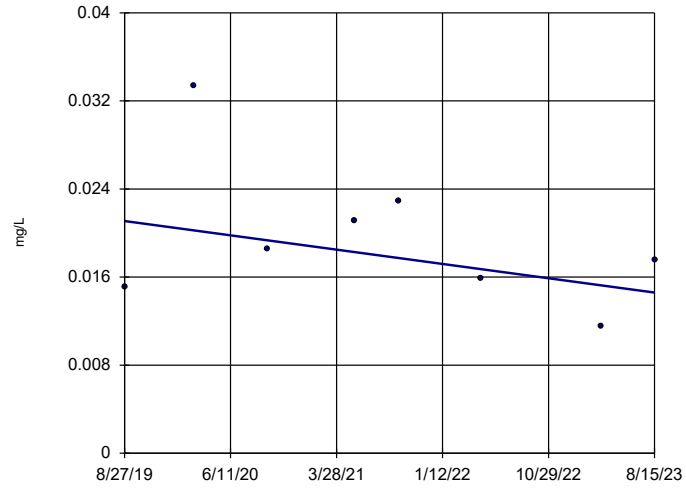
Constituent: Cobalt Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-32



n = 8

Slope = -0.001635 units per year.

Mann-Kendall statistic = -6 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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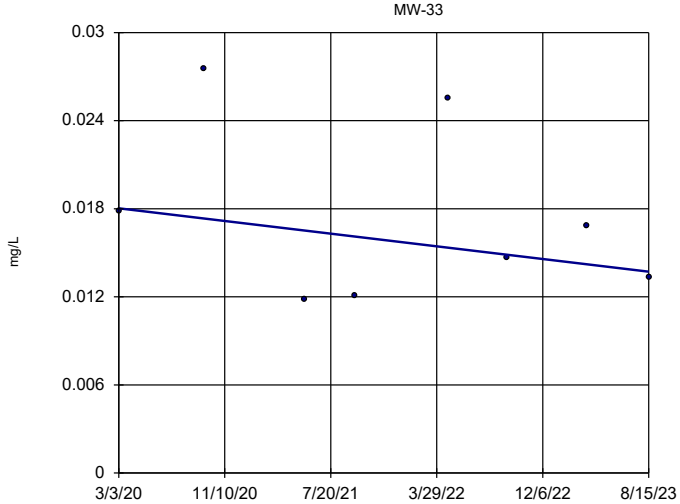
Sen's Slope Estimator

MW-33



n = 8

Slope = -0.00125 units per year.

Mann-Kendall statistic = -4 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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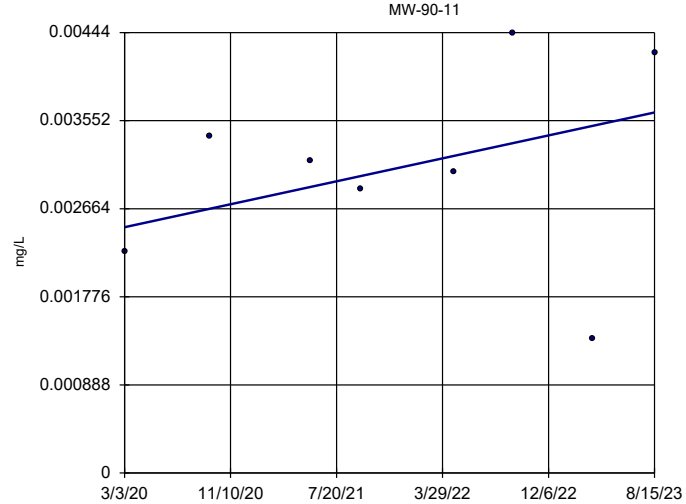
Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0.0003352 units per year.

Mann-Kendall statistic = 4 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source

Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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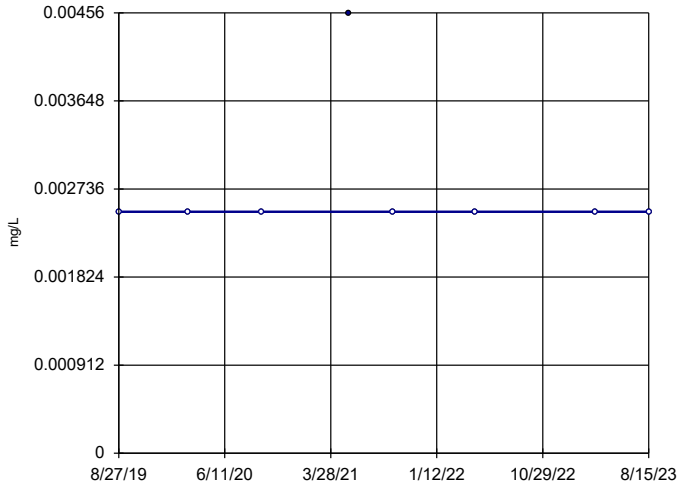
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -1
critical = -21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Copper Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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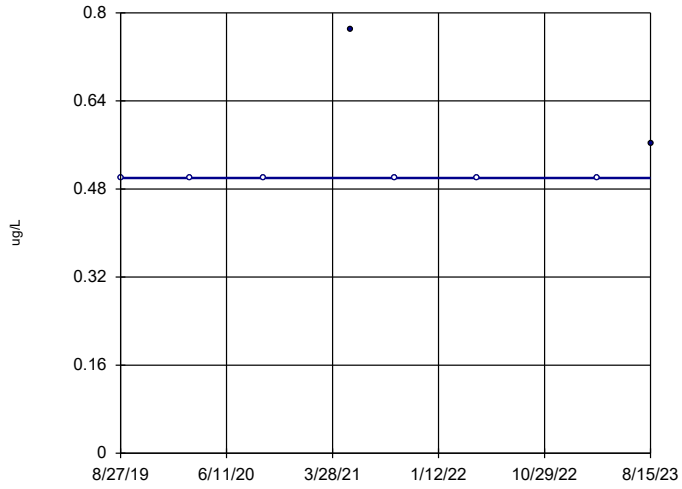
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 5
critical = 21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Ethylbenzene Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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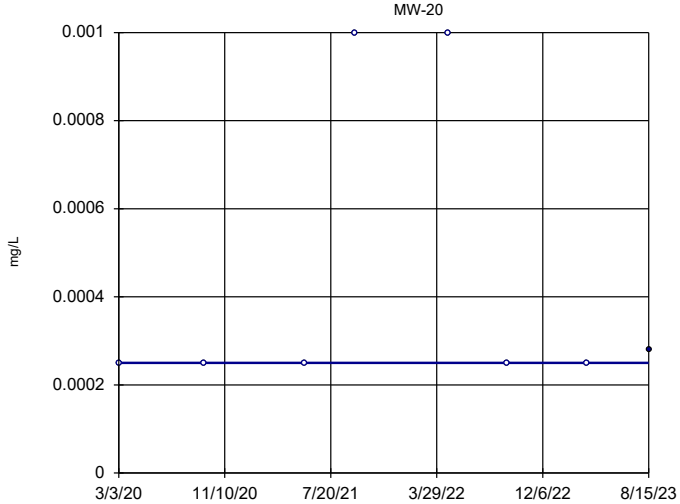
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 5
critical = 21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Lead Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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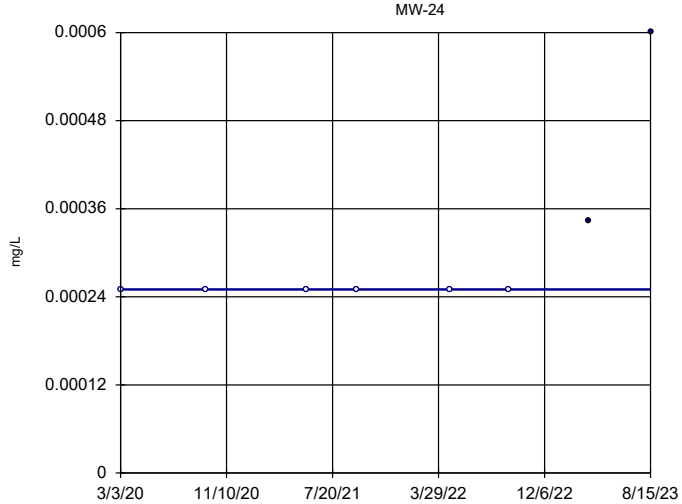
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-24



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 13
critical = 21

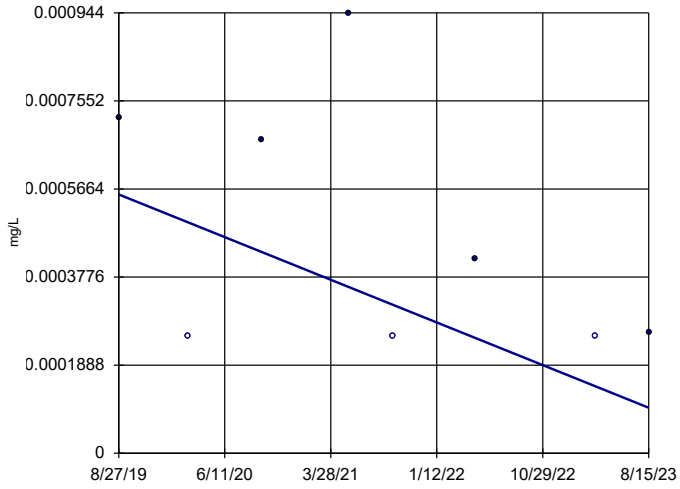
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Lead Analysis Run 11/8/2023 3:19 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

Slope = -0.0001151 units per year.

Mann-Kendall statistic = -7 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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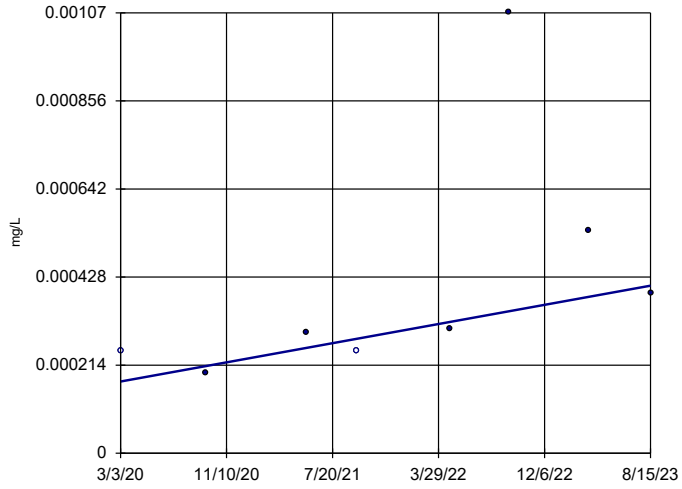
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-33



n = 8

Slope = 0.00006742 units per year.

Mann-Kendall statistic = 17 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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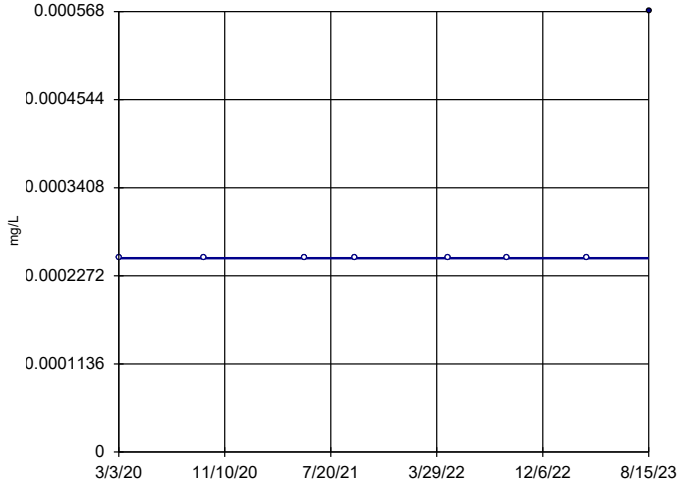
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 7 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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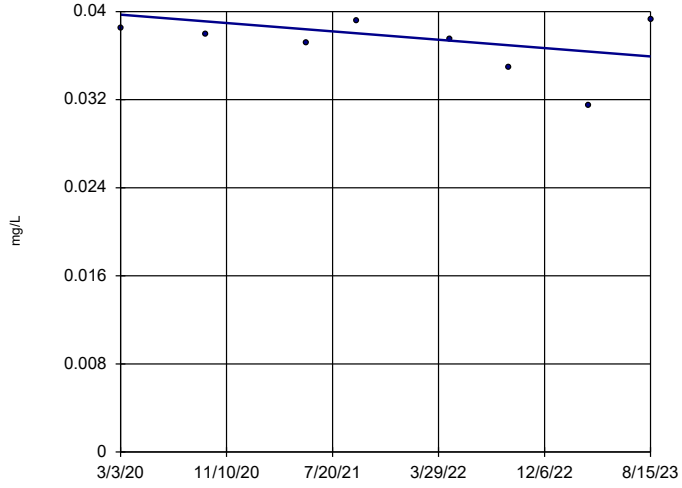
Sen's Slope Estimator

MW-20



n = 8

Slope = -0.001098 units per year.

Mann-Kendall statistic = -6 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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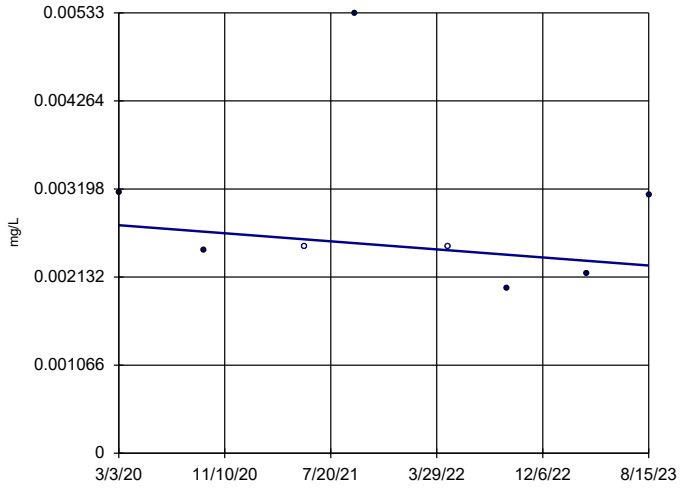
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-24



n = 8

Slope = -0.0001411 units per year.

Mann-Kendall statistic = -5
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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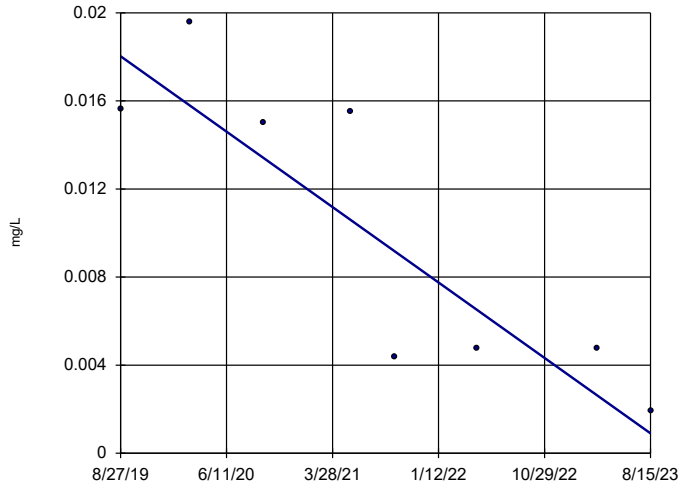
Sen's Slope Estimator

MW-32



n = 8

Slope = -0.004312 units per year.

Mann-Kendall statistic = -20
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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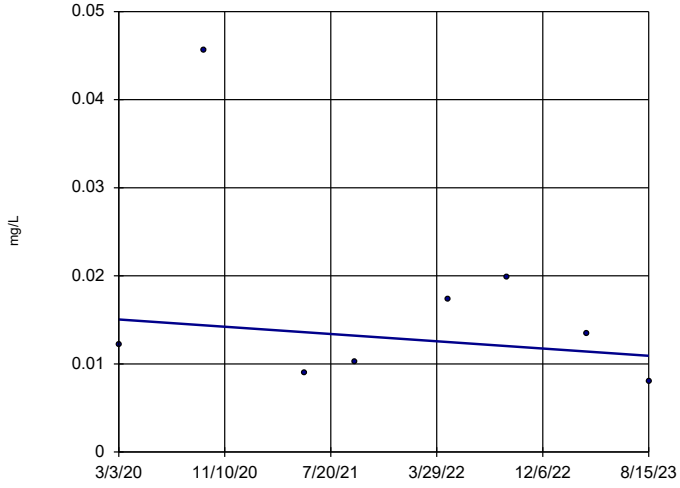
Sen's Slope Estimator

MW-33



n = 8

Slope = -0.001192 units per year.

Mann-Kendall statistic = -4
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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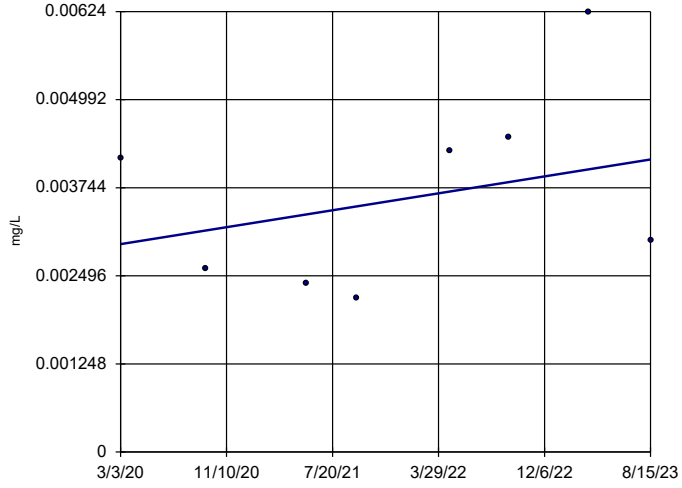
Sen's Slope Estimator

MW-90-11



n = 8

Slope = 0.0003471 units per year.

Mann-Kendall statistic = 8
critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Nickel Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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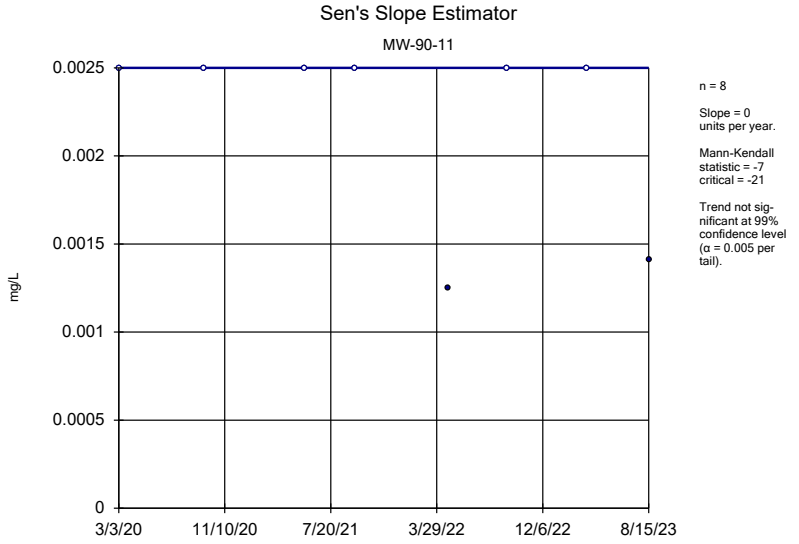
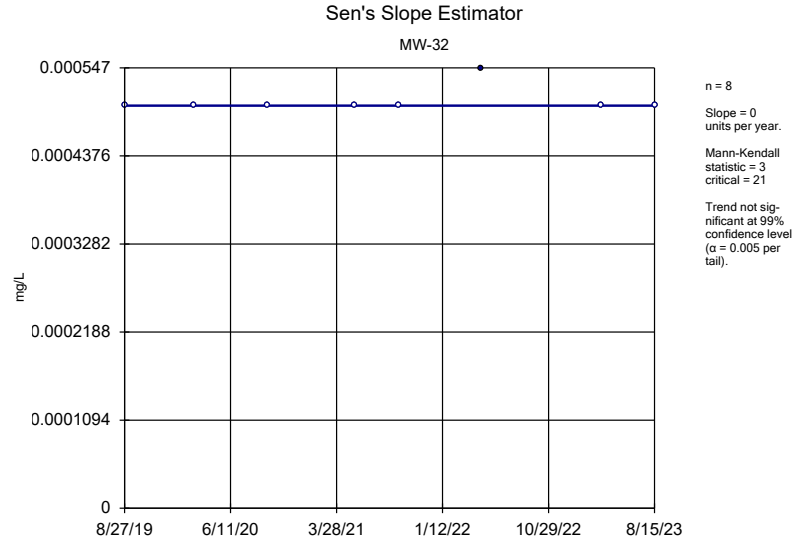
Hollow symbols indicate censored values.



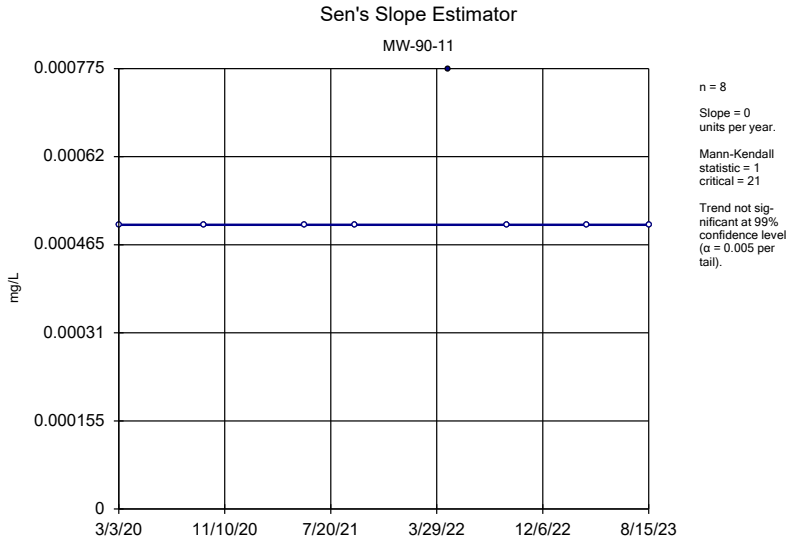
Constituent: Selenium Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



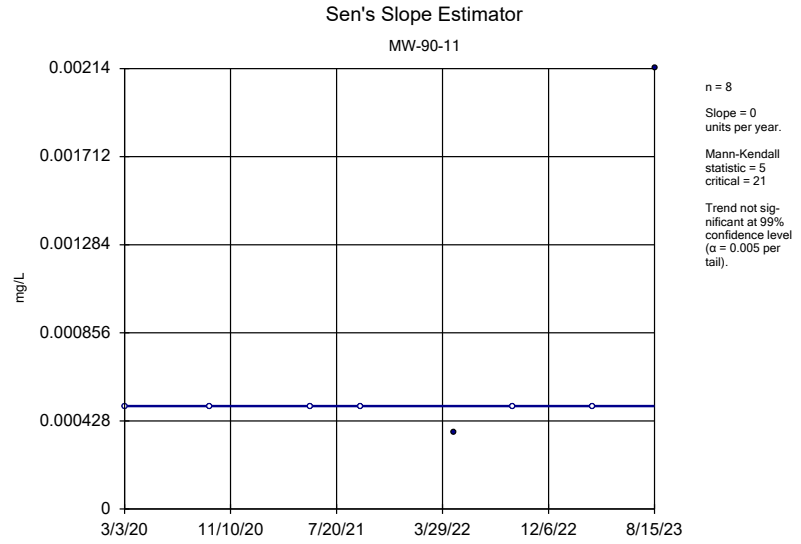
Constituent: Silver Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Silver Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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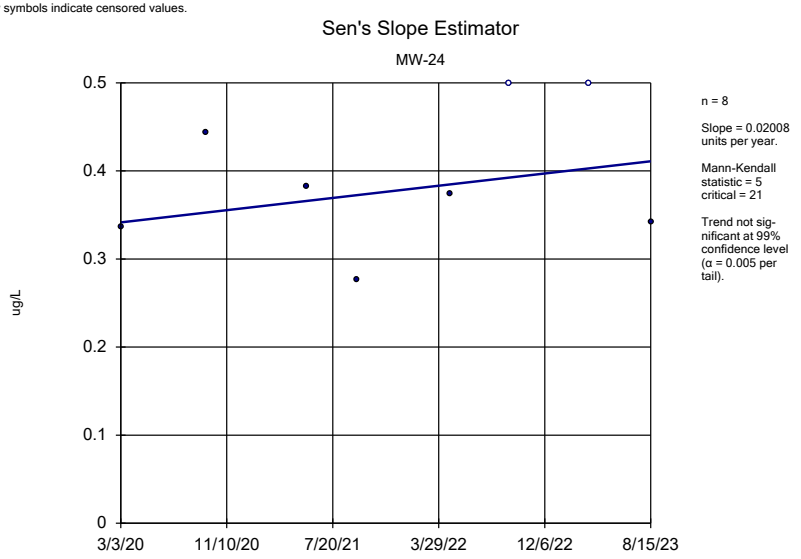
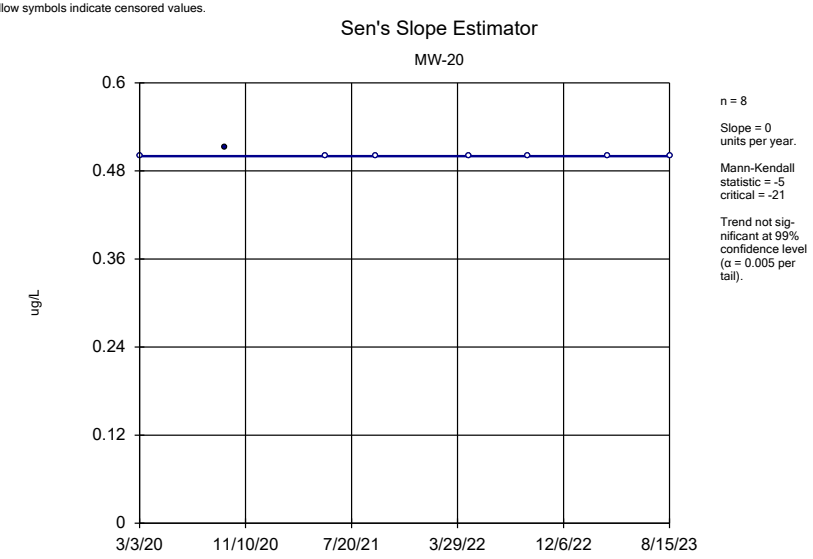
Hollow symbols indicate censored values.



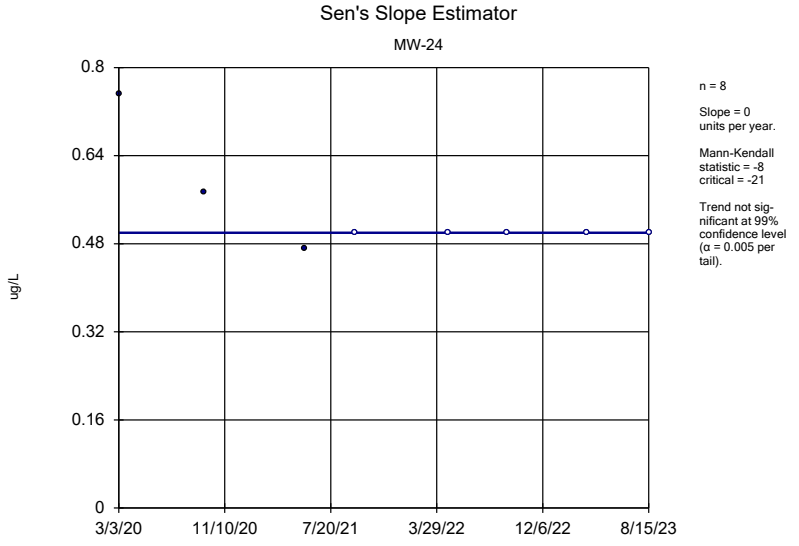
Constituent: trans-1,2-Dichloroethene Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



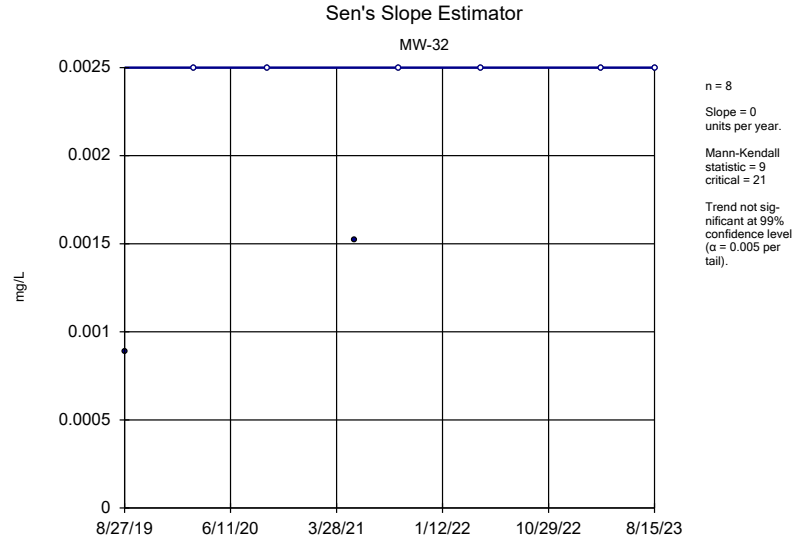
Constituent: Trichloroethene Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Trichloroethene Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



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Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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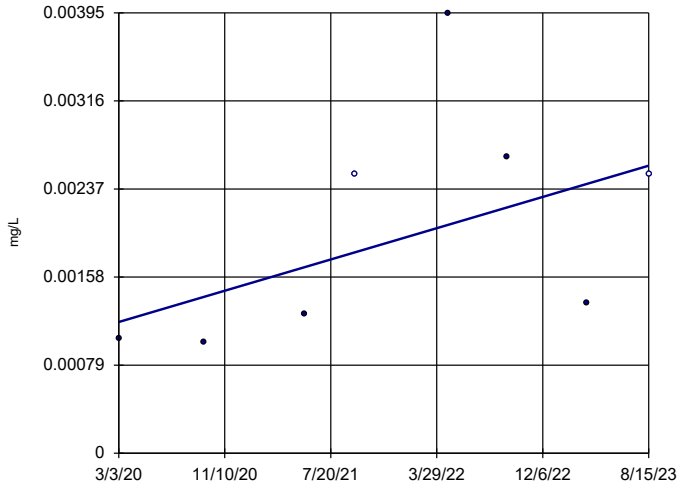
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-33



n = 8

Slope = 0.0004062 units per year.

Mann-Kendall statistic = 13 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Vanadium Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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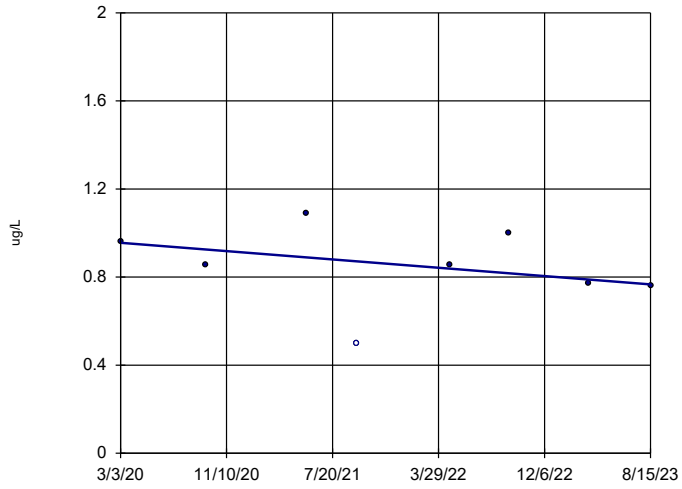
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = -0.05483 units per year.

Mann-Kendall statistic = -9 critical = -21

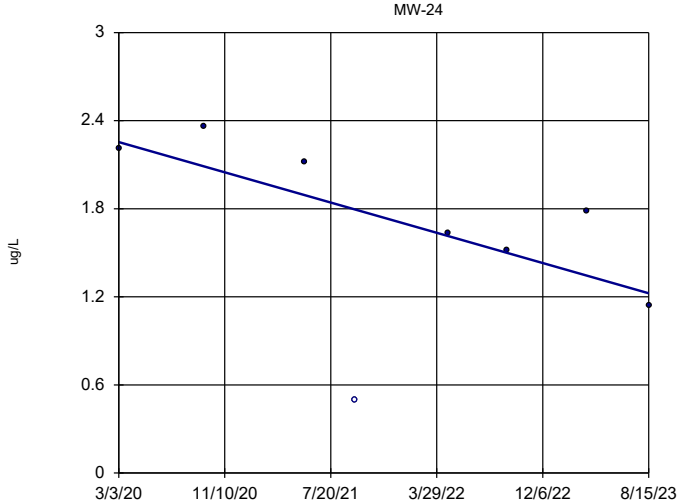
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Vinyl chloride Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-24



n = 8

Slope = -0.2984 units per year.

Mann-Kendall statistic = -14 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Vinyl chloride Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

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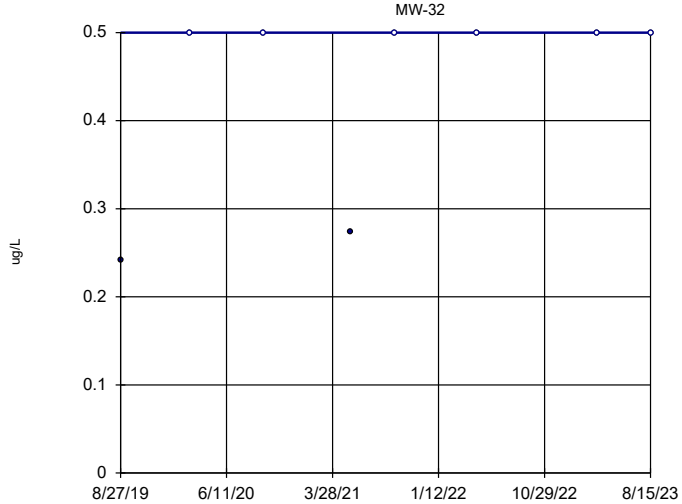
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-32



n = 8

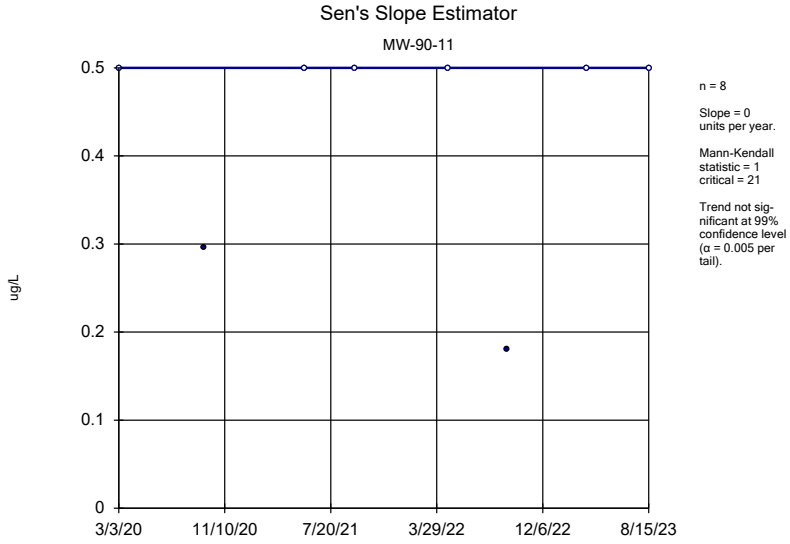
Slope = 0 units per year.

Mann-Kendall statistic = 9 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Vinyl chloride Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



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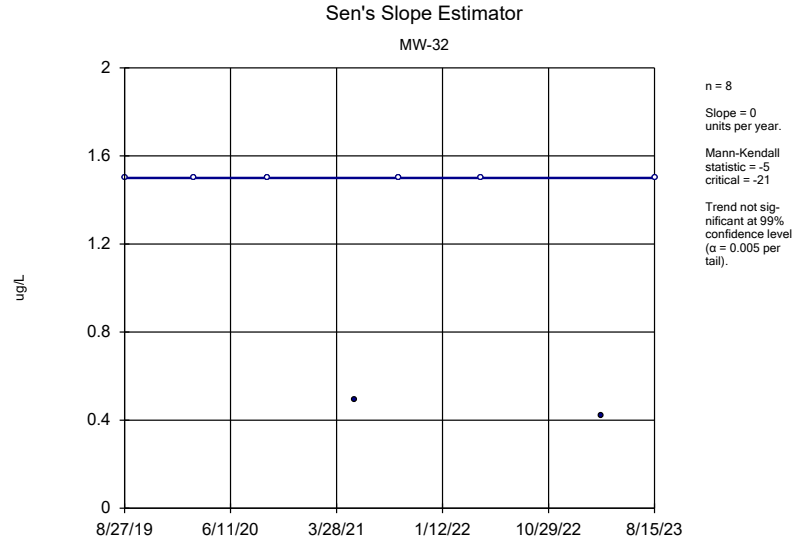
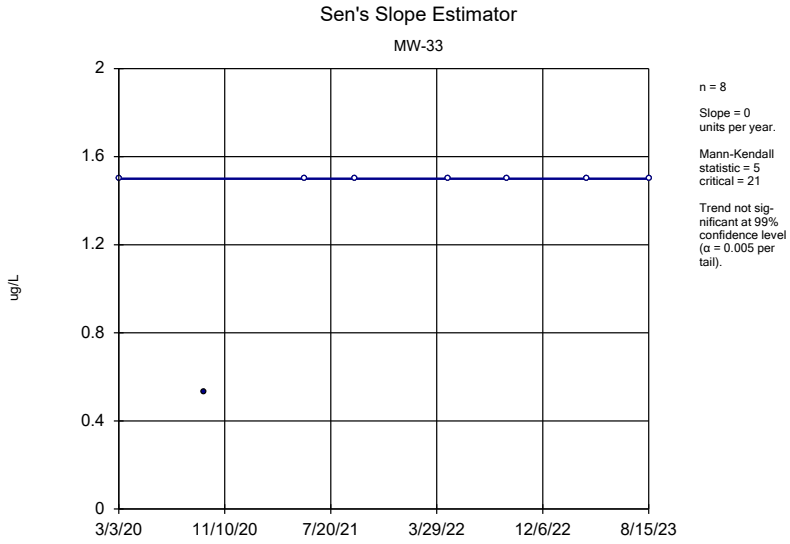
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



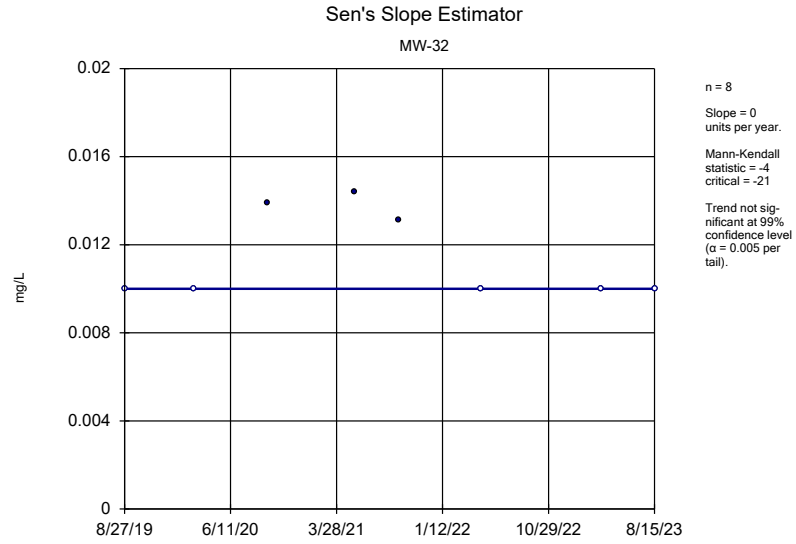
Constituent: Xylenes, total Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



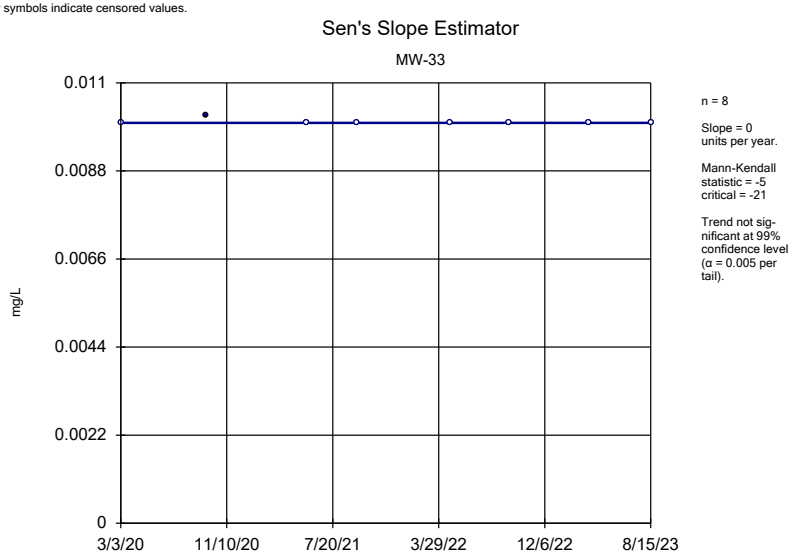
Constituent: Xylenes, total Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Zinc Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Sanitas™ v.10.0.08 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Zinc Analysis Run 11/8/2023 3:20 PM View: 2023AWQR - Mann Kendall - Source
Ottumwa-Wapello County LF Client: SCS Engineers Data: CCASW ES 2023AWQR-Source AM

Appendix G

2023 Leachate Control System Performance Evaluation Report

2023 LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT

FOR

CLINTON COUNTY SANITARY LANDFILL - EAST

PERMIT NO. 23-SDP-01-74P

CLINTON, IOWA

SUBMITTAL DATE: JANUARY 2024

PREPARED FOR:
CLINTON COUNTY AREA SOLID WASTE AGENCY

PREPARED BY:
SCS ENGINEERS

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1.1.2 North MSWLF Unit 1-2
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ATTACHMENT B HISTORICAL LEACHATE COLUMN THICKNESS TABLES AND GRAPHS

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Section 1.0
Leachate Control System

SCS Engineers (SCS), on behalf of the Clinton County Area Solid Waste Agency (Agency), has prepared this Leachate Control System Performance Evaluation Report (LCSPER) for the closed North and active South municipal solid waste landfill (MSWLF) units at the Clinton County Sanitary Landfill - East (Landfill). This LCSPER was prepared to comply with the requirements of the 2002 Iowa Administrative Code (IAC) 567-113.26(2)"I", current 567-113.7(5)"b"(14), and additional Iowa Department of Natural Resources (DNR) requirements specified in the site's operating permit, most recently revised on June 5, 2023 (Doc #106929). This LCSPER describes the leachate control system, discusses maintenance activities, provides an evaluation of the effectiveness of the system, and, if necessary, provides recommendations for additional control measures. The reporting period for this LCSPER is from November 2022 through November 2023.

1.1 Location of Control System

The Landfill property is depicted in Figure 1, Leachate Control System, and consists of approximately 330 acres located along 220th Street, approximately 5 miles west of Clinton, Iowa, and is located within the S ½, NE ¼; E ½, SW ¼; and the SE ¼ of Section 33, in Township 82 North, Range 6 East, in Clinton County, Iowa.

1.1.1 South MSWLF Unit

The South MSWLF unit consists of a lined area and an unlined area. The unlined portion was closed in 2009. Documentation of the closure was provided to the DNR in correspondence dated June 26, 2009.

At the time of closure of the unlined portion of the South MSWLF unit, a perforated leachate collection line was installed that gravity drains into the existing leachate collection system on the east side of the South MSWLF unit. The monitoring system for the unlined portion of the South MSWLF unit consisted of four leachate piezometers (LMW-5B, LMW-5DR, LMW-5AR, and LMW-6AR). Leachate piezometers LMW-5DR and LMW-6AR have subsequently been destroyed, but replacement was not required (Doc #95164). The requirements for the unlined area are not specified in the most recent version of 567 IAC 113; however, it is understood that the leachate levels must be maintained at the lowest level that is practical as it is not constructed over a Subtitle D-compliant liner.

The lined portion of the South MSWLF unit consists of Phase 0, Phase 1A, Phase E-1, and Phase 2 cells, constructed in 2007, 2011, 2017, and 2020, respectively. Leachate collected from the Phase 0 cell gravity drains into a manhole located just south of the south boundary of the Phase 0 cell. From this manhole, the leachate gravity drains to the leachate storage lagoon. Leachate collected from the Phase 1A and Phase 2 cells is pumped up a side slope riser to a location just south of the Phase 1A cell at which point the leachate gravity flows to the manhole on the south side of the Phase 0 cell and continues from there to the leachate storage lagoon. In the Phase E-1 cell, leachate piping was placed in a north-to-south and east-to-west alignment converging at the southwest corner of the cell, where it was connected to the existing leachate collection system piping. The monitoring system for these cells consists of leachate piezometers LPZ-0, LPZ-1, and LPZ-E1. Leachate piezometers LPZ-0 and LPZ-1 are measured manually. Leachate piezometer LPZ-0 was dry throughout this reporting period. Leachate piezometer LPZ-1 is difficult to access due to the height and angle of the casing and has an obstruction; an electronic water level indicator does not go past approximately 19 feet below the top of casing while the installed depth is 46 feet. Leachate levels in LPZ-E1 are

monitored by a supervisory control and data acquisition (SCADA) system. The lined area is required to maintain less than 12 inches of leachate head on the liner. Further detail is available in the construction observation reports for each cell.

At the time of construction of the Phase 1A cell, four perforated leachate collection lines were installed in the cell and connected to the perforated header to assist with leachate collection. Installation of a toe drain in the Phase 0 cell was also performed in conjunction with the Phase 1A cell construction to address a leachate seep. During construction of the Phase E-1 cell, a leachate seep was encountered in the portion of the cell that is underlain by the closed, unlined cell. A leachate toe drain was installed to address the seep and was connected to the existing leachate header piping.

The leachate storage lagoon was constructed in 2005 and is used for leachate storage from both the North and South MSWLF units. The lagoon discharges to the City of Clinton sewer system through a lift station, force main, and gravity line.

1.1.2 North MSWLF Unit

The leachate collection system for the North MSWLF unit consists of sections of perforated leachate collection piping installed in Ravines 2, 3, and 4 to intercept previous leachate seeps. The leachate collection piping gravity drains to two lift stations, which then pump to a manhole that gravity drains to the leachate storage lagoon. Additional perforated leachate collection piping was added in 2007. Additional piping and trenches were constructed in 2008 to address persistent seeps. The monitoring system for the North MSWLF unit consists of leachate piezometers LMW-2A, LMW-3A, LMW-4A, and LMW-4B. The leachate levels in the North MSWLF unit must be maintained at the lowest level that is practical as it is not constructed over a Subtitle D-compliant liner. Both lift stations are monitored by a SCADA system, which includes high-level alarms that are sent to Landfill staff and the contract operator.

1.2 Effectiveness of the Leachate Control System

1.2.1 South MSWLF Unit

Table 12 in Attachment A provides a summary of monthly leachate column thickness measurements for the South MSWLF unit recorded during this reporting period. Monthly measurements were supplied to SCS by the Agency; measurements marked “NM” were not available from the Agency. The South MSWLF unit leachate piezometers over the unlined area originally included LMW-5A, LMW-5B, LMW-5C, LMW-5DR, and LMW-6AR. LMW-5C was recorded as destroyed beginning in January 2015. Leachate piezometer LMW-5A was abandoned during Cell E-1 construction in June 2016 and replaced by LMW-5AR in 2018. Leachate piezometers LMW-5DR and LMW-6AR were reported as missing beginning in July 2016. The column thickness in leachate piezometer LMW-5AR was dry to less than 0.5 feet throughout this reporting period. The column thickness in leachate piezometer LMW-5B during this and the previous reporting period was erratic, including four measurements at 2-3 feet and measurements of 10.5 and 16.6 feet during this reporting period.

The South MSWLF unit leachate piezometers over Subtitle D-compliant liner are LPZ-0, LPZ-1, and LPZ-E1, monitoring the Phase 0, 1A, and E-1 cells, respectively. Since these piezometers are over a Subtitle D-compliant liner and a leachate drainage layer, they are required to maintain less than 12 inches of head.

Since leachate piezometer LPZ-E1 is continuously monitored by the SCADA system, the average monthly leachate levels are utilized to verify compliance. The piezometer was dry during this reporting period through April 2023 and below the compliance limit through September 2023. However, an increase in thickness above the compliance limit was measured in October and November 2023. A plan to correct the compliance limit in leachate piezometer LPZ-E1 will be developed and implemented.

As noted in Evora Consulting's Response to the May 10, 2021 Comment Letter (Response Letter) dated June 1, 2021 (Doc #100598), LPZ-0 was further evaluated and did not appear to be damaged or kinked. The piezometer was dry during this reporting period.

Leachate piezometer LPZ-1 was consistently dry since installation in 2011 through 2018. Starting with the November 2018 measurements, depth measurements decreased from 46 feet to measurements ranging from 17-19 feet, indicating an obstruction or kink in the piezometer casing. LPZ-1 was repaired as proposed in the Response Letter. However, measurements at LPZ-1 in August 2023 that did appear to reach the bottom of the piezometer (depth measurement of 45.8 feet) showed a leachate thickness measurement exceeding 12 inches. It is proposed to attempt to remove the obstruction and inspect the piezometer with a well camera to investigate the integrity of the piezometer in the spring of 2024. A leachate thickness table and graphs for the South MSWLF unit are included in Attachment B.

1.2.2 North MSWLF Unit

Table 12 in Attachment A provides monthly leachate column thicknesses for the North MSWLF unit measured during this reporting period. The leachate thicknesses measured in leachate piezometers LMW-2A and LMW-3A were within their historical ranges during this reporting period. The leachate thicknesses in LMW-4A were generally within the historical range, however a maximum thickness since 2004 was measured in January 2023. The leachate column thicknesses in LMW-4B were unavailable. The depth measurements of LMW-4B ranged from six feet to 37 feet, so it is likely the piezometer is damaged/obstructed. A leachate thickness table and graphs for the North MSWLF unit are included in Attachment B.

1.3 Approved Changes to System

As stated above, leachate piezometer LPZ-1 had been damaged and was attempted to be repaired. The stick-up was able to be straightened, but there is apparently an obstruction below grade.

1.4 Proposed Changes to System

- The Agency proposes to inspect leachate piezometer LPZ-1 for integrity.
- A plan to correct the compliance limit exceedance in leachate piezometer LPZ-E1 will be developed and implemented.
- SCS recommends continuing to perform the following items to maintain the effectiveness of the leachate control system:
    - Continue monthly monitoring of the leachate levels as required in the facility permit.
    - Maintain good vegetation over the final cover and intermediate cover over the inactive areas.
    - Continue operation and maintenance of the leachate control system in accordance with the approved Leachate Control System Plan.
    - Continue recording the volume of leachate discharged to the City of Clinton publicly-owned treatment works (POTW). An estimated 2,313,700 gallons were discharged during this reporting period based on pump run times and pump capacity.
    - Continue cleaning the leachate collection system once every three years, or more frequently if leachate head or the volume of leachate collected indicates cleaning is necessary. Cleaning was attempted during the 2022 reporting period, but it was unsuccessful. Cleaning will be attempted again in 2024.

Leachate Control System

Legend

- Leachate Control System Point
- Leachate Monitoring Location
- Leachate Monitoring Location
- Leachate Line - Solid
- Leachate Line - Perforated
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Clinton County Sanitary Landfill
East MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

Figure 1

N
W E
S

0 260 520 1,040 1,560 Feet

SCS ENGINEERS
environmental consultants and contractors

GEODATA, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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User: bmadison
Date Saved: 11/8/2023 10:55 AM

Attachment A

Table 12 – Leachate Management Summary

Table 12
Leachate Management Summary
2023 Leachate Control System Performance Evaluation Report
Clinton County Sanitary Landfill - East, South MSWLF Unit
Permit No. 23-SDP-01-74P

Month	North MSWLF Unit			South MSWLF Unit					Discharge to City of Clinton POTW	Precipitation (in)
	LMW-2A	LMW-3A	LMW-4A	LMW-5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1		
11/10/2022	NM	NM	NM	NM	NM	NM	NM	0.00		2.47
12/10/2022	NM	NM	NM	NM	NM	NM	NM	0.00		1.61
1/12/2023	16.37	NM	13.91	0.29	2.19	0.00	NM	0.00		0.74
2/23/2023	17.05	NM	13.64	0.00	2.17	0.00	NM	0.00		1.94
3/10/2023	NM	NM	NM	NM	NM	NM	NM	0.00		1.76
4/15/2023	NM	NM	NM	NM	NM	NM	NM	0.00		2.13
5/27/2023	NM	NM	NM	NM	NM	NM	NM	0.07		2.37
6/26/2023	16.75	NM	12.50	NM	2.78	0.00	NM	0.06		1.30
7/19/2023	NM	NM	NM	NM	NM	NM	NM	0.06		4.05
8/2/2023	16.55	23.20	12.50	0.00	16.58	0.00	7.10	0.05		0.97
9/29/2023	16.95	22.80	11.60	0.27	10.48	0.00	NM	0.50		3.31
10/15/2023	NM	NM	NM	NM	NM	NM	NM	1.60		0.55
11/29/2023	16.55	23.20	11.90	0.37	2.28	0.00	NM	5.60		0.55
								Reporting Period Total	2,313,700	23.20

Notes:
1) Leachate levels are measured by the contract operator except January and February 2023 were measured by Evora Consulting.
2) NM - Not measured. Measurements were unavailable due to collector error or possibly damaged or destroyed monitoring point.
3) LPZ-E1 is monitored by SCADA.
4) * - Discharges to the City of Clinton POTW are not measured. The discharge is estimated by multiplying the pump run times recorded by the SCADA system by an estimated pump flow rate of 100 gallons per minute. The maximum flow rates of the pumps are 142 gallons per minute.
5) Precipitation data obtained from the Iowa State University Iowa Environmental Mesonet for Clinton, Iowa.
(https://mesonet.agron.iastate.edu/ASOS/reports/mon_prec.php)

Comments:
Reporting Period: November 2022 - November 2023.
Recommended Changes to Leachate Collection System: Please see the narrative portion of Appendix E.
Maintenance Performed on Leachate Collection System: Please see the narrative portion of Appendix E.
Last Date of Cleaning and Inspection: Attempted in 2022. Please see the narrative portion of Appendix E.
Date for Next Cleaning and Inspection: Leachate line cleaning and inspection will be completed next in 2024.
Volume of Leachate Recirculated: Leachate is not recirculated.
Volume of Leachate Treated On-Site: Leachate is not treated on-site.
Volume of Leachate Treated Off-Site: An estimated total of approximately 2,313,700 gallons of leachate were discharged to the City of Clinton POTW during this reporting period.

Attachment B

Historical Leachate Column Thickness Tables and Graphs

Attachment B
Historical Leachate Piezometer Column Thicknesses and Elevations
Clinton County Sanitary Landfill - East
Permit No. 23-SDP-01-74P
Project No. 27223133.24

		North MSWLF Unit			South MSWLF Unit				
Date	Leachate well	LMW-2A	LMW-3A	LMW-4A	LMW-5A/5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1
	TOC Elevation	727.42	716.83	718.46	723.51	743.76	692.92	715.84	NM
	Total Depth	31.8	35.2	20.5	54.2	39.6	9.0	46.0	65.6
10/15/2002	Column Thickness	17.55	21.85	25.90	NM	NM	NI	NI	NI
	Leachate Elevation	709.87	702.18	707.86	NA	NA	NA	NA	NA
9/8/2004	Column Thickness	15.85	NM	11.50	NM	NM	NI	NI	NI
	Leachate Elevation	711.52	NA	709.46	NA	NA	NA	NA	NA
9/6/2006	Column Thickness	15.75	19.80	11.50	7.90	Dry	NI	NI	NI
	Leachate Elevation	711.42	701.43	709.46	677.21	NA	NA	NA	NA
3/15/2007	Column Thickness	15.95	20.10	Dry	7.90	Dry	NI	NI	NI
	Leachate Elevation	711.62	701.73	NA	677.21	NA	NA	NA	NA
9/26/2007	Column Thickness	16.28	21.06	11.20	5.25	Dry	Dry	NI	NI
	Leachate Elevation	711.95	702.69	709.16	674.56	NA	NA	NA	NA
4/9/2008	Column Thickness	17.37	21.64	NM	NM	Dry	Dry	NI	NI
	Leachate Elevation	713.04	703.27	NA	NA	NA	NA	NA	NA
9/10/2008	Column Thickness	16.09	21.98	NM	9.20	Dry	Dry	NI	NI
	Leachate Elevation	711.76	703.61	NA	678.51	NA	NA	NA	NA
3/25/2009	Column Thickness	17.10	21.90	NM	Dry	Dry	0.25	NI	NI
	Leachate Elevation	712.77	703.53	NA	723.51	NA	684.22	NA	NA
9/2/2009	Column Thickness	17.11	22.88	NM	Dry	Dry	Dry	NI	NI
	Leachate Elevation	712.78	704.51	NA	723.51	NA	NA	NA	NA
2/6/2010	Column Thickness	17.05	22.80	12.30	9.20	Dry	Dry	NI	NI
	Leachate Elevation	712.72	704.43	710.26	678.51	NA	NA	NA	NA
3/15/2010	Column Thickness	17.87	26.15	12.48	9.38	Dry	0.31	NI	NI
	Leachate Elevation	713.54	707.78	710.44	678.69	NA	684.23	NA	NA
9/1/2010	Column Thickness	18.03	23.05	13.06	NM	Dry	Dry	NI	NI
	Leachate Elevation	713.70	704.68	711.02	NA	NA	NA	NA	NA
11/29/2010	Column Thickness	16.46	22.50	12.29	9.27	Dry	Dry	NI	NI
	Leachate Elevation	710.96	694.33	706.17	714.24	NA	NA	NA	NA
12/28/2010	Column Thickness	16.31	22.70	12.21	9.27	Dry	Dry	NI	NI
	Leachate Elevation	711.11	694.13	706.25	714.24	NA	NA	NA	NA
1/29/2011	Column Thickness	16.44	22.70	12.20	13.00	Dry	Dry	NI	NI
	Leachate Elevation	710.98	694.13	706.26	710.51	NA	NA	NA	NA
2/23/2011	Column Thickness	16.40	22.70	12.19	12.99	Dry	Dry	NI	NI
	Leachate Elevation	711.02	694.13	706.27	710.52	NA	NA	NA	NA
3/7/2011	Column Thickness	16.38	22.80	12.20	12.99	Dry	Dry	NI	NI
	Leachate Elevation	711.04	694.03	706.26	710.52	NA	NA	NA	NA
4/8/2011	Column Thickness	16.40	22.60	12.20	12.99	Dry	Dry	NI	NI
	Leachate Elevation	711.02	694.23	706.26	710.52	NA	NA	NA	NA
5/16/2011	Column Thickness	16.38	22.70	12.11	13.00	Dry	Dry	NI	NI
	Leachate Elevation	711.04	694.13	706.35	710.51	NA	NA	NA	NA
6/14/2011	Column Thickness	16.35	22.50	12.23	11.90	Dry	Dry	NI	NI
	Leachate Elevation	711.07	694.33	706.23	711.61	NA	NA	NA	NA
7/1/2011	Column Thickness	16.40	22.70	12.23	11.90	Dry	Dry	NI	NI
	Leachate Elevation	711.02	694.13	706.23	711.61	NA	NA	NA	NA
8/3/2011	Column Thickness	16.40	22.60	12.23	11.90	Dry	Dry	NI	NI
	Leachate Elevation	711.02	694.23	706.23	711.61	NA	NA	NA	NA
9/5/2011	Column Thickness	16.41	22.60	12.24	11.90	Dry	Dry	NI	NI
	Leachate Elevation	711.01	694.23	706.22	711.61	NA	NA	NA	NA
10/6/2011	Column Thickness	16.28	22.80	12.20	12.99	Dry	Dry	Dry	NI
	Leachate Elevation	711.14	694.03	706.26	710.52	NA	NA	NA	NA
11/11/2011	Column Thickness	16.30	22.90	12.30	13.00	Dry	Dry	Dry	NI
	Leachate Elevation	711.12	693.93	706.16	710.51	NA	NA	NA	NA
12/1/2011	Column Thickness	16.40	23.10	12.30	12.99	Dry	Dry	Dry	NI
	Leachate Elevation	711.02	693.73	706.16	710.52	NA	NA	NA	NA

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Historical Leachate Piezometer Column Thicknesses and Elevations
Clinton County Sanitary Landfill - East
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		North MSWLF Unit			South MSWLF Unit				
Date	Leachate well	LMW-2A	LMW-3A	LMW-4A	LMW-5A/5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1
	TOC Elevation	727.42	716.83	718.46	723.51	743.76	692.92	715.84	NM
	Total Depth	31.8	35.2	20.5	54.2	39.6	9.0	46.0	65.6
1/15/2012	Column Thickness	16.50	22.70	12.30	12.40	Dry	Dry	Dry	NI
	Leachate Elevation	710.92	694.13	706.16	711.11	NA	NA	NA	NA
2/12/2012	Column Thickness	16.55	22.60	12.30	13.08	Dry	Dry	Dry	NI
	Leachate Elevation	710.87	694.23	706.16	710.43	NA	NA	NA	NA
3/5/2012	Column Thickness	16.45	22.50	12.35	13.08	Dry	Dry	Dry	NI
	Leachate Elevation	710.97	694.33	706.11	710.43	NA	NA	NA	NA
4/10/2012	Column Thickness	16.50	22.70	12.21	13.07	Dry	Dry	Dry	NI
	Leachate Elevation	710.92	694.13	706.25	710.44	NA	NA	NA	NA
5/20/2012	Column Thickness	16.45	22.60	12.25	13.10	Dry	Dry	Dry	NI
	Leachate Elevation	710.97	694.23	706.21	710.41	NA	NA	NA	NA
6/11/2012	Column Thickness	16.47	22.59	12.27	13.08	Dry	Dry	Dry	NI
	Leachate Elevation	710.95	694.24	706.19	710.43	NA	NA	NA	NA
7/8/2012	Column Thickness	16.51	22.65	12.23	13.08	Dry	Dry	Dry	NI
	Leachate Elevation	710.91	694.18	706.23	710.43	NA	NA	NA	NA
8/21/2012	Column Thickness	16.53	22.70	12.24	13.10	Dry	Dry	Dry	NI
	Leachate Elevation	710.89	694.13	706.22	710.41	NA	NA	NA	NA
9/14/2012	Column Thickness	16.50	22.60	12.28	13.07	Dry	Dry	Dry	NI
	Leachate Elevation	710.92	694.23	706.18	710.44	NA	NA	NA	NA
10/5/2012	Column Thickness	16.46	22.90	12.28	13.07	Dry	Dry	Dry	NI
	Leachate Elevation	712.13	704.53	710.24	682.38	NA	NA	NA	NA
11/8/2012	Column Thickness	16.45	23.00	12.30	13.08	Dry	Dry	Dry	NI
	Leachate Elevation	712.12	704.63	710.26	682.39	NA	NA	NA	NA
12/12/2012	Column Thickness	16.45	22.90	12.30	13.07	Dry	Dry	Dry	NI
	Leachate Elevation	712.12	704.53	710.26	682.38	NA	NA	NA	NA
1/6/2013	Column Thickness	15.91	21.94	12.40	9.64	0.28	Dry	Dry	NI
	Leachate Elevation	711.58	703.57	710.36	678.95	704.46	NA	NA	NA
2/5/2013	Column Thickness	15.91	22.00	12.40	9.64	0.28	Dry	Dry	NI
	Leachate Elevation	711.58	703.63	710.36	678.95	704.46	NA	NA	NA
3/15/2013	Column Thickness	15.91	21.94	12.40	9.64	0.28	Dry	Dry	NI
	Leachate Elevation	711.58	703.57	710.36	678.95	704.46	NA	NA	NA
4/10/2013	Column Thickness	15.91	21.92	12.40	9.62	0.28	Dry	Dry	NI
	Leachate Elevation	711.58	703.55	710.36	678.93	704.46	NA	NA	NA
5/6/2013	Column Thickness	15.91	21.95	12.40	9.65	0.28	Dry	Dry	NI
	Leachate Elevation	711.58	703.58	710.36	678.96	704.46	NA	NA	NA
6/13/2013	Column Thickness	15.91	21.95	12.40	9.65	0.28	Dry	Dry	NI
	Leachate Elevation	711.58	703.58	710.36	678.96	704.46	NA	NA	NA
7/5/2013	Column Thickness	15.92	21.95	12.40	9.70	0.28	Dry	Dry	NI
	Leachate Elevation	711.59	703.58	710.36	679.01	704.46	NA	NA	NA
8/13/2013	Column Thickness	15.93	21.96	12.40	9.70	0.28	Dry	Dry	NI
	Leachate Elevation	711.60	703.59	710.36	679.01	704.46	NA	NA	NA
8/22/2013	Column Thickness	15.93	NM	NM	NM	NM	NM	NM	NI
	Leachate Elevation	711.60	NA	NA	NA	NA	NA	NA	NA
9/5/2013	Column Thickness	15.87	21.94	12.50	9.64	0.28	Dry	Dry	NI
	Leachate Elevation	711.54	703.57	710.46	678.95	704.46	NA	NA	NA
10/10/2013	Column Thickness	15.94	21.94	12.50	9.64	0.28	Dry	Dry	NI
	Leachate Elevation	711.61	703.57	710.46	678.95	704.46	NA	NA	NA
11/25/2013	Column Thickness	15.95	21.92	12.00	9.80	0.28	Dry	Dry	NI
	Leachate Elevation	711.62	703.55	709.96	679.11	704.46	NA	NA	NA
12/5/2013	Column Thickness	15.95	21.90	11.80	9.85	0.28	Dry	Dry	NI
	Leachate Elevation	711.62	703.53	709.76	679.16	704.46	NA	NA	NA

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		North MSWLF Unit			South MSWLF Unit				
Date	Leachate well	LMW-2A	LMW-3A	LMW-4A	LMW-5A/5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1
	TOC Elevation	727.42	716.83	718.46	723.51	743.76	692.92	715.84	NM
	Total Depth	31.8	35.2	20.5	54.2	39.6	9.0	46.0	65.6
1/30/2014	Column Thickness	15.95	21.90	11.70	9.82	0.28	Dry	Dry	NI
	Leachate Elevation	711.62	703.53	709.66	679.13	704.46	NA	NA	NA
2/28/2014	Column Thickness	16.40	NM	5.70	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	712.07	NA	703.66	679.51	NA	NA	NA	NA
3/13/2014	Column Thickness	16.60	NM	6.10	9.60	Dry	Dry	Dry	NI
	Leachate Elevation	712.27	NA	704.06	678.91	NA	NA	NA	NA
4/9/2014	Column Thickness	10.25	23.98	10.79	9.50	Dry	Dry	Dry	NI
	Leachate Elevation	705.92	705.61	708.75	678.81	NA	NA	NA	NA
5/15/2014	Column Thickness	10.45	24.00	11.30	9.50	Dry	Dry	Dry	NI
	Leachate Elevation	706.12	705.63	709.26	678.81	NA	NA	NA	NA
6/10/2014	Column Thickness	10.55	24.00	10.90	9.60	Dry	Dry	Dry	NI
	Leachate Elevation	706.22	705.63	708.86	678.91	NA	NA	NA	NA
7/22/2014	Column Thickness	10.75	24.20	11.10	9.90	Dry	Dry	Dry	NI
	Leachate Elevation	706.42	705.83	709.06	679.21	NA	NA	NA	NA
8/21/2014	Column Thickness	10.75	24.20	11.20	9.90	Dry	Dry	Dry	NI
	Leachate Elevation	706.42	705.83	709.16	679.21	NA	NA	NA	NA
9/15/2014	Column Thickness	10.75	24.20	11.10	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	706.42	705.83	709.06	679.51	NA	NA	NA	NA
10/13/2014	Column Thickness	10.75	24.20	11.40	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	706.42	705.83	709.36	679.51	NA	NA	NA	NA
11/25/2014	Column Thickness	10.75	24.20	10.60	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	706.42	705.83	708.56	679.51	NA	NA	NA	NA
12/10/2014	Column Thickness	10.75	24.00	11.20	10.00	Dry	Dry	Dry	NI
	Leachate Elevation	706.42	705.63	709.16	679.31	NA	NA	NA	NA
1/10/2015	Column Thickness	15.75	24.30	10.50	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	705.93	708.46	679.51	NA	NA	NA	NA
2/8/2015	Column Thickness	15.75	24.30	10.50	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	705.93	708.46	679.51	NA	NA	NA	NA
3/18/2015	Column Thickness	15.75	24.30	10.50	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	705.93	708.46	679.51	NA	NA	NA	NA
4/10/2015	Column Thickness	15.75	24.30	10.50	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	705.93	708.46	679.51	NA	NA	NA	NA
5/16/2015	Column Thickness	15.75	24.30	10.50	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	705.93	708.46	679.51	NA	NA	NA	NA
6/4/2015	Column Thickness	15.75	24.30	10.50	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	705.93	708.46	679.51	NA	NA	NA	NA
7/18/2015	Column Thickness	15.75	24.70	10.10	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	706.33	708.06	679.51	NA	NA	NA	NA
8/10/2015	Column Thickness	15.55	24.90	10.00	9.90	Dry	Dry	Dry	NI
	Leachate Elevation	711.22	706.53	707.96	679.21	NA	NA	NA	NA
9/22/2015	Column Thickness	15.75	25.00	10.20	9.90	Dry	Dry	Dry	NI
	Leachate Elevation	711.42	706.63	708.16	679.21	NA	NA	NA	NA
10/2/2015	Column Thickness	15.35	25.20	10.30	10.00	Dry	Dry	Dry	NI
	Leachate Elevation	711.02	706.83	708.26	679.31	NA	NA	NA	NA
11/18/2015	Column Thickness	15.25	25.00	10.10	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	710.92	706.63	708.06	679.51	NA	NA	NA	NA
12/2/2015	Column Thickness	15.35	24.90	10.40	10.20	Dry	Dry	Dry	NI
	Leachate Elevation	711.02	706.53	708.36	679.51	NA	NA	NA	NA

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Clinton County Sanitary Landfill - East
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		North MSWLF Unit			South MSWLF Unit				
Date	Leachate well	LMW-2A	LMW-3A	LMW-4A	LMW-5A/5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1
	TOC Elevation	727.42	716.83	718.46	723.51	743.76	692.92	715.84	NM
	Total Depth	31.8	35.2	20.5	54.2	39.6	9.0	46.0	65.6
1/4/2016	Column Thickness	14.75	24.90	10.50	13.20	Dry	Dry	Dry	NI
	Leachate Elevation	710.42	706.53	708.46	682.51	NA	NA	NA	NA
2/8/2016	Column Thickness	14.45	25.20	10.30	12.20	Dry	Dry	Dry	NI
	Leachate Elevation	710.12	706.83	708.26	681.51	NA	NA	NA	NA
3/7/2016	Column Thickness	14.55	24.70	10.00	10.20	Dry	0.40	Dry	NI
	Leachate Elevation	710.22	706.33	707.96	679.51	NA	684.32	NA	NA
4/4/2016	Column Thickness	14.35	24.90	10.50	10.20	Dry	1.00	Dry	NI
	Leachate Elevation	710.02	706.53	708.46	679.51	NA	684.92	NA	NA
5/2/2016	Column Thickness	14.75	25.00	10.50	10.20	Dry	1.20	Dry	NI
	Leachate Elevation	710.42	706.63	708.46	679.51	NA	685.12	NA	NA
6/1/2016	Column Thickness	14.45	25.20	10.50	A	Dry	4.70	Dry	NI
	Leachate Elevation	710.12	706.83	708.46	A	NA	688.62	NA	NA
7/14/2016	Column Thickness	17.05	22.00	10.50	A	Dry	7.00	Dry	NI
	Leachate Elevation	712.72	703.63	708.46	A	NA	690.92	NA	NA
8/15/2016	Column Thickness	M	22.00	11.50	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	703.63	709.46	A	704.76	NA	NA	NA
9/13/2016	Column Thickness	M	22.30	12.50	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	703.93	710.46	A	704.76	NA	NA	NA
10/16/2016	Column Thickness	M	22.20	12.00	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	703.83	709.96	A	704.76	NA	NA	NA
11/1/2016	Column Thickness	M	22.40	12.50	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.03	710.46	A	704.76	NA	NA	NA
12/3/2016	Column Thickness	M	22.40	12.10	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.03	710.06	A	704.76	NA	NA	NA
1/6/2017	Column Thickness	M	22.70	12.50	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.33	710.46	A	704.76	NA	NA	NA
2/15/2017	Column Thickness	M	22.40	12.10	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.03	710.06	A	704.76	NA	NA	NA
3/8/2017	Column Thickness	M	22.40	12.10	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.03	710.06	A	704.76	NA	NA	NA
4/5/2017	Column Thickness	M	22.60	12.50	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.23	710.46	A	704.76	NA	NA	NA
5/6/2017	Column Thickness	M	22.70	12.50	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.33	710.46	A	704.76	NA	NA	NA
6/29/2017	Column Thickness	M	22.70	12.30	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.33	710.26	A	704.76	NA	NA	NA
7/3/2017	Column Thickness	M	22.70	12.50	A	0.58	Dry	Dry	NI
	Leachate Elevation	M	704.33	710.46	A	704.76	NA	NA	NA
8/16/2017	Column Thickness	M	22.20	12.50	A	0.28	Dry	Dry	NM
	Leachate Elevation	M	703.83	710.46	A	704.46	NA	NA	NA
9/28/2017	Column Thickness	M	22.70	12.20	A	0.28	Dry	Dry	NM
	Leachate Elevation	M	704.33	710.16	A	704.46	NA	NA	NA
10/5/2017	Column Thickness	M	22.60	12.30	A	0.18	Dry	Dry	NM
	Leachate Elevation	M	704.23	710.26	A	704.36	NA	NA	NA
11/27/2017	Column Thickness	M	22.80	12.50	A	0.58	Dry	Dry	NM
	Leachate Elevation	M	704.43	710.46	A	704.76	NA	NA	NA
12/1/2017	Column Thickness	M	22.90	12.30	A	0.58	Dry	Dry	NM
	Leachate Elevation	M	704.53	710.26	A	704.76	NA	NA	NA

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Clinton County Sanitary Landfill - East
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		North MSWLF Unit			South MSWLF Unit				
Date	Leachate well	LMW-2A	LMW-3A	LMW-4A	LMW-5A/5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1
	TOC Elevation	727.42	716.83	718.46	723.51	743.76	692.92	715.84	NM
	Total Depth	31.8	35.2	20.5	54.2	39.6	9.0	46.0	65.6
1/16/2018	Column Thickness	M	22.60	12.10	A	0.58	Dry	Dry	0.04
	Leachate Elevation	M	704.23	710.06	A	704.76	NA	NA	NA
2/13/2018	Column Thickness	M	22.60	12.50	A	0.58	Dry	Dry	0.05
	Leachate Elevation	M	704.23	710.46	A	704.76	NA	NA	NA
3/12/2018	Column Thickness	M	22.80	11.90	A	0.58	Dry	Dry	0.04
	Leachate Elevation	M	704.43	709.86	A	704.76	NA	NA	NA
4/22/2018	Column Thickness	M	22.60	11.90	A	0.58	Dry	Dry	0.03
	Leachate Elevation	M	704.23	709.86	A	704.76	NA	NA	NA
5/18/2018	Column Thickness	M	22.60	12.20	A	0.58	Dry	Dry	0.04
	Leachate Elevation	M	704.23	710.16	A	704.76	NA	NA	NA
6/10/2018	Column Thickness	M	22.80	12.10	A	0.58	Dry	Dry	0.46
	Leachate Elevation	M	704.43	710.06	A	704.76	NA	NA	NA
7/1/2018	Column Thickness	M	NM	NM	A	NM	NM	NM	0.69
	Leachate Elevation	M	NA	NA	A	NA	NA	NA	NA
8/1/2018	Column Thickness	M	NM	NM	A	NM	NM	NM	0.70
	Leachate Elevation	M	NA	NA	A	NA	NA	NA	NA
9/13/2018	Column Thickness	17.05	21.30	11.90	1.07	1.28	2.10	NM	0.68
	Leachate Elevation	712.72	702.93	709.86	694.15	705.46	686.02	NA	NA
10/9/2018	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.82
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
11/16/2018	Column Thickness	16.85	22.00	11.80	0.97	1.18	2.00	NM	NM
	Leachate Elevation	712.52	703.63	709.76	694.05	705.36	685.92	NA	NA
12/1/2018	Column Thickness	NM	NM	NM	NM	NM	NM	NM	NM
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
1/10/2019	Column Thickness	16.95	22.20	11.90	0.47	1.58	2.10	NM	0.24
	Leachate Elevation	712.62	703.83	709.86	693.55	705.76	686.02	NA	NA
2/27/2019	Column Thickness	17.05	Frozen	11.80	0.27	0.38	2.00	NM	0.47
	Leachate Elevation	712.72	NA	709.76	693.35	704.56	685.92	NA	NA
3/15/2019	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.43
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
4/7/2019	Column Thickness	16.75	22.60	11.50	0.37	1.38	1.80	NM	0.36
	Leachate Elevation	712.42	704.23	709.46	693.45	705.56	685.72	NA	NA
5/7/2019	Column Thickness	16.85	22.40	11.00	0.07	1.48	2.00	NM	0.39
	Leachate Elevation	712.52	704.03	708.96	693.15	705.66	685.92	NA	NA
6/3/2019	Column Thickness	17.15	25.20	11.30	Dry	1.48	2.20	NM	0.36
	Leachate Elevation	712.82	706.83	709.26	NA	705.66	686.12	NA	NA
7/15/2019	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.31
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
8/15/2019	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.28
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
9/15/2019	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.25
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
10/15/2019	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.24
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
11/16/2019	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.22
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
12/1/2019	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.21
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA

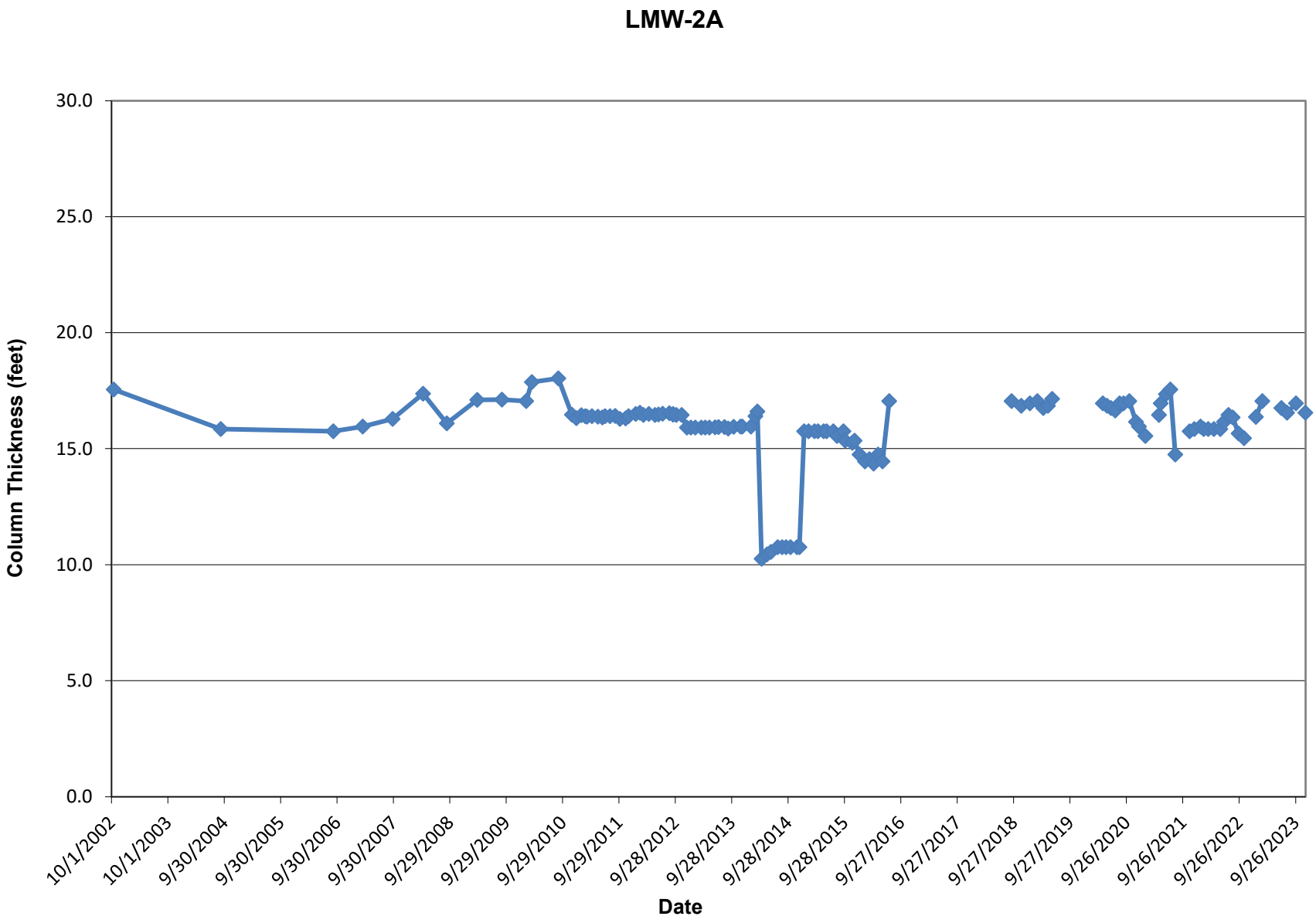
Attachment B
Historical Leachate Piezometer Column Thicknesses and Elevations
Clinton County Sanitary Landfill - East
Permit No. 23-SDP-01-74P
Project No. 27223133.24

		North MSWLF Unit			South MSWLF Unit				
Date	Leachate well	LMW-2A	LMW-3A	LMW-4A	LMW-5A/5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1
	TOC Elevation	727.42	716.83	718.46	723.51	743.76	692.92	715.84	NM
	Total Depth	31.8	35.2	20.5	54.2	39.6	9.0	46.0	65.6
1/10/2020	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.20
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
2/27/2020	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.19
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
3/15/2020	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.16
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
4/26/2020	Column Thickness	16.95	25.10	11.20	0.47	1.28	2.50	NM	0.15
	Leachate Elevation	712.62	706.73	709.16	693.55	705.46	686.42	NA	NA
5/24/2020	Column Thickness	16.85	25.00	11.20	0.07	12.18	2.30	NM	0.14
	Leachate Elevation	712.52	706.63	709.16	693.15	716.36	686.22	NA	NA
6/19/2020	Column Thickness	16.75	25.20	11.20	0.37	12.08	2.50	NM	0.14
	Leachate Elevation	712.42	706.83	709.16	693.45	716.26	686.42	NA	NA
7/16/2020	Column Thickness	16.65	24.90	11.20	0.07	11.98	2.40	NM	0.13
	Leachate Elevation	712.32	706.53	709.16	693.15	716.16	686.32	NA	NA
8/13/2020	Column Thickness	16.95	25.30	11.30	1.57	12.38	2.60	NM	0.12
	Leachate Elevation	712.62	706.93	709.26	694.65	716.56	686.52	NA	NA
9/8/2020	Column Thickness	16.95	25.00	11.70	1.07	9.58	NM	NM	0.15
	Leachate Elevation	712.62	706.63	709.66	694.15	713.76	NA	NA	NA
10/15/2020	Column Thickness	17.05	22.10	13.20	Dry	0.58	NM	NM	0.15
	Leachate Elevation	712.72	703.73	711.16	NA	704.76	NA	NA	NA
11/27/2020	Column Thickness	16.15	22.60	11.50	Dry	Dry	NM	NM	0.27
	Leachate Elevation	711.82	704.23	709.46	NA	NA	NA	NA	NA
12/16/2020	Column Thickness	15.95	25.00	10.70	Dry	Dry	NM	NM	NM
	Leachate Elevation	711.62	706.63	708.66	NA	NA	NA	NA	NA
1/27/2021	Column Thickness	15.55	27.40	9.70	Dry	Dry	NM	NM	NM
	Leachate Elevation	711.22	709.03	707.66	NA	NA	NA	NA	NA
2/27/2021	Column Thickness	NM	NM	NM	NM	NM	NM	NM	NM
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
3/15/2021	Column Thickness	NM	NM	NM	NM	NM	NM	NM	NM
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
4/24/2021	Column Thickness	16.45	23.10	12.10	Dry	14.98	NM	NM	NM
	Leachate Elevation	712.12	704.73	710.06	NA	719.16	NA	NA	NA
5/6/2021	Column Thickness	16.95	22.40	11.00	Dry	0.58	NM	NM	NM
	Leachate Elevation	712.62	704.03	708.96	NA	704.76	NA	NA	NA
6/9/2021	Column Thickness	17.35	22.70	11.20	Dry	4.18	NM	NM	NM
	Leachate Elevation	713.02	704.33	709.16	NA	708.36	NA	NA	NA
7/7/2021	Column Thickness	17.55	23.10	11.50	Dry	6.08	Dry	NM	NM
	Leachate Elevation	713.22	704.73	709.46	NA	710.26	NA	NA	NA
8/9/2021	Column Thickness	14.75	23.60	13.60	Dry	7.18	Dry	NM	NM
	Leachate Elevation	710.42	705.23	711.56	NA	711.36	NA	NA	NA
9/8/2021	Column Thickness	NM	NM	NM	NM	NM	NM	NM	NM
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
10/15/2021	Column Thickness	NM	NM	NM	NM	NM	NM	NM	Dry
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
11/10/2021	Column Thickness	15.75	NM	11.00	Dry	25.08	Dry	NM	NM
	Leachate Elevation	711.42	NA	708.96	NA	729.26	NA	NA	NA
12/10/2021	Column Thickness	15.85	NM	11.00	Dry	0.38	Dry	NM	NM
	Leachate Elevation	711.52	NA	708.96	NA	704.56	NA	NA	NA

Attachment B
Historical Leachate Piezometer Column Thicknesses and Elevations
Clinton County Sanitary Landfill - East
Permit No. 23-SDP-01-74P
Project No. 27223133.24

		North MSWLF Unit			South MSWLF Unit				
Date	Leachate well	LMW-2A	LMW-3A	LMW-4A	LMW-5A/5AR	LMW-5B	LPZ-0	LPZ-1	LPZ-E1
	TOC Elevation	727.42	716.83	718.46	723.51	743.76	692.92	715.84	NM
	Total Depth	31.8	35.2	20.5	54.2	39.6	9.0	46.0	65.6
1/18/2022	Column Thickness	15.95	NM	10.30	Dry	Dry	Dry	NM	NM
	Leachate Elevation	711.62	NA	708.26	NA	NA	NA	NA	NA
2/8/2022	Column Thickness	15.85	NM	10.20	Dry	Dry	Dry	NM	NM
	Leachate Elevation	711.52	NA	708.16	NA	NA	NA	NA	NA
3/10/2022	Column Thickness	15.85	NM	10.20	Dry	Dry	Dry	NM	NM
	Leachate Elevation	711.52	NA	708.16	NA	NA	NA	NA	NA
4/15/2022	Column Thickness	15.85	NM	11.70	Dry	1.48	Dry	NM	NM
	Leachate Elevation	711.52	NA	709.66	NA	705.66	NA	NA	NA
5/27/2022	Column Thickness	15.85	NM	11.70	0.07	1.58	Dry	NM	NM
	Leachate Elevation	711.52	NA	709.66	693.15	705.76	NA	NA	NA
6/19/2022	Column Thickness	16.15	NM	10.50	0.07	2.98	Dry	NM	NM
	Leachate Elevation	711.82	NA	708.46	693.15	707.16	NA	NA	NA
7/19/2022	Column Thickness	16.45	NM	10.30	0.37	2.78	Dry	NM	NM
	Leachate Elevation	712.12	NA	708.26	693.45	706.96	NA	NA	NA
8/15/2022	Column Thickness	16.35	NM	10.10	Dry	2.68	Dry	NM	Dry
	Leachate Elevation	712.02	NA	708.06	NA	706.86	NA	NA	NA
9/22/2022	Column Thickness	15.65	NM	10.80	0.47	24.88	Dry	NM	Dry
	Leachate Elevation	711.32	NA	708.76	693.55	729.06	NA	NA	NA
10/15/2022	Column Thickness	15.45	NM	11.00	Dry	25.28	Dry	NM	Dry
	Leachate Elevation	711.12	NA	708.96	NA	729.46	NA	NA	NA
11/10/2022	Column Thickness	NM	NM	NM	NM	NM	NM	NM	Dry
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
12/10/2022	Column Thickness	NM	NM	NM	NM	NM	NM	NM	Dry
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
1/12/2023	Column Thickness	16.37	NM	13.91	0.29	2.19	Dry	NM	Dry
	Leachate Elevation	712.04	NA	711.87	693.37	706.37	NA	NA	NA
2/23/2023	Column Thickness	17.05	NM	13.64	Dry	2.17	Dry	NM	Dry
	Leachate Elevation	712.72	NA	711.60	NA	706.35	NA	NA	NA
3/10/2023	Column Thickness	NM	NM	NM	NM	NM	NM	NM	Dry
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
4/15/2023	Column Thickness	NM	NM	NM	NM	NM	NM	NM	Dry
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
5/27/2023	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.07
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	716.83
6/26/2023	Column Thickness	16.75	NM	12.50	Dry	2.78	Dry	NM	0.06
	Leachate Elevation	712.42	NA	710.46	NA	706.96	NA	NA	716.83
7/19/2023	Column Thickness	NM	NM	NM	NM	NM	NM	NM	0.06
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	NA
8/2/2023	Column Thickness	16.55	23.20	12.50	Dry	16.58	Dry	7.10	0.05
	Leachate Elevation	712.22	704.83	710.46	NA	720.76	NA	716.83	716.83
9/29/2023	Column Thickness	16.95	22.80	11.60	0.27	10.48	Dry	NM	0.05
	Leachate Elevation	712.62	704.43	709.56	693.35	714.66	NA	NA	716.83
10/15/2023	Column Thickness	NM	NM	NM	NM	NM	NM	NM	1.60
	Leachate Elevation	NA	NA	NA	NA	NA	NA	NA	716.83
11/29/2023	Column Thickness	16.55	23.20	11.90	0.37	2.28	Dry	NM	5.60
	Leachate Elevation	712.22	704.83	709.86	706.22	706.46	NA	NA	716.83

Notes: Liquid levels are measured by the contract operator.
NA - Not Available
NM - Not Measured
NI - Not Installed
D - Damaged Well
W - Well Destroyed
M - Well Unable to be Located
A - Abandoned


LMW-2A
Column Thickness (feet)
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25.0
20.0
15.0
10.0
5.0
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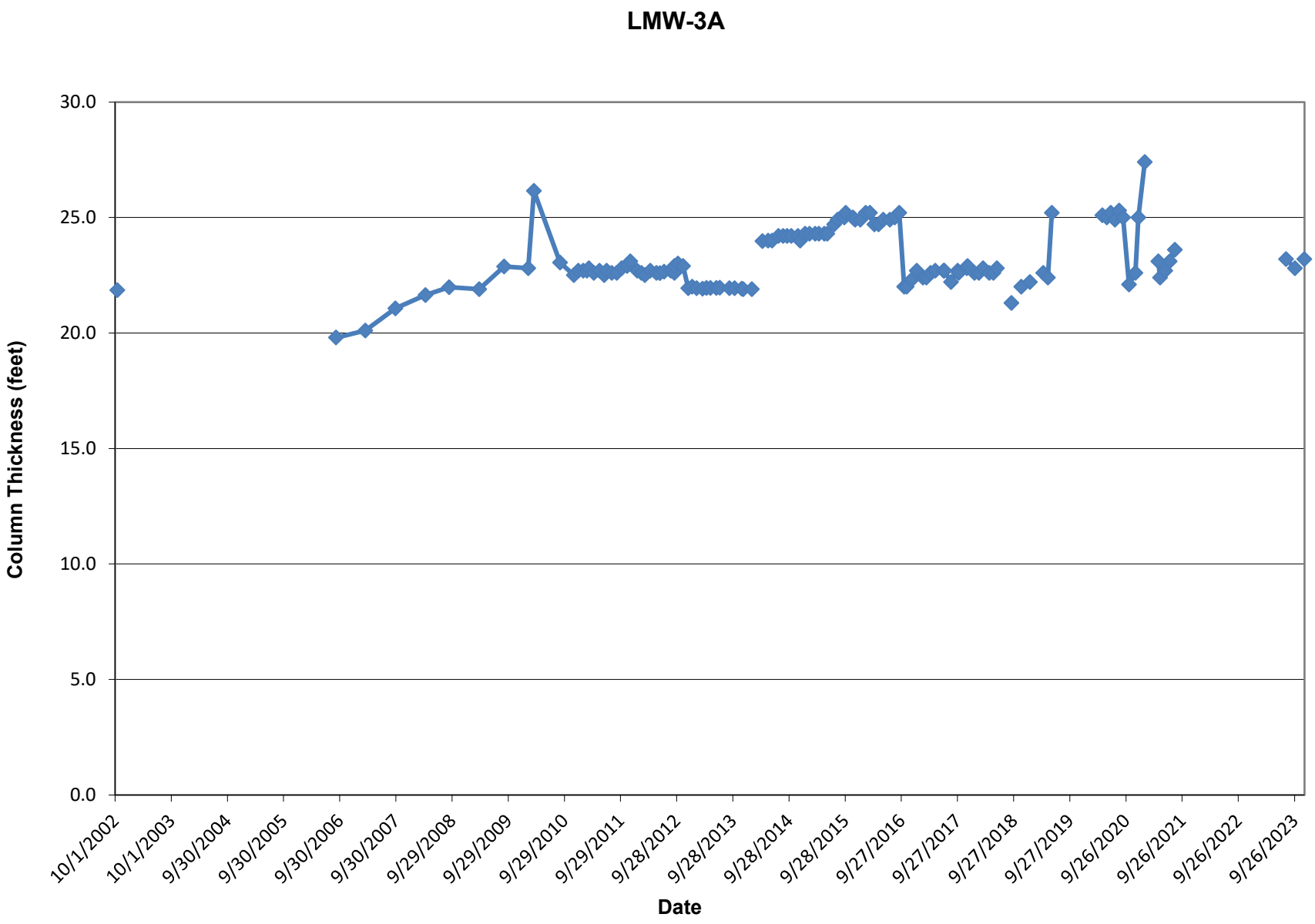
10/1/2002
10/1/2003
9/30/2004
9/30/2005
9/30/2006
9/30/2007
9/29/2008
9/29/2009
9/29/2010
9/29/2011
9/28/2012
9/28/2013
9/28/2014
9/28/2015
9/27/2016
9/27/2017
9/27/2018
9/27/2019
9/26/2020
9/26/2021
9/26/2022
9/26/2023
Date


LMW-3A
Column Thickness (feet)
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25.0
20.0
15.0
10.0
5.0
0.0
10/1/2002
10/1/2003
9/30/2004
9/30/2005
9/30/2006
9/30/2007
9/29/2008
9/29/2009
9/29/2010
9/29/2011
9/28/2012
9/28/2013
9/28/2014
9/28/2015
9/27/2016
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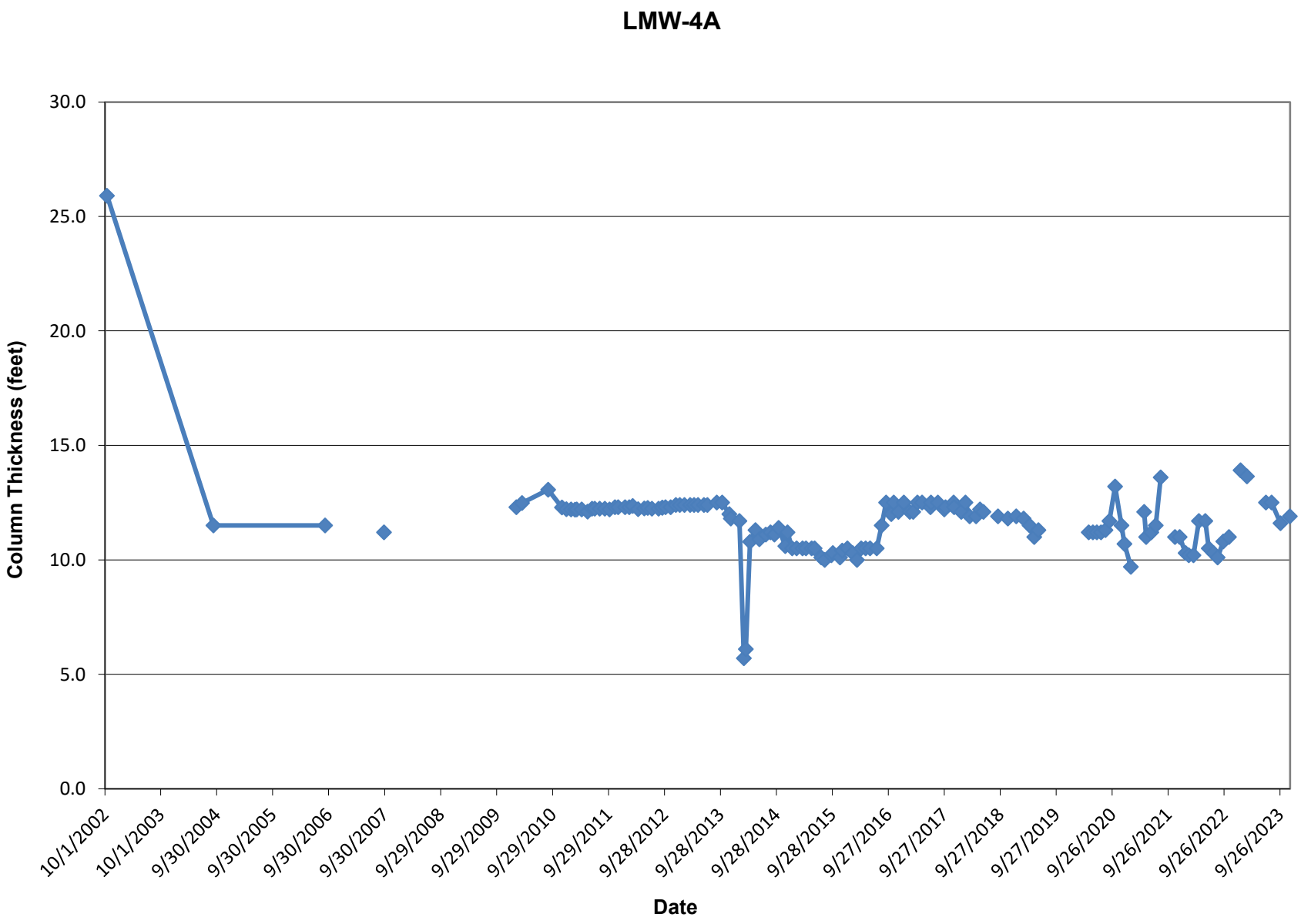
9/27/2018
9/27/2019
9/26/2020
9/26/2021
9/26/2022
9/26/2023
Date


LMW-4A
Column Thickness (feet)
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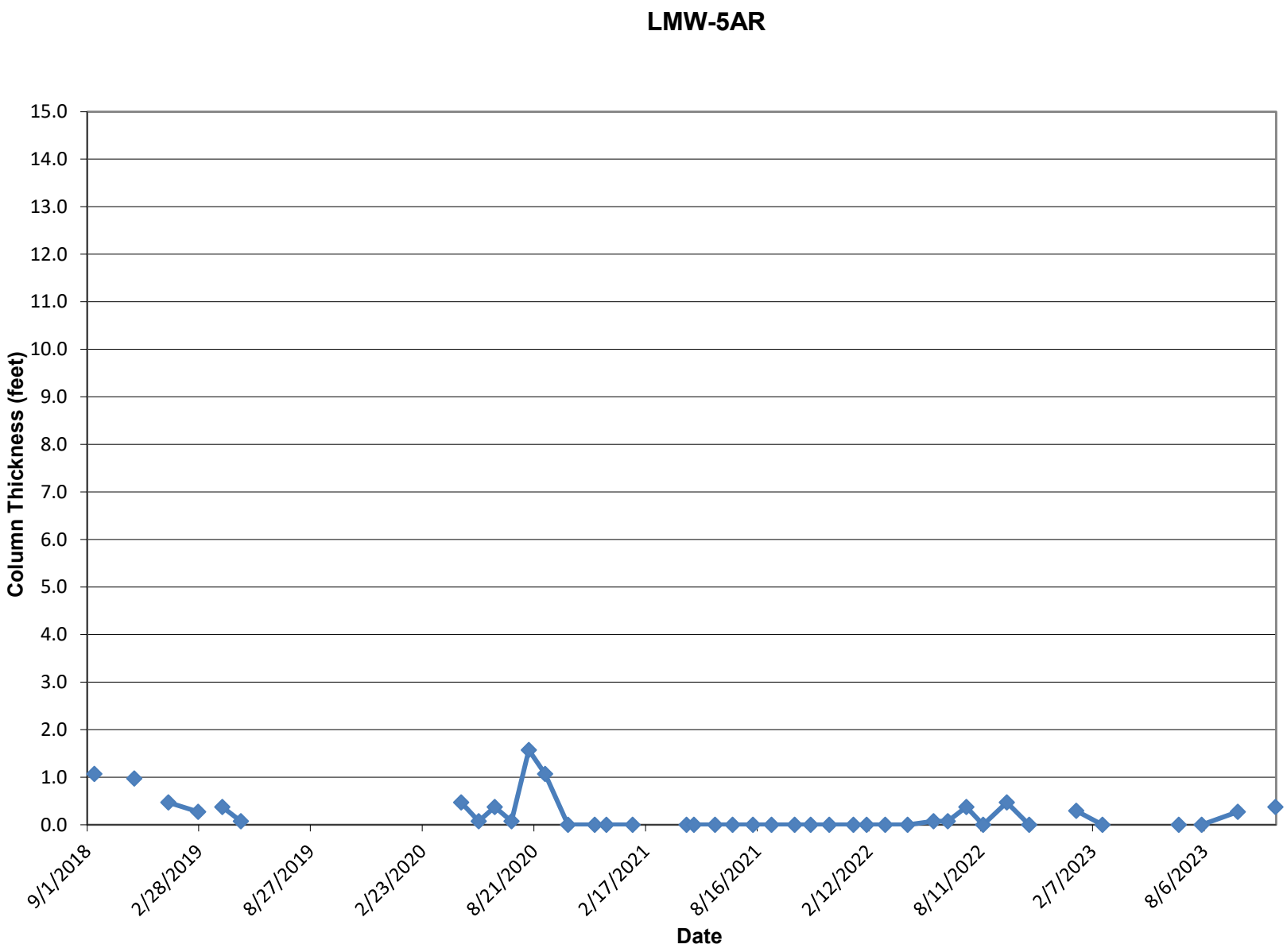
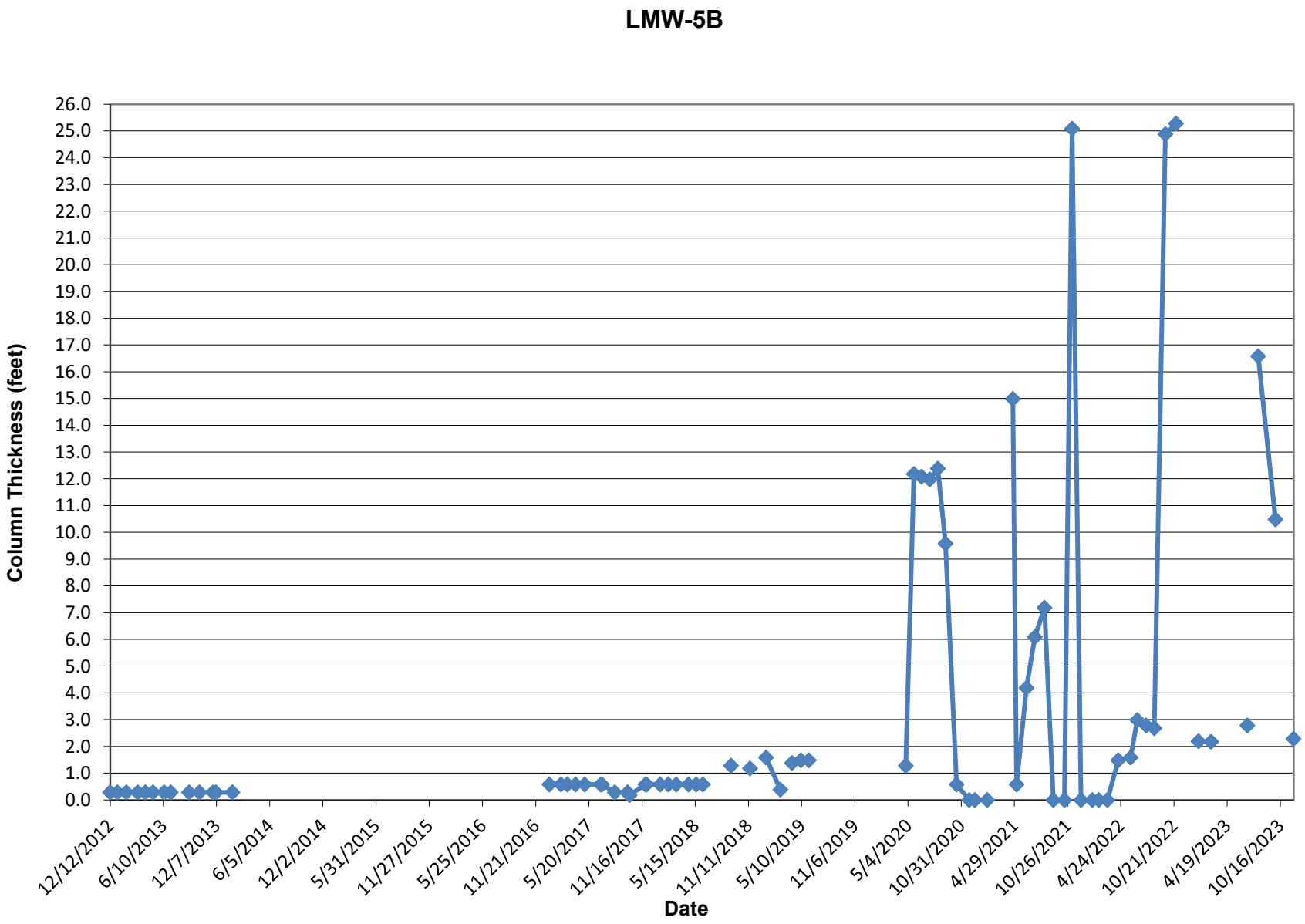
15.0
10.0
5.0
0.0
10/1/2002
10/1/2003
9/30/2004
9/30/2005
9/30/2006
9/30/2007
9/29/2008
9/29/2009
9/29/2010
9/29/2011
9/28/2012
9/28/2013
9/28/2014
9/28/2015
9/27/2016
9/27/2017
9/27/2018
9/27/2019
9/26/2020
9/26/2021
9/26/2022
9/26/2023
Date


LMW-5AR
Column Thickness (feet)
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
9/1/2018
2/28/2019
8/27/2019
2/23/2020
8/21/2020
2/17/2021
8/16/2021
2/12/2022
8/11/2022
2/7/2023
8/6/2023
Date


LMW-5B
Column Thickness (feet)
26.0
25.0
24.0
23.0
22.0
21.0
20.0
19.0
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
12/12/2012
6/10/2013
12/7/2013
6/5/2014
12/2/2014
5/31/2015
11/27/2015
5/25/2016
11/21/2016
5/20/2017
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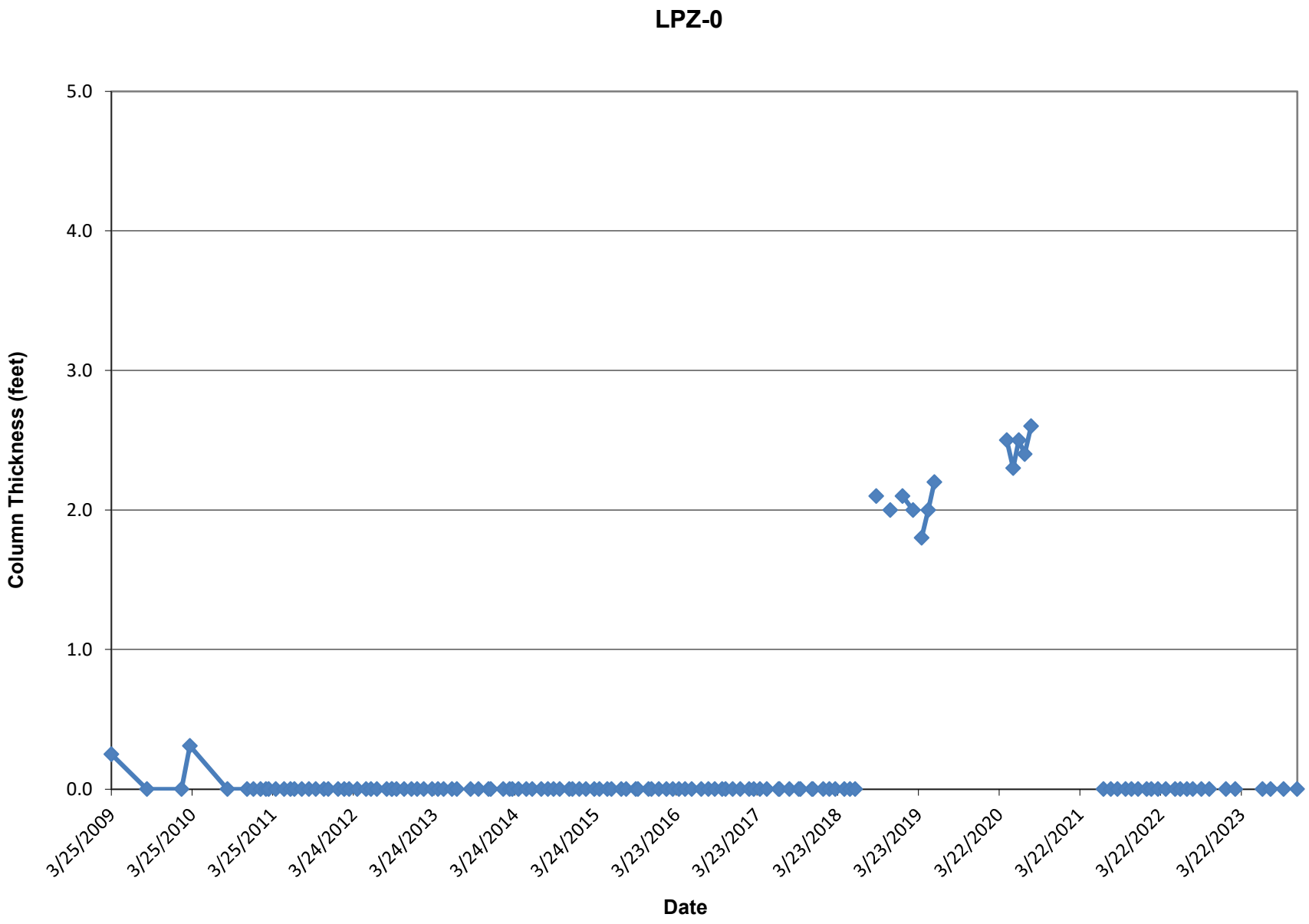
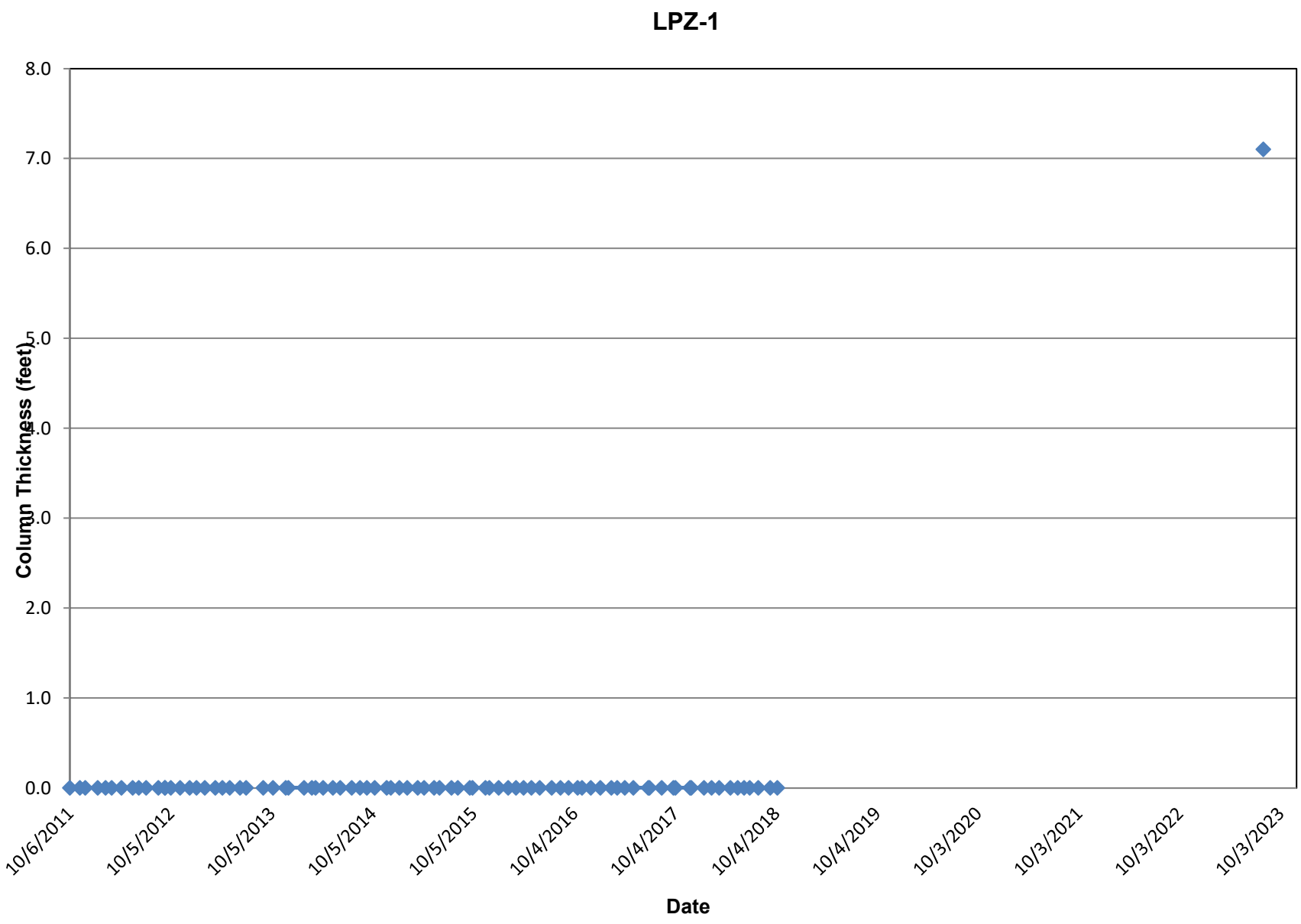
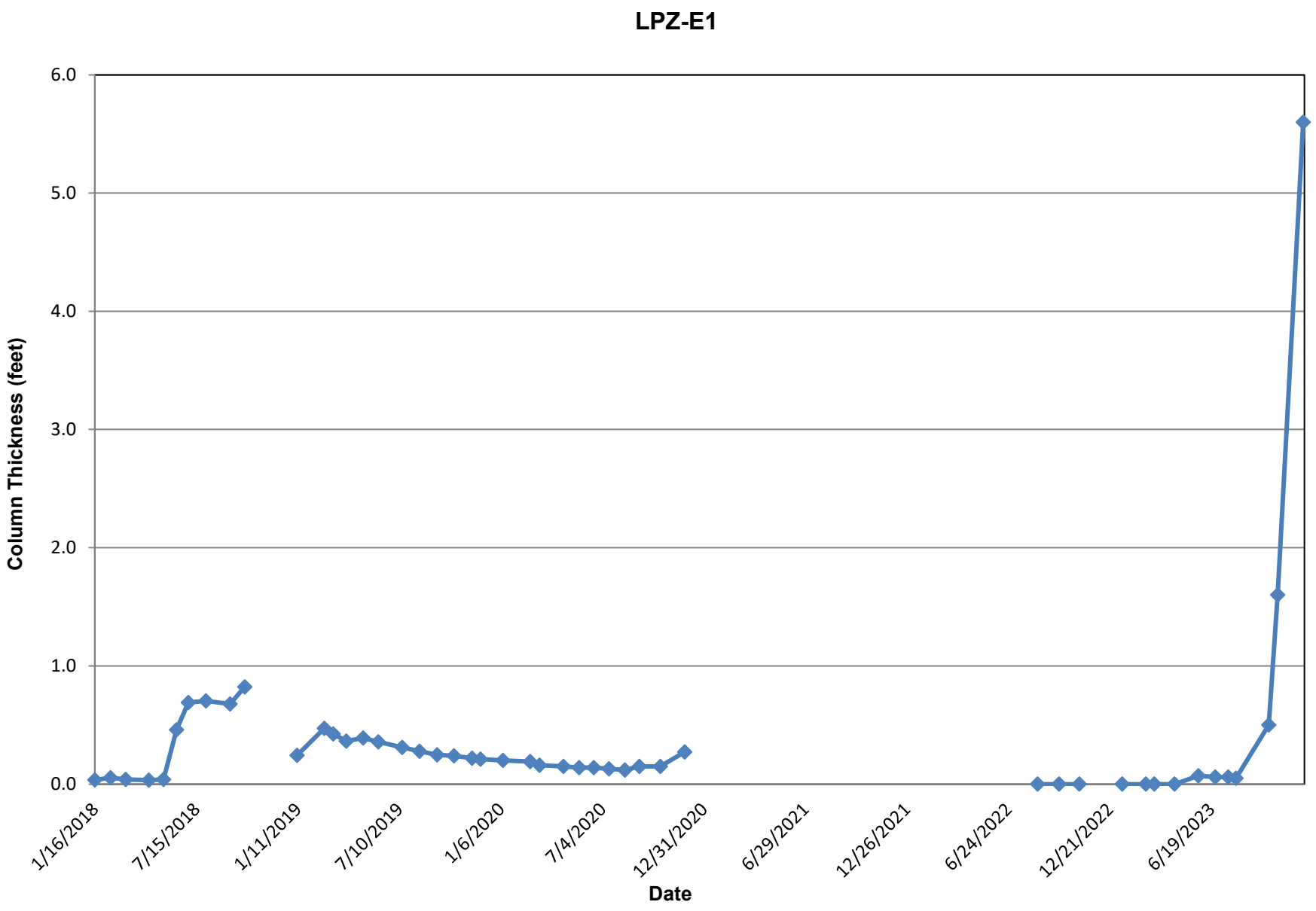
5/15/2018
11/11/2018
5/10/2019
11/6/2019
5/4/2020
10/31/2020
4/29/2021
10/26/2021
4/24/2022
10/21/2022
4/19/2023
10/16/2023
Date


LPZ-0
Column Thickness (feet)
5.0
4.0
3.0
2.0
1.0
0.0
3/25/2009
3/25/2010
3/25/2011
3/24/2012
3/24/2013
3/24/2014
3/24/2015
3/23/2016
3/23/2017
3/23/2018
3/23/2019
3/22/2020
3/22/2021
3/22/2022
3/22/2023
Date


LPZ-1
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Column Thickness (feet)
10/6/2011
10/5/2012
10/5/2013
10/5/2014
10/5/2015
10/4/2016
10/4/2017
10/4/2018
10/4/2019
10/3/2020
10/3/2021
10/3/2022
10/3/2023
Date


LPZ-E1
Column Thickness (feet)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1/16/2018
7/15/2018
1/11/2019
7/10/2019
1/6/2020
7/4/2020
12/31/2020
6/29/2021
12/26/2021
6/24/2022
12/21/2022
6/19/2023
Date

Appendix H

2023 Landfill Gas Annual Report

Gas Monitoring Summary
2023 Gas Monitoring Report
Clinton County Sanitary Landfill - East
Permit No. 23-SDP-01-74P

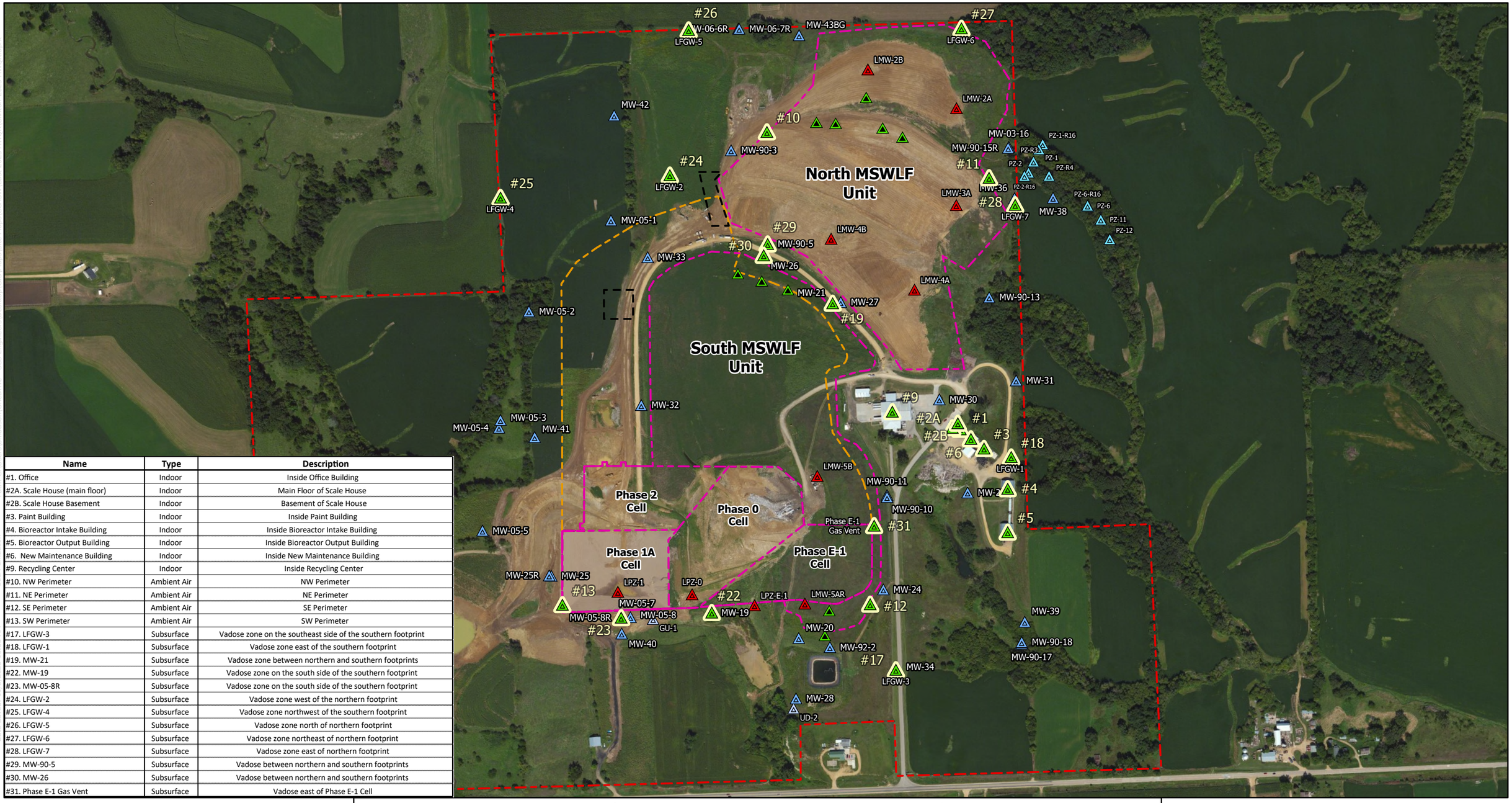
Monitoring Points			Methane Results (% LEL)							
Name	Type	Description	3/20/2023 - S (Y/N)		6/21/2023 - S (Y/N)		8/14/2023 - S (Y/N)		10/6/2023 -S (Y/N)	
#1. Office	Indoor	Inside Office Building	0		0		0		0	
#2A. Scale House (main floor)	Indoor	mg/L	0		0		0		0	
#2B. Scale House Basement	Indoor	Basement of Scale House	0		0		0		0	
#3. Paint Building	Indoor	Inside Paint Building	0		0		0		0	
#4. Bioreactor Intake Building	Indoor	Inside Bioreactor Intake Building	0		0		0		0	
#5. Bioreactor Output Building	Indoor	Inside Bioreactor Output Building	0		0		0		0	
#6. New Maintenance Building	Indoor	Inside New Maintenance Building	0		0		NM		0	
#9. Recycling Center	Indoor	Inside Recycling Center	0		7		0		0	
#17. LFGW-3	Subsurface	Vadose zone on the southeast side of the southern footprint	0	N	0	N	0	N	0	N
#18. LFGW-1	Subsurface	Vadose zone east of the southern footprint	0	N	0	N	0	N	0	N
#19. MW-21	Subsurface	Vadose zone between northern and southern footprints	>100	N	>100	N	46	N	>100	N
#22. MW-19	Subsurface	Vadose zone on the south side of the southern footprint	0	N	0	N	0	N	0	N
#23. MW-05-8R	Subsurface	Vadose zone on the south side of the southern footprint	0	N	0	N	0	N	0	N
#24. LFGW-2	Subsurface	Vadose zone west of the northern footprint	0	Y	0	N	0	N	0	N
#25. LFGW-4	Subsurface	Vadose zone northwest of the southern footprint	0	N	0	N	0	N	0	N
#26. LFGW-5	Subsurface	Vadose zone north of northern footprint	0	N	0	N	0	N	0	N
#27. LFGW-6	Subsurface	Vadose zone northeast of northern footprint	0	N	0	N	0	N	0	N
#28. LFGW-7	Subsurface	Vadose zone east of northern footprint	0	N	0	N	0	N	0	N
#29. MW-90-5	Subsurface	Vadose between northern and southern footprints	0	Y	0	Y	0	Y	0	Y
#30. MW-26	Subsurface	Vadose between northern and southern footprints	>100	N	>100	N	0	N	>100	N
#31 Phase E-1 Gas Vent	Subsurface	Vadose zone venting waste from original southern footprint	>100		57		>100		>100	

S(Y/N) - Was screen submerged, yes or no or blank is non-applicable

NM - Not measured. The building was inaccessible during the monitoring event.

The monitoring points with methane exceedances during this reporting period, monitoring points MW-21 (#19) and MW-26 (#30), are not located in close proximity to the property boundary. After methane exceedances during the 2011 reporting period, bracketing subsurface monitoring points LFGW-4 (#25), LFGW-5 (#26), LFGW-6 (#27), and LFGW-7 (#28) were installed near the property boundary. These points measured 0% of the LEL during each of the 2023 monitoring events; therefore, an action level exceedance did not occur.

Monitoring of the Phase E-1 Gas Vent (#31) for methane was approved in lieu of annual air sampling as part of the corrective action groundwater monitoring program (CAMP) in the revised permit dated July 29, 2022 (Doc #103747).



Name	Type	Description
#1. Office	Indoor	Inside Office Building
#2A. Scale House (main floor)	Indoor	Main Floor of Scale House
#2B. Scale House Basement	Indoor	Basement of Scale House
#3. Paint Building	Indoor	Inside Paint Building
#4. Bioreactor Intake Building	Indoor	Inside Bioreactor Intake Building
#5. Bioreactor Output Building	Indoor	Inside Bioreactor Output Building
#6. New Maintenance Building	Indoor	Inside New Maintenance Building
#9. Recycling Center	Indoor	Inside Recycling Center
#10. NW Perimeter	Ambient Air	NW Perimeter
#11. NE Perimeter	Ambient Air	NE Perimeter
#12. SE Perimeter	Ambient Air	SE Perimeter
#13. SW Perimeter	Ambient Air	SW Perimeter
#17. LFGW-3	Subsurface	Vadose zone on the southeast side of the southern footprint
#18. LFGW-1	Subsurface	Vadose zone east of the southern footprint
#19. MW-21	Subsurface	Vadose zone between northern and southern footprints
#22. MW-19	Subsurface	Vadose zone on the south side of the southern footprint
#23. MW-05-8R	Subsurface	Vadose zone on the south side of the southern footprint
#24. LFGW-2	Subsurface	Vadose zone west of the northern footprint
#25. LFGW-4	Subsurface	Vadose zone northwest of the southern footprint
#26. LFGW-5	Subsurface	Vadose zone north of northern footprint
#27. LFGW-6	Subsurface	Vadose zone northeast of northern footprint
#28. LFGW-7	Subsurface	Vadose zone east of northern footprint
#29. MW-90-5	Subsurface	Vadose between northern and southern footprints
#30. MW-26	Subsurface	Vadose between northern and southern footprints
#31. Phase E-1 Gas Vent	Subsurface	Vadose east of Phase E-1 Cell

SCS ENGINEERS
environmental consultants and contractors

Methane Monitoring Network

Legend

- Methane Monitoring Location
- Monitoring Well
- Groundwater Underdrain
- Groundwater Piezometer
- Leachate Monitoring Location
- Gas Vent
- Landfill Gas Monitoring Point
- Petroleum Contaminated Soils Area
- Approximate Future Waste Boundary
- Approximate Property Boundary
- Cell Boundary
- Phase Boundaries
- Approximate Current Waste Boundary

Clinton County Sanitary Landfill
East MSWLF Unit
Clinton, Iowa
Project No: 27223133.24
Drawing Date: October 2023

Figure 1

N W E S

0 260 520 1,040 1,560 Feet

GEODATA: Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community

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