

2023 Annual Water Quality Report

Continental Cement CKD Monofill Landfill
Buffalo, Iowa
IDNR Landfill Permit Number 82-SDP-16-97P

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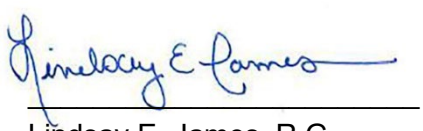
BLACKSTONE ENVIRONMENTAL

November 30, 2023

2023 ANNUAL WATER QUALITY REPORT
CONTINENTAL CEMENT CKD MONOFILL LANDFILL
BUFFALO, IOWA

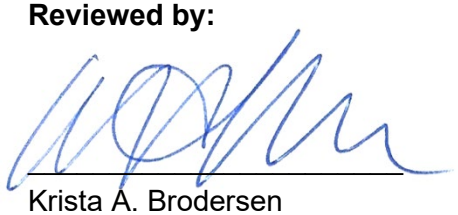
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For the purposes of this rule, a "qualified groundwater scientist" means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater 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.

EXECUTIVE SUMMARY

Period of Report Coverage

This Annual Water Quality Report (AWQR) summarizes the results from the March 2023 and September 2023 semi-annual groundwater monitoring events for the Continental Cement Company, LLC (Continental) Cement Kiln Dust (CKD) Monofill (Site). Semi-annual sample collection was conducted by Blackstone Environmental, Inc. (Blackstone) personnel on March 20 and 21, 2023 and on September 25 and 26, 2023. The stope well, MW-2CR, was sampled on May 8, 2023 during a temporary shutdown of the kilns located at the neighboring Linwood facility.

Report Priority

None

Site Status and Applicable Rules

Continental currently operates a monofill under IDNR Permit Number 82-SDP-16-97P. A portion of the monofill has been closed under Permit Number 82-SDP-15-96C. The monofill is used for the disposal of CKD material resulting from the cement manufacturing processes. A Site Topographic Vicinity Map showing the property and surrounding area is provided as Figure 1. The approximately 88 acres of the property with and the existing monitoring well network are included as Figures 2A and 2B, respectively.

The sampling and data analysis was conducted in general accordance with the requirements under Section 567 Chapter 115.26 of the Iowa Administrative Code (IAC) and the approved Revised Hydrologic Monitoring System Plan (HMSP) prepared by Blackstone and dated April 19, 2021.

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Acronyms/Abbreviations:

AWQR = Annual Water Quality Report
bgs = below ground surface
Blackstone = Blackstone Environmental, Inc.
°C = Celsius
Continental = Continental Cement Company, LLC.
CCV = Continuing Calibration Verification
CKD = Cement Kiln Dust
CLP = Contract Laboratory Program
DO = Dissolved Oxygen
Eurofins = Eurofins Scientific
GBZ = Groundwater Bearing Zone
GWPS = Groundwater Protection Standard
HMSP = Hydrologic Monitoring System Plan
IAC = Iowa Administrative Code
IDNR = Iowa Department of Natural Resources
LCS = Laboratory Control Samples
msl = mean sea level
MCL = USEPA Maximum Contaminant Level
mg/L = milligrams per Liter
MS = Matrix Spike
MSD = Matrix Spike Duplicate
NPDES = National Pollutant Discharge Elimination System
QC = Quality Control
PL = Prediction Limit
RL = Reporting Limit
RAMP = Remedial Action Mitigation Plan
RPD = Relative Percent Difference
SCADA = Supervisory Control and Data Acquisition
Site = CKD Monofill
SPLP = Synthetic Precipitation Leaching Procedure
SWS = IDNR Statewide Standard for a protected groundwater source
SSI = Statistically Significant Increase
TCLP = Toxic Characteristic Leaching Procedure
µg/L = micrograms per Liter
µmhos/cm = micromhos per centimeter
USEPA = United States Environmental Protection Agency

1.0 SITE BACKGROUND

1.1 Site Location and Setting

The Continental CKD Monofill is located within a portion of Continental's former rock quarry at the Continental facility located in the Southeast Quarter of Section 23, Township 77 North, Range 02 East, in Scott County, Iowa. The Landfill is located approximately 1.3 miles east/northeast of the City of Buffalo in Scott County, Iowa, and approximately 700 feet north of the Mississippi River. Site plans are included as Figures 1, 2A, and 2B.

The topography in the area of the Monofill consists of hilly terrain sloping generally southward toward the Mississippi River floodplain. The base elevation of the quarry near the monofill is approximately 490 feet msl. Surface elevations of the closed and active portions of the monofill range from approximately 590 to 610 feet msl.

A quarry sump is used to control surface water runoff and to dewater active quarry operation areas. Water is pumped from the quarry sump and discharged to the Mississippi River under a NPDES Permit.

1.2 Hydrogeologic Setting

Local stratigraphy consists of basin fill deposits from the Middle to Lower Devonian and Upper Silurian marine sequences. Some regions of Scott County also have Lower Pennsylvania outcrops. Regional dip of the strata is expected to be gently dipping to the southwest/west. Bedrock in the region of the Site consists of units of the Cedar Valley Group, Wapsipinicon Group, Gower Formation, and Scotch Grove Formation (in descending order).

Groundwater at the Site is contained within the regional Silurian-Devonian aquifer. This aquifer is confined by the Lime Creek Formation in the upper Devonian and the Maquoketa Formation in the upper Ordovician. In the east/northeastern portion of Iowa, the Lime Creek Formation has been eroded and the Silurian-Devonian aquifer is unconfined. Due to the Site being located within a river valley, the aquifer is locally expected to be mature with higher secondary porosity from carbonate chemical erosion and generally will have higher well yields and faster recovery. The aquifer is generally expected to drain into the Mississippi river.

Historically, groundwater has been monitored by wells in three GBZs on the Site: the Upper GBZ (Cedar Valley), the Middle GBZ (Devonian), and the Lower GBZ (Silurian). Review of available information and literature appears to support that the Otis Formation may be acting as a leaky confining unit, allowing connectivity between the Lower GBZ and the Middle GBZ. As discussed in the Revised Hydrogeologic Monitoring System Plan and based on review of available information and literature, groundwater potentiometric surface maps, and geochemical data, it

was recommended that the Middle and Lower GBZ be treated as a single monitorable unit identified as the Deep Zone. The Upper GBZ is referred to as the Shallow Zone.

1.3 Groundwater Monitoring Network

The current groundwater monitoring system for the Landfill consists of 19 groundwater monitoring wells including MW-1A, MW-1B, MW-2A, MW-3L, MW-4, MW-4L, MW-5, MW-7, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-16L, MW-18, MW-19, MW-20, and MW-21 which assess the Shallow and Deep groundwater zones.

There are nine leachate lysimeter monitoring points located in the active and closed CKD areas of the Site. Five of the monitoring points are located in the closed CKD monofill including MW-9, MW-10, UL-1, LL-1, and the Leachate Sump. The remaining four monitoring points are located in the active CKD monofill and include UL-2R, LL-2, UL-3R, and LL-3. Leachate lysimeter monitoring points UL-1, UL-2R, and UL-3R monitor the leachate thickness in the upper drainage layer of the leachate collection system. The original UL-2 and UL-3 monitoring points were removed and replaced by UL-2R and UL-3R in September 2022. Leachate lysimeter monitoring points LL-1, LL-2, and LL-3 monitor for groundwater encroachment in the lower drainage layer of the leachate collection system.

A stope well, MW-2CR, is located within an undermined (stope) area associated with the neighboring Linwood mine. MW-2CR cannot be regularly sampled due to the amount of exhaust air released when the well cap is opened. Continental coordinates with Linwood to sample the well during temporary shutdowns of Linwood kilns and/or during a period when exhausts are treated through other emission control equipment.

The groundwater monitoring network is sampled in accordance with the Revised HMSP prepared by Blackstone and dated April 19, 2021. Additional monitoring wells MW-20 and MW-21 were added to the monitoring network as detailed in the Groundwater Monitoring Well Installation Report prepared by Blackstone and dated September 27, 2021. Specific details regarding these wells are as follows:

- A comment letter dated February 3, 2021 from IDNR regarding the 2020 Annual Water Quality Report suggested that radial flow conditions may be present in the area of MW-4L. Groundwater contour maps support this conclusion and show that groundwater flow across the Site is radial, however flow is predominantly to the north and west towards, and at least partially contained by, the cone of depression associated with the Quarry Sump. Monitoring well MW-20 was installed in July 2021 to satisfy the requirements of the February 3, 2021 letter from IDNR to define constituent concentrations south of the landfill and specifically in the area south of MW-16L, MW-4L, and MW-3L. Monitoring well MW-20 was also located to better define potential radial flow in the area of MW-4L.

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- Monitoring well MW-21 was installed in July 2021 to satisfy the requirements of Special Provision #4C dated January 29, 2021, requiring that a monitoring well be installed east of the closed, unlined landfill. Monitoring well MW-21 was located in an attempt to avoid the Linwood Mine area and the landfill while still providing a monitoring point to better define the extent and composition of contamination in the area.

Due to an obstruction encountered in MW-3 at approximately 25 feet bgs, Blackstone recommended monitoring well MW-3 be used as a piezometer going forward for the collection of water level data only and monitoring well MW-3L continue to be monitored for groundwater quality purposes. This request was approved by IDNR in correspondence dated April 20, 2022 (2021 AWQR Response Letter, Document #102703)

Monitoring System specifications are provided in Tables 1A and 1B.

2.0 STANDARDS HISTORY

2.1 Groundwater Flow

Static groundwater levels were measured monthly including during the March 2023 and September 2023 sampling events. The field data sheets included in Appendix A show the measured depth to groundwater and total depth (from the top of casing) collected during the sampling activities. The data was then converted to a groundwater elevation using the surveyed top of casing elevation. The measured depths to groundwater and groundwater elevations are summarized in Table 4.

Figure 4A shows the groundwater contours for the Deep Zone based on the groundwater elevations measured during the March 2023 groundwater monitoring event and Figure 4B shows the groundwater contours for the Deep Zone based on the groundwater elevations measured during the September 2023 groundwater monitoring event. Based on the resulting groundwater contour maps, groundwater flow across the Site appears to be radial, however flow is predominantly to the north and west towards the Quarry Sump.

2.2 Groundwater Quality Analysis – 2023 Summary

Inorganic constituents were detected at various concentrations during the March 2023 and September 2023 monitoring events. Groundwater data results were compared to the corresponding USEPA MCLs and SWS. EPA Primary MCLs are the highest level of a contaminant that is allowed in drinking water. Primary MCLs are enforceable drinking water standards.

Of those constituents with MCLs promulgated by the USEPA or SWS for a Protected Groundwater Source, the following were detected in excess of their respective standards during 2023:

- The MCL of 0.01 mg/L for arsenic was exceeded for monitoring points MW-4, MW-11, MW-18, L-Sump, UL-2R, LL-3, and MW-2CR.
- The SWS of 6.0 mg/L for boron was exceeded for monitoring point MW-2CR.
- The MCL of 0.005 mg/L for cadmium was exceeded for monitoring point MW-2CR.
- The MCL of 0.0021 mg/L for cobalt was exceeded for monitoring points MW-5, MW-12, MW-14, MW-19, L-Sump, UL-2R, LL-2, and MW-2CR.
- The MCL of 0.1 mg/L for chromium was exceeded for the L-Sump monitoring point.
- The MCL of 0.015 mg/L for lead was exceeded for monitoring points LL-1 and MW-2CR.
- The SWS of 0.014 mg/L for lithium was exceeded for monitoring points MW-1A, MW-2A, MW-4, MW-5, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-18, MW-20, MW-21, MW-3L, MW-4L, MW-7, MW-16L, MW-19, L-Sump, Q-Sump, LL-1, LL-3, and MW-2CR.
- The SWS of 0.3 mg/L for manganese was exceeded for monitoring points MW-5, MW-12, MW-13, MW-14, L-Sump, UL-2R, LL-2, LL-3, and MW-2CR.
- The SWS of 0.04 mg/L for molybdenum was exceeded for monitoring points MW-4, MW-11, MW-14, MW-18, MW-4L, UL-2R, LL-3, the L-Sump, and MW-2CR.
- The SWS of 0.1 mg/L for nickel was exceeded for monitoring point MW-2CR.
- The MCL of 1.0 mg/L was exceeded for nitrite for MW-2CR.
- The MCL of 10 mg/L was exceeded for nitrate for monitoring point MW-2CR.
- The MCL of 0.05 mg/L for selenium was exceeded for LL-1, UL-2R, L-Sump, and MW-2CR.
- The SWS of 0.035 mg/L for vanadium was exceeded for the L-Sump, UL-2R, and MW-2CR.
- The MCL of 0.002 mg/L for thallium was exceeded for monitoring point MW-5, MW-12, LL-1 and MW-2CR.

Tables 1A and 1B present a summary of the well/constituent pairs exceeding the MCL/SWS during the March and September sample events, respectively. Table 9 provides a summary of the groundwater analytical results from 2018 through present. A copy of the laboratory analytical results provided by Eurofins are located in Appendix B. Arsenic, lithium, manganese, molybdenum, and cobalt contaminant plume maps are included as Figures 6-10, respectively.

2.3 Statistical Methodology

Inter-well statistical comparisons were performed using PLs based on historical data from previous independent sampling events. In accordance with a letter from IDNR dated January 16, 2020, only data obtained since January 2018 was used for the statistical analysis. Statistical analyses were completed in accordance with the approved HMSP and performed using the Sanitas Statistical Software ® (version 10.0.13).

Most statistical tests assume that the data comes from a normal distribution. The USEPA Unified Guidance recommends the Shapiro-Wilks Test to calculate normality of the data. Alternative

procedures for evaluating groundwater contaminant distribution are available for use when the data does not follow a normal distribution; these are termed “non-parametric” methods. Where normal methods use the mean and standard deviation of the data for analysis, non-parametric methods use other descriptors of the data for analysis (e.g., minimum, maximum, median, etc.). Data distribution was calculated using the Shapiro-Wilks Test for normality. The Ladder of Powers was applied for transformed data. If the data were determined to have normal or transformed normal distribution, a parametric PL was calculated. If the data were determined to have a non-normal distribution, a non-parametric PL was constructed. Non-parametric PLs were constructed for data sets containing 51-90 percent non-detect results. A Poisson-based PL was constructed for data with more than 90 percent non-detect results.

Because the distribution of the data varied by constituent, both parametric and non-parametric forms of the Prediction Interval Method were used for the statistical analysis. The interwell PL analysis compares data collected from compliance (downgradient) monitoring wells with data collected from background (upgradient) monitoring wells. Data is used to calculate the interwell PL and is used to determine if a single data point is statistically representative of a group of data points. If a data point exceeds the calculated interwell PL, a SSI is noted.

If a SSI is identified by interwell analysis, then those well-constituent pairs showing SSIs are further evaluated using confidence intervals for those constituents with established GWPSs.

The Mann-Kendall/Sen’s test was performed using the Sanitas ® software to detect potential data trends. These tests are non-parametric and used to detect trends in a time series. Because there are no distribution assumptions and missing data (i.e., non-detects) or irregularly spaced measurements are permitting, these tests are widely used in environmental science.

The Mann-Kendall test can be performed at varied confidence intervals; however, a confidence interval of 95 percent was selected for this analysis. If an upward trend was identified from the results of the Mann-Kendall tests, the Sen’s test was run as it is appropriate for a high percentage of non-detects and is not significantly affected by outliers.

Field pH and specific conductivity readings were “Over Range” in the LL-1 and L-Sump samples during the September 2021 monitoring event. As a result, these readings have been omitted from the statistical database.

Statistical reports are included in Appendix C.

2.3.1 Interwell Prediction Limit Analysis

Interwell PL analysis was prepared for monitoring wells screened within the Shallow and Deep GBZs. Pooled data from upgradient monitoring wells was designated as background and downgradient wells were designated as compliance wells.

Within the Shallow GBZ monitoring well MW-1B was designated as background (upgradient) and monitoring well MW-2A was designated as compliance (downgradient).

Within the Deep GBZ monitoring wells MW-13, MW-15, and MW-7 were designated as background (upgradient) and monitoring wells MW-1A, MW-4, MW-4L, MW-5, MW-11, MW-12, MW-14, MW-16, MW-18, MW-3L, MW-16L, MW-19, MW-20, and MW-21 were designated as compliance (downgradient).

Statistical evaluations were not performed for parameters where the data was non-detect for each well or insufficient background data points exist.

Using the ongoing SSIs and the September 2023 dataset as verification, the following confirmed SSIs were identified as detailed on Table 7:

- MW-2A: Chloride, lithium
- MW-1A: Boron and lithium
- MW-5: Calcium, lithium, magnesium, potassium, conductivity, sulfate, and TDS
- MW-4: Lithium, molybdenum, pH, potassium, conductivity, sulfate, TDS, and carbonate alkalinity
- MW-4L: Lithium, molybdenum, pH, potassium, conductivity, sulfate, TDS, and carbonate alkalinity
- MW-11: Lithium, molybdenum, pH, potassium, conductivity, sulfate, TDS, and carbonate alkalinity
- MW-12: Sulfate
- MW-14: Lithium, magnesium, molybdenum, potassium, conductivity, sulfate, and TDS
- MW-16: Magnesium, potassium, and sulfate
- MW-18: Lithium, molybdenum, pH, potassium, conductivity, sulfate, TDS, and carbonate alkalinity

Using the initial SSIs in the March 2023 dataset and the September 2023 dataset as verification, the following confirmed SSIs were identified as detailed on Table 6:

- MW-4: Fluoride
- MW-4L: Fluoride
- MW-11: Fluoride
- MW-18: Fluoride
- MW-5: pH
- MW-19: pH
- MW-16: TDS

Interwell PL results are included in Appendix C.

2.4 Confidence Interval Analysis

Confidence intervals are constructed from sample data and are designed to contain the mean concentration of an analyte with a designated level of confidence. A minimum of four sample values are required for the construction of parametric confidence intervals and seven values are required for non-parametric confidence intervals. Because data can show either apparent or statistically significant trends, the number of constituents analyzed was limited to the most recent eight sampling events.

For those well-constituent pairs that exceed the PL and are confirmed SSIs or exceed the GWPS further evaluation using confidence intervals was performed. GWPS for parameters requiring confidence interval analysis are those specified in Tables 5A and 5B.

Confidence intervals were prepared for arsenic (MW-4), boron (MW-1A), cobalt (MW-14 and MW-19), lithium (MW-1A, MW-2A, MW-3L, MW-4, MW-4L, MW-5, MW-7, MW-11, MW-13, MW-14, MW-15, MW-16, MW-16L, MW-18, MW-19, MW-20, and MW-21), manganese (MW-5, MW-12 and MW-13), and molybdenum (MW-4, MW-4L, MW-11, MW-14, and MW-18). Each of the results were within the bounds of the upper and lower confidence intervals except for the following well-constituent pairs, which exceeded their respective confidence intervals: boron in MW-1A; lithium in MW-3L, MW-4, MW-5, MW-7, MW-2A, MW-1A, MW-15, MW-16, MW-16L, MW-18, MW-19; molybdenum in MW-4..

The following well-constituent pairs exceeded the compliance limit: arsenic MW-4, lithium MW-1A, MW-2A, MW-3L, MW-4, MW-4L, MW-5, MW-7, MW-13, MW-15, MW-16, MW-16L, MW-18, MW-19, MW-20, MW-21; manganese MW-12, MW-5, and MW-13; and molybdenum MW-4, MW-4L, MW-11, MW-14, and MW-18.

The results are summarized in Tables 7 and 8 and statistical output is provided in Appendix C.

2.4.1 Sen's Slope/Mann Kendall Analysis

The Mann-Kendall/Sen's Slope analysis was used to evaluate data for each constituent well pair. A review of the time series plots along with the results of the trend analyses identified several data trends as follows:

Parameter	Well	Increasing or Decreasing
Antimony	**MW-7**	**Increasing**
Arsenic	MW-4	Decreasing
Barium	MW-1A	Decreasing
Barium	**MW-12**	**Decreasing**
Barium	MW-16	Decreasing
Boron	**MW-7**	**Decreasing**

Parameter	Well	Increasing or Decreasing
Boron	MW-16L	Decreasing
Calcium	**MW-12**	**Decreasing**
Calcium	MW-15	Increasing
Chloride	MW-4	Decreasing
Chloride	MW-5	Increasing
Chloride	MW-11	Decreasing
Chloride	MW-14	Increasing
Chloride	MW-15	Increasing
Chloride	MW-16	Increasing
Copper	MW-16	Increasing
Lithium	MW-4	Decreasing
Lithium	MW-5	Increasing
Lithium	MW-16	Increasing
Lithium	MW-18	Increasing
Magnesium	**MW-15**	**Increasing**
Magnesium	MW-16	Increasing
Manganese	**MW-15**	**Increasing**
Nickel	MW-4	Decreasing
Nickel	**MW-12**	**Decreasing**
Phosphorus	MW-18	Increasing
Potassium	MW-4	Decreasing
Potassium	MW-5	Increasing
Potassium	MW-16	Increasing
Sodium	**MW-1B**	**Decreasing**
Sodium	MW-4	Decreasing
Sodium	MW-5	Increasing
Sodium	MW-2A	Increasing
Sodium	MW-16	Increasing
Sodium	MW-16L	Decreasing
Specific Conductivity	MW-16	Increasing
Sulfate	MW-1A	Decreasing
Sulfate	MW-4	Decreasing
Sulfate	MW-11	Decreasing
Sulfate	**MW-15**	**Increasing**
Sulfate	MW-16	Increasing
Sulfate	MW-18	Decreasing
TDS	MW-4	Decreasing
TDS	MW-19	Decreasing
TDS	MW-16	Increasing

Upgradient wells are bolded.

Mann-Kendall/Sen's Slope analysis results are included in Appendix C. Time series graphs to illustrate trends for parameters in trending wells are also provided in Appendix E of this report.

2.5 Geochemical Evaluation

Groundwater geochemistry was evaluated using piper diagrams. These diagrams present a graphical representation of the major ion compositions of the samples. Piper diagrams are a graphical representation of sample chemistry, showing cations and anions on separate ternary diagrams. The two ternary diagrams are then projected onto a diamond shaped plot that can be used to characterize different water types.

Piper plots were prepared to compare groundwater geochemical parameters calcium, magnesium, potassium, chloride, sulfate, and bicarbonate and carbonate alkalinity to that of the leachate monitoring point samples collected in September 2023.

The geochemical make-up of the groundwater and leachate is presented in the table below. Results of the geochemical evaluation are included in Appendix D.

Well	Gradient Designation	Water Type
MW-1B	Upgradient	Calcium Type – Bicarbonate Type
MW-2A	Downgradient	Calcium Type – Bicarbonate Type
MW-16L	Downgradient	Calcium Type – Bicarbonate Type
MW-21	Downgradient	Calcium Type – Bicarbonate Type
MW-1A	Downgradient	No Dominate Cation – Bicarbonate Type
MW-15	Upgradient	No Dominant Cation – Bicarbonate Type
MW-3L	Sidegradient	Calcium – Bicarbonate Type
Q-Sump	Downgradient	No Dominant Cation – Sulfate Type
MW-4	Downgradient	Sodium or Potassium Type – No Dominant Anion
MW-18	Downgradient	Calcium – No Dominant Anion
MW-11	Downgradient	No Dominant Cation – No Dominant Anion
MW-4L	Downgradient	Sodium or Potassium Type – No Dominant Anion
MW-14	Downgradient	Sodium or Potassium Type – Sulfate Type
MW-12	Upgradient	No Dominant Cation – No Dominant Anion
MW-16	Downgradient	No Dominant Cation – Sulfate Type
MW-7	Upgradient	Calcium – Bicarbonate Type
MW-19	Downgradient	Calcium – Sulfate Type
MW-20	Downgradient	Sodium or Potassium Type – Bicarbonate Type
MW-5	Downgradient	Calcium – No Dominant Anion
MW-13	Downgradient	No Dominant Cation – Bicarbonate Type
L-Sump	Leachate	Sodium or Potassium Type – Chloride Type
LL-3	Leachate	Sodium or Potassium Type – Chloride Type
MW-2CR*	Stope Well	Magnesium Type – Sulfate Type

*Stope well results are from 5/2023

Blackstone prepared piper and stiff plots so that changes in geochemistry could be closely monitored and compared with leachate monitoring point data. The Piper plots show the geochemical make-up of the groundwater in the monitoring wells is variable, which would be expected given the variable lithology within the screened intervals and distance between wells. The leachate monitoring points are predominately of the sodium potassium/chloride type.

Overall, this analysis suggests that the groundwater is geochemically distinct from the leachate. Blackstone recommends continued collection of major cations and anions and preparation of piper plots. This data would be used to evaluate if the groundwater and leachate data appear to be trending closer together with time.

3.0 QUALITY ASSESSMENT / QUALITY CONTROL SUMMARY

3.1 Field Quality Assessment and Quality Control

3.1.1 Sample Collection

Samples were collected from the required monitoring wells with the following exceptions during the March 2023 event: monitoring well UL-1 was dry.

Samples were collected from the required monitoring wells with the following exceptions during the September 2023 event: monitoring wells MW-3, MW-10, UL-1, and UL-3 were dry.

Groundwater samples were collected using HydraSleeve® groundwater samplers. Sample volume was retained for field measurements of pH, specific conductivity, and temperature. It should be noted that MW-2CR was sampled using a bailer due to the construction and venting of the stope. The procedures for obtaining groundwater samples, parameters analyzed, sample preservation, and handling were in accordance with the facility's HMSP.

Lysimeters were sampled with a disposable bailer without purging prior to collecting a sample. Sample volume was retained for field measurements of pH, specific conductivity, and temperature. Field measurements were collected using an Oakton multiparameter probe calibrated according to the manufacturer's specifications. After sampling the lysimeters were purged. Water level measurements were taken after purging and purge volumes were noted on field data sheets entitled "Continental Cement Monitoring Point Sampling Log."

Field Data Sheets are included in Appendix A. Laboratory analytical reports and chain-of-custody documentation are included in Appendix B.

3.1.2 Sample Handling, Transport, and Custody Procedures

Sample containers were provided by the laboratory. Sample bottles for analyses requiring chemical preservation were provided pre-preserved by Eurofins. Sample labels were attached to each sample container at the time of collection. Information provided on the label included the project name, sample type, well number, preservation type, sampling date and time, and the sampler's name.

Immediately after collection, labeled sample containers were placed on ice in an insulated cooler and kept at approximately 4 °C under proper chain-of-custody procedures. The chain-of-custody was placed in a sealed bag and included in the cooler. The chain-of-custody record included the project name, technician's signature, sample locations, sampling date and time, type of sample, number of containers, analyses required, and pH and conductivity for each sample. Blackstone retained a copy of the chain-of-custody. The chain-of-custody is signed and dated upon arrival at the laboratory so that possession and handling of samples can be traced from the time of collection through laboratory analysis. Copies of chain-of-custody forms are included with the laboratory analytical reports in Appendix B.

3.1.3 Equipment Decontamination Procedures

Non-dedicated equipment (electronic water level indicator) used in the monitoring wells was thoroughly cleaned prior to use. Decontamination procedures were also conducted in the field after each well. After the water level was measured at each well, a paper towel soaked in Alconox® and distilled water was used to clean the tape and probe as it was removed from the well.

3.2 Laboratory Quality Assessment / Quality Control

Data quality documentation provided by Eurofins was reviewed for general conformance with guidelines established in *USEPA CLP National Functional Guidelines for Superfund Organic Methods Data Review*, 2020 and *USEPA CLP National Functional Guidelines for Superfund Inorganic Methods Data Review*, 2020. The data packages were not complete CLP packages; consequently, the following information was reviewed: holding times, surrogate recoveries, method blanks, trip blanks, rinsate blanks, field blanks, field duplicates, LCS, laboratory duplicate samples, MS/MSD samples, and CCV standards. On the basis of this review, the data was determined to be acceptable. Specific QC elements are discussed in more detail below.

March 2023

- Holding Times and Preservation – Extractions and analyses were completed within the specified holding times and pH ranges. Sample coolers were sent to the lab and were

received at 0.2°C, 0.3°C, 0.4°C, 0.6°C, and 1.6°C, which are below the recommended limit of 6°C.

- Analytical Reporting Limits – Analytical RLs met project requirements. Dilutions were necessary for chloride and sulfate in most samples as well as beryllium, calcium, copper, manganese, nickel, potassium, bromate, silver, and cadmium in multiple samples to bring analyses into instrument calibration range. All metal analytes in samples MW-1B also required dilutions to bring analyses into instrument calibration range.

- Method Blanks – Analytes were not detected above laboratory RLs in the method blanks.

- LCS – LCS recoveries were within established control limits with the exception of the surrogate analyte dichloroacetic acid in analytical batch 772177 due to matrix interference.

- MS/MSD – Sample MW-2A was used for site-specific MS/MSD for Method SM 2320B. MS and MSD values were below established control limits indicating a potential low bias for total alkalinity in MW-2A results. Samples MW-1B and MW-12 were used for site specific MS/MSD for Method EPA 300.1B. MS and MSD values were below established control limits indicating a potential low bias for bromate in MW-1B and MW-12 sample results and surrogate analyte dichloroacetic acid in MW-1B. Remaining site-specific MS/MSD results were within established control limits. As analytes were in established control limits for LCS, no corrective action was taken.

- Field Duplicates – A field duplicate was collected from MW-19 during the March 2023 sampling event. RPD for detected analytes were calculated between the primary and duplicate sample and the results are summarized in the table below. Calculated RPD values were below 20 percent for all analytes. As these results are qualitative in nature, results are acceptable for the purposes of this evaluation.

March 2023					
Parameter	**Units**	**Duplicate**	**MW-19**	**RPD (%)**	**OK?**
TDS	mg/L	400	404	0.66	YES
Nitrate	mg/L	ND	ND	NA	NA
Barium	mg/L	0.107	0.111	2.46	YES
Boron	mg/L	0.219	0.190	9.24	YES
Calcium	mg/L	85	87.2	1.71	YES
Chloride	mg/L	13.1	13.0	0.51	YES
Cobalt	ug/L	2.96	2.91	1.13	YES
Fluoride	mg/L	0.379	0.357	3.95	YES
Lithium	mg/L	0.0238	0.0238	0.00	YES
Magnesium	mg/L	34.2	34.7	0.97	YES
Manganese	mg/L	0.0601	0.0500	11.87	YES
Potassium	mg/L	4.27	4.54	4.13	YES
Sulfate	mg/L	57.4	57.4	0.00	YES
Nickel	mg/L	0.00522	ND	NA	NA
Sodium	mg/L	21.3	21.4	0.31	YES

September 2023

- Holding Times and Preservation – Extractions and analyses were completed within the specified holding times. Samples MW-11, MW-4L, MW-4, MW-18, LL-1, UL-2R, and LL-3 were above specified pH ranges and were preserved to the appropriate pH in the laboratory. Remaining samples received by the laboratory were within specified pH ranges. Five sample coolers were sent to the lab and were received at 1.6°C, 1.7°C, 1.9°C, 6.0°C, and 3.1°C, which were equal to, or below, the recommended limit of 6°C.

- Analytical Reporting Limits – Analytical RLs met project requirements. Dilutions were necessary for many analytes in most samples to bring analyses into instrument calibration range.

- Method Blanks – Analytes were not detected above laboratory RLs in the method blanks.

- LCS – Bromate LCS and/or LCSD recoveries for method 9056A were above established control limits for all analytical batches indicating a potential high bias in sample results. Sample results were below reporting limits for all samples; therefore, no corrective action was taken. Remaining LCS recoveries were within established control limits.

- MS/MSD – Sample MW-12 was used for site-specific MS/MSD for Method SM 6020B. MS and MSD values were below established control limits indicating a potential low bias for thallium in MW-12 results. MS and MSD values were above established control limits indicating a potential high bias for lithium in MW-12 results. Remaining site-specific

MS/MSD results were within established control limits. As analytes were in established control limits for LCS, no corrective action was taken.

- Field Duplicates – A field duplicate was collected from MW-19 during the September 2023 sampling event. RPD for detected analytes were calculated between the primary and duplicate sample and the results are summarized in the table below. Calculated RPD values were below 20 percent for all analytes. As these results are qualitative in nature, results are acceptable for the purposes of this evaluation.

September 2023					
Parameter	**Units**	**Duplicate**	**MW-19**	**RPD (%)**	**OK?**
TDS	mg/L	396	394	0.34	YES
Nitrate	mg/L	NA	NA	NA	NA
Barium	mg/L	0.118	0.116	1.14	YES
Boron	mg/L	0.275	0.266	2.21	YES
Calcium	mg/L	91.4	91.2	0.15	YES
Chloride	mg/L	2.66	3.1	10.68	YES
Cobalt	ug/L	3.83	3.31	9.48	YES
Fluoride	mg/L	0.216	0.22	1.23	YES
Lithium	mg/L	0.0349	0.0348	0.19	YES
Magnesium	mg/L	41.2	36.4	8.08	YES
Manganese	mg/L	0.0519	0.0417	14.02	YES
Potassium	mg/L	4.38	4.61	3.44	YES
Sulfate	mg/L	31	31.8	1.71	YES
Nickel	mg/L	ND	ND	NA	NA
Sodium	mg/L	21.4	18.1	10.84	YES

4.0 RAMP SUMMARY

A summary of activities associated with the Remedial Action Monitoring Plan (RAMP) completed during 2023 are detailed in Appendix G.

5.0 RECOMMENDATIONS

5.1 Findings

Exceedances of the primary MCL during the 2023 monitoring events were as follows:

- The MCL of 0.01 mg/L for arsenic was exceeded for monitoring points MW-4, MW-11, MW-18, L-Sump, UL-2R, LL-3, and MW-2CR.
- The MCL of 0.005 mg/L for cadmium was exceeded for monitoring point MW-2CR.

- The MCL of 0.0021 mg/L for cobalt was exceeded for monitoring points MW-5, MW-12, MW-14, MW-19, L-Sump, UL-2R, LL-2, and MW-2CR.
- The MCL of 0.1 mg/L for chromium was exceeded for the L-Sump monitoring point.
- The MCL of 0.015 mg/L for lead was exceeded for monitoring points LL-1 and MW-2CR.
- The MCL of 1.0 mg/L was exceeded for nitrite for monitoring pointMW-2CR.
- The MCL of 10 mg/L was exceeded for nitrate for monitoring point MW-2CR.
- The MCL of 0.05 mg/L for selenium was exceeded for LL-1, UL-2R, L-Sump, and MW-2CR.
- The MCL of 0.002 mg/L for thallium was exceeded for monitoring point MW-5, MW-12, LL-1 and MW-2CR.

Exceedances of the SWS during the 2023 monitoring events were as follows:

- The SWS of 6.0 mg/L for boron was exceeded for monitoring point MW-2CR.
- The SWS of 0.014 mg/L for lithium was exceeded for monitoring points MW-1A, MW-2A, MW-4, MW-5, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-18, MW-20, MW-21, MW-3L, MW-4L, MW-7, MW-16L, MW-19, L-Sump, Q-Sump, LL-1, LL-3, and MW-2CR.
- The SWS of 0.3 mg/L for manganese was exceeded for monitoring points MW-5, MW-12, MW-13, MW-14, L-Sump, UL-2R, LL-2, LL-3, and MW-2CR.
- The SWS of 0.04 mg/L for molybdenum was exceeded for monitoring points MW-4, MW-11, MW-14, MW-18, MW-4L, UL-2R, LL-3, L-Sump, and MW-2CR.
- The SWS of 0.1 mg/L for nickel was exceeded for monitoring point MW-2CR.
- The SWS of 0.035 mg/L for vanadium was exceeded for the L-Sump, UL-2R, and MW-2CR.

Using the ongoing and initial SSIs identified in the March 2023 dataset and the September 2023 dataset as verification, 63 confirmed SSIs were identified in monitoring wells including MW-2A, MW-1A, MW-4, MW-4L, MW-5, MW-11, MW-12, MW-14, MW-16, MW-18, and MW-19. Constituents included chloride, boron, calcium, fluoride, lithium, magnesium, molybdenum, pH, potassium, conductivity, sulfate, TDS, and carbonate alkalinity.

Confidence intervals were prepared for those constituents that were verified SSIs, and also had an established MCL or SWS, and for those constituents that exceed the GWPS. Each of the results were within the bounds of the upper and lower confidence intervals except for the following well-constituent pairs, which exceeded their respective confidence intervals: boron in MW-1A; lithium in MW-3L, MW-4, MW-5, MW-7, MW-2A, MW-1A, MW-15, MW-16, MW-16L, MW-18, MW-19; molybdenum in MW-4. The following well-constituent pairs also exceeded the compliance limit: arsenic MW-4, lithium MW-1A, MW-2A, MW-3L, MW-4, MW-4L, MW-5, MW-7, MW-13, MW-15, MW-16, MW-16L, MW-18, MW-19, MW-20, MW-21; manganese MW-12, MW-5, and MW-13; and molybdenum MW-4, MW-4L, MW-11, MW-14, and MW-18.

MW-2CR is located within an undermined (stope) area associated with the neighboring Linwood mine. Exceedances of primary MCLs or SWS at groundwater sampling point MW-2CR included arsenic, boron, cadmium, cobalt, lead, lithium, manganese, molybdenum, nitrate, nitrite, nickel, selenium, thallium, and vanadium. The concentrations of arsenic, boron, cadmium, cobalt, lithium, molybdenum, and vanadium were typically higher at monitoring point MW-2CR than concentrations in any other monitoring points during the 2023 monitoring events at the Continental Facility. This is consistent with observations in 2021 and 2022 and suggests that these constituents originate from the area of MW-2CR.

5.2 Recommendations

Blackstone recommends continued collection of major cations and anions and preparation of piper plots. This data will be used to evaluate if the groundwater and leachate data appear to be trending closer together with time.

Blackstone recommends continued monitoring in accordance with the approved HMSP and RAMP.

6.0 LIMITATIONS

This report was prepared in accordance with that level of skill and care ordinarily exercised by other members of Blackstone's profession practicing in the same locality and under similar conditions when the services were provided. No warranties, express or implied, are intended or made.

TABLES

CONTINENTAL ANNUAL WATER QUALITY REPORT

Table 1A
Monitoring Program Summary - March 2023
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well ID	Location (Easting / Northing)	TOC Elevation	Total Depth	Screen Length (ft)	Formation	Gradient	Current Monitoring Program	Change for Next Event	Constituents w/SSI	Constituents w/SSL	Constituents Exceeding MCL/SWS - March 2023	Total # of Samples in Each Monitoring Program Since January 1, 2018			
												Detection	Assessment	Corrective Action	Informational Purposes Only
Shallow Groundwater Bearing Zone (GBZ) Monitoring Wells															
MW-1B	2408909 / 546267.4	617.759	43.25	20	Cedar Valley	Upgradient	Detection	NC			None	11			
MW-2A	2409895 / 545676.1	589.596	64.62	20	Cedar Valley	Downgradient	Detection	NC	1		None	11			
Deep Groundwater Bearing Zone (GBZ) Monitoring Wells															
MW-1A	2408901 / 546267.5	617.272	142.84	20	Silurian/Devonian	Downgradient	Assessment	NC	2	1	Lithium		11		
MW-4	2408798 / 545106.5	490.901	34.52	NA	Silurian/Devonian	Downgradient	Assessment	NC	8	3	Arsenic, Lithium, Molybdenum		11		
MW-5	2408744 / 545496.4	490.488	27.29	10	Silurian/Devonian	Downgradient	Assessment	NC	7	3	Cobalt, Lithium, Manganese		11		
MW-11	2409216 / 544852	533.597	110.35	20	Silurian/Devonian	Downgradient	Assessment	NC	8	3	Arsenic, Lithium, Molybdenum		11		
MW-12	2408546 / 545902.2	526.758	77.90	20	Silurian/Devonian	Downgradient	Assessment	NC	1	2	Lithium, Manganese		11		
MW-13	2409208 / 544442.7	564.989	99.73	40	Silurian/Devonian	Upgradient	Assessment	NC	0	2	Lithium, Maganese		10		
MW-14	2408613 / 544786.9	488.497	32.11	20	Silurian/Devonian	Downgradient	Assessment	NC	7	4	Cobalt, Lithium, Manganese, Molybdenum		11		
MW-15	2407821 / 543883.2	565.03	135.35	20	Silurian/Devonian	Upgradient	Assessment	NC	0	1	Lithium		11		
MW-16	2408010 / 545084.8	483.558	66.26	20	Silurian/Devonian	Downgradient	Assessment	NC	3	1	Lithium		11		
MW-18	2408823 / 545092.4	490.733	67.38	20	Silurian/Devonian	Downgradient	Assessment	NC	8	2	Lithium, Molybdenum		11		
MW-3L	2410007 / 545144.4	570.355	152.67	10	Silurian/Devonian	Sidegradient	Assessment	NC	0	1	Lithium		11		
MW-4L	2408806 / 545112.6	490.527	61.30	10	Silurian/Devonian	Downgradient	Assessment	NC	8	2	Lithium, Molybdenum		11		
MW-7	2409278 / 547324.6	598.23	185.40	13.5	Silurian/Devonian	Upgradient	Assessment	NC	0	1	Lithium		11		
MW-16L	2408015 / 545093.8	483.22	115.83	20	Silurian/Devonian	Downgradient	Assessment	NC	0	1	Lithium		11		
MW-19	2409193 / 546682.8	615.295	215.75	20	Silurian/Devonian	Downgradient	Assessment	NC	0	2	Cobalt, Lithium		11		
MW-20	2408421.5 / 544089.6	566.99	161.50	20	Silurian/Devonian	Downgradient	Assessment	NC	0	1	Lithium		4		
MW-21	2409274.3 / 546551.5	613.86	222.50	20	Silurian/Devonian	Downgradient	Assessment	NC	0	1	Lithium		4		
Other Monitoring Points															
MW-2CR*	2409765 / 545875.7	592.563	486.12				Stope Well				Arsenic, Boron, Cadmium, Cobalt, Lead, Lithium, Manganese, Molybdenum, Nickel, Selenium, Thallium, Vanadium, Nitrate, Nitrite (sampled in May 2023)				3
Leachate-Sump	2408957 / 545743.8	536.522					Leachate Sump				N/A				10
Quarry-Sump	2407834 / 544450.5	485.636	443.42				Quarry Sump				N/A				9
MW-9	2409452 / 545411.2	596.29	498.49				Leachate Monitoring				N/A				0
MW-10	2409664 / 545430.8	594.155	495.79				Leachate Monitoring				N/A				0
UL-1	2409014 / 545798.2	553.785	544.38				Leachate Monitoring				N/A				1
LL-1	2409020 / 545789.2	553.39	528.79				Leachate Monitoring				N/A				11
UL-2/2R	2408874 / 545928	542.305	535.15				Leachate Monitoring				N/A				10
LL-2	2408869 / 545936	540.732	529.83				Leachate Monitoring				N/A				3
UL-3	2408805 / 546029.2	543.105	535.69				Leachate Monitoring				N/A				5
LL-3	2408810 / 546021.1	541.198	530.47				Leachate Monitoring				N/A				1
MW-3	2410005 / 545114	569.372	101.30	20	Silurian/Devonian	Sidegradient	Water Level Only				None (Water Level Only)				

Notes:
N/A - Not applicable - Annual Sampling Conducted in September 2023
NC - No Change
MCL - Maximum Contaminant Level
SWS - Statewide Standard
SSI - Statistically Significant Increase - Includes only confirmed SSIs
SSL - Statistically Significant Level
TOC - Top of casing
ft - feet
*MW-2CR was sampled May 8, 2023

BLACKSTONE ENVIRONMENTAL

Table 1B
Monitoring Program Summary - September 2023
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well ID	Location (Easting / Northing)	TOC Elevation	Total Depth	Screen Length (ft)	Formation	Gradient	Current Monitoring Program	Change for Next Event	Constituents w/SSI	Constituents w/SSL	Constituents Exceeding MCL/SWS - September 2023	Total # of Samples in Each Monitoring Program Since January 1, 2018			
												Detection	Assessment	Corrective Action	Informational Purposes Only
Shallow Groundwater Bearing Zone (GBZ) Monitoring Wells															
MW-1B	2408909 / 546267.4	617.759	43.249	20	Cedar Valley	Upgradient	Detection	NC				12			
MW-2A	2409895 / 545676.1	589.596	64.616	20	Cedar Valley	Downgradient	Detection	NC	2	1	Lithium	12			
Deep Groundwater Bearing Zone (GBZ) Monitoring Wells															
MW-1A	2408901 / 546267.5	617.272	142.842	20	Silurian/Devonian	Downgradient	Assessment	NC	2	1	Lithium		12		
MW-4	2408798 / 545106.5	490.901	34.521	NA	Silurian/Devonian	Downgradient	Assessment	NC	8	3	Arsenic, Lithium, Molybdenum		12		
MW-5	2408744 / 545496.4	490.488	27.29	10	Silurian/Devonian	Downgradient	Assessment	NC	6	3	Lithium, Manganese, Thallium		12		
MW-11	2409216 / 544852	533.597	110.347	20	Silurian/Devonian	Downgradient	Assessment	NC	6				12		
MW-12	2408546 / 545902.2	526.758	77.898	20	Silurian/Devonian	Downgradient	Assessment	NC	1	4	Cobalt, Lithium, Manganese, Thallium		12		
MW-13	2409208 / 544442.7	564.989	99.729	40	Silurian/Devonian	Upgradient	Assessment	NC	0	2	Lithium, Manganese		11		
MW-14	2408613 / 544786.9	488.497	32.107	20	Silurian/Devonian	Downgradient	Assessment	NC	6	2	Cobalt, Molybdenum		12		
MW-15	2407821 / 543883.2	565.03	135.35	20	Silurian/Devonian	Upgradient	Assessment	NC	0	1	Lithium		12		
MW-16	2408010 / 545084.8	483.558	66.26	20	Silurian/Devonian	Downgradient	Assessment	NC	3	1	Lithium		12		
MW-18	2408823 / 545092.4	490.733	67.383	20	Silurian/Devonian	Downgradient	Assessment	NC	8	3	Arsenic, Lithium, Molybdenum		12		
MW-3L	2410007 / 545144.4	570.355	152.67	10	Silurian/Devonian	Sidegradient	Assessment	NC	0	1	Lithium		12		
MW-4L	2408806 / 545112.6	490.527	61.297	10	Silurian/Devonian	Downgradient	Assessment	NC	7	2	Lithium, Molybdenum		12		
MW-7	2409278 / 547324.6	598.23	185.4	13.5	Silurian/Devonian	Upgradient	Assessment	NC	0	1	Lithium		12		
MW-16L	2408015 / 545093.8	483.22	115.83	20	Silurian/Devonian	Downgradient	Assessment	NC	0	1	Lithium		12		
MW-19	2409193 / 546682.8	615.295	215.745	20	Silurian/Devonian	Downgradient	Assessment	NC	0	2	Cobalt, Lithium		12		
MW-20	2408421.5 / 544089.6	566.99	161.5	20	Silurian/Devonian	Downgradient	Assessment	NC	0	1	Lithium		5		
MW-21	2409274.3 / 546551.5	613.86	222.5	20	Silurian/Devonian	Downgradient	Assessment	NC	0	1	Lithium		5		
Other Monitoring Points															
MW-2CR	2409765 / 545875.7	592.563	486.12				Stope Well				Not Sampled in September 2023				3
Leachate-Sump	2408957 / 545743.8	536.522					Leachate Sump				Arsenic, Chromium, Cobalt, Manganese, Molybdeum, Lithium, Selenium, Vanadium				11
Quarry-Sump	2407834 / 544450.5	485.636	443.42				Quarry Sump				Lithium				10
MW-9	2409452 / 545411.2	596.29	498.49				Leachate Monitoring				None (Dry)				0
MW-10	2409664 / 545430.8	594.155	495.79				Leachate Monitoring				None (Dry)				0
UL-1	2409014 / 545798.2	553.785	544.38				Leachate Monitoring				None (Dry)				1
LL-1	2409020 / 545789.2	553.39	528.79				Leachate Monitoring				Lead, Lithium, Selenium, Thallium				12
UL-2/UL-2R	2408874 / 545928	542.305	535.15				Leachate Monitoring				Arsenic, Cobalt, Manganese, Molybdenum, Selenium, Vanadium				11
LL-2	2408869 / 545936	540.732	529.83				Leachate Monitoring				Cobalt, Manganese				4
UL-3	2408805 / 546029.2	543.105	535.69				Leachate Monitoring				None (Dry)				5
LL-3	2408810 / 546021.1	541.198	530.47				Leachate Monitoring				Arsenic, Lithium, Manganese, Molybdenum				2
MW-3	2410005 / 545114	569.372	101.302	20	Silurian/Devonian	Sidegradient	Water Level Only				None (Water Level Only)				

Notes:
N/A - Not applicable
NC - No Change
MCL - Maximum Contaminant Level
SWS - Statewide Standard
SSI - Statistically Significant Increase - Includes only Confirmed SSIs
SSL - Statistically Significant Level
TOC - Top of casing
ft - feet

Table 2
Monitoring Program Implementation Schedule
Continental Cement Monofill
Permit Number 82-SDP-16-97P

	Recent Sampling		Upcoming Sampling	
Well ID	**3/20/2023 & 3/21/2023**	**9/25/2023 & 9/26/2023**	**3/2024**	**9/2024**
Shallow GBZ Monitoring Wells				
MW-1B	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-2A	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
Deep GBZ Monitoring Wells				
MW-1A	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-4	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-5	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-11	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-12	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-13	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-14	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-15	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-16	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-18	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-3L	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-4L	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-7	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-16L	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-19	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-20	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
MW-21	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals	Indicators/Total Metals
Other Monitoring Points				
MW-2CR*	Indicators/Total Metals*	Indicators/Total Metals*	Indicators/Total Metals*	Indicators/Total Metals*
Leachate-Sump	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
Quarry-Sump	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
MW-9	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
MW-10	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
UL-1	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
LL-1	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
UL-2	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
LL-2	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
UL-3	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals
LL-3	Indicators/Total Metals	Indicators/Total Metals	N/A	Indicators/Total Metals

Notes:
GBZ - Groundwater Bearing Zone
Indicator Parameters - bicarbonate alkalinity, carbonate alkalinity, bromate, calcium, chloride, fluoride, nitrate, nitrite, phosphorus total dissolved solids, and sulfate
Total Metals - aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, lead, lithium magnesium, manganese, molybdenum, nickel, potassium, selenium, silver, sodium, thallium, vanadium, and zinc
*MW-2CR will be sampled pending Linwood shut-down due to IDLH conditions associated with the well
N/A - Annual Leachate Sampling Required

Table 3
Monitoring Well Maintenance and Performance Evaluation Schedule
Continental Cement Monofill
Permit Number 82-SDP-16-97P

	Monitoring Calendar Years	
Compliance	**2023**	**2024**
567 IAC 113.10*2)"f"(1) high and low water levels (monthly monitoring)	Completed	Scheduled
567 IAC 113.10*2)"f"(2) changes in the hydrologic setting and path	Completed	Scheduled
567 IAC 113.10*2)"f"(3) well depths	Completed	Scheduled
567 IAC 113.10*2)"f"(4) well recharge rates and chemistry	Completed*	Scheduled
567 IAC 113.10*2)"f"(1) waste separation from groundwater 113.6(2)"l"	Completed	Scheduled

Notes:
*well recharge rates were not estimated due to the use of HydroSleeve® sampling techniques

Table 4
Monitoring Well Maintenance and Performance Summary and Groundwater Elevations
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well	Top of Casing Elevation	Constructed Total Depth	Screen Interval Elevation		Date of Measurements	
					March 2023	September 2023
Shallow GBZ Monitoring Wells						
MW-1B	617.76	43.24	574.61-594.61	Groundwater Level	23.24	29.65
				Groundwater Elevation	594.52	588.11
				Measured Well Depth	43.28	43.32
				Submerged Screen	No	No
MW-2A	589.60	64.61	525.08-545.08	Groundwater Level	28.33	25.49
				Groundwater Elevation	561.27	564.11
				Measured Well Depth	65.91	64.65
				Submerged Screen	Yes	Yes
Deep GBZ Monitoring Wells						
MW-1A	617.27	142.84	474.53-494.53	Groundwater Level	133.02	135.61
				Groundwater Elevation	484.25	481.66
				Measured Well Depth	146.80	142.72
				Submerged Screen	No	No
MW-3	596.37	101.30	468.17-488.17	Groundwater Level	93.70	Dry
				Groundwater Elevation	502.67	Dry
				Measured Well Depth	102.90	101.35
				Submerged Screen	Yes	Yes
MW-4	490.90	34.52	456.38-490.90	Groundwater Level	5.95	7.91
				Groundwater Elevation	484.95	482.99
				Measured Well Depth	34.36	34.37
				Submerged Screen	No	No
MW-5	490.49	27.29	463.30-473.30	Groundwater Level	3.22	9.62
				Groundwater Elevation	487.27	480.87
				Measured Well Depth	27.28	26.82
				Submerged Screen	Yes	Yes
MW-11	533.60	110.34	423.35-443.35	Groundwater Level	60.93	70.89
				Groundwater Elevation	472.67	462.71
				Measured Well Depth	115.53	113.31
				Submerged Screen	Yes	Yes
MW-12	526.76	77.89	448.96-468.96	Groundwater Level	50.30	53.19
				Groundwater Elevation	476.46	473.57
				Measured Well Depth	72.29	77.98
				Submerged Screen	Yes	Yes
MW-13	564.99	99.72	465.36-505.36	Groundwater Level	60.53	61.41
				Groundwater Elevation	504.46	503.58
				Measured Well Depth	101.45	134.23
				Submerged Screen	Yes	Yes
MW-14	488.50	23.10	456.49-476.49	Groundwater Level	13.30	15.19
				Groundwater Elevation	475.20	473.31
				Measured Well Depth	32.75	32.15
				Submerged Screen	No	No
MW-15	565.03	135.35	429.78-449.78	Groundwater Level	64.55	69.28
				Groundwater Elevation	500.48	495.75

Well	Top of Casing Elevation	Constructed Total Depth	Screen Interval Elevation		Date of Measurements	
					March 2023	September 2023
				Measured Well Depth	138.09	135.95
				Submerged Screen	Yes	Yes
MW-16	483.56	66.26	417.40-437.40	Groundwater Level	10.75	13.53
				Groundwater Elevation	472.81	470.03
				Measured Well Depth	67.58	66.54
				Submerged Screen	Yes	Yes
MW-18	490.73	67.38	423.45-443.45	Groundwater Level	8.50	12.62
				Groundwater Elevation	482.23	478.11
				Measured Well Depth	67.29	67.33
				Submerged Screen	Yes	Yes
MW-3L	570.36	152.67	418.79-438.79	Groundwater Level	94.90	105.52
				Groundwater Elevation	475.46	464.84
				Measured Well Depth	155.90	152.60
				Submerged Screen	Yes	Yes
MW-4L	490.53	61.59	429.33.-449.33	Groundwater Level	38.60	12.60
				Groundwater Elevation	451.93	477.93
				Measured Well Depth	61.36	61.38
				Submerged Screen	Yes	Yes
MW-7	598.23	185.40	412.83-426.33	Groundwater Level	126.08	131.74
				Groundwater Elevation	472.15	466.49
				Measured Well Depth	189.97	185.40
				Submerged Screen	Yes	Yes
MW-16L	483.22	115.83	367.49-387-49	Groundwater Level	11.05	22.02
				Groundwater Elevation	472.17	461.20
				Measured Well Depth	117.80	116.05
				Submerged Screen	Yes	Yes
MW-19	615.3	215.74	399.65-419.65	Groundwater Level	142.81	149.33
				Groundwater Elevation	472.49	465.97
				Measured Well Depth	219.46	NM
				Submerged Screen	Yes	Yes
MW-20	566.99	167.60	404.50-424.50	Groundwater Level	92.26	106.83
				Groundwater Elevation	474.73	460.16
				Measured Well Depth	167.20	NM
				Submerged Screen	Yes	Yes
MW-21	613.86	225.80	391.40-411.4	Groundwater Level	141.46	148.78
				Groundwater Elevation	472.40	465.08
				Measured Well Depth	228.95	NM
				Submerged Screen	Yes	Yes
Stope Monitoring Well						
MW-2CR	592.56	106.44	--	Groundwater Level	NM	NM
				Groundwater Elevation	--	--
				Measured Well Depth	--	--
				Submerged Screen	--	--
Leachate Monitoring Points						
MW-9	596.29	99.98		Groundwater Level	98.28	97.30
				Groundwater Elevation	498.01	498.99
				Measured Well Depth	99.10	97.59
				Submerged Screen		
MW-10	594.16	100.05		Groundwater Level	97.30	Dry

Well	Top of Casing Elevation	Constructed Total Depth	Screen Interval Elevation		Date of Measurements	
					March 2023	September 2023
				Groundwater Elevation	496.86	Dry
				Measured Well Depth	98.10	96.36
				Submerged Screen		
UL-1	553.79	9.61		Groundwater Level	Dry	Dry
				Groundwater Elevation	Dry	Dry
				Measured Well Depth	9.59	9.59
				Submerged Screen		
*LL-1	553.39	24.60		Groundwater Level	21.00 / 21.02	22.92
				Groundwater Elevation	532.39 / 532.37	530.47
				Measured Well Depth	24.60	29.64
				Submerged Screen		
*UL-2R	542.31	10.16		Groundwater Level	8.22 / 8.19	8.85
				Groundwater Elevation	534.09 / 534.12	533.46
				Measured Well Depth	10.16	10.17
				Submerged Screen		
*LL-2	540.73	10.93		Groundwater Level	8.72 / 8.70	7.50
				Groundwater Elevation	532.01 / 532.03	533.23
				Measured Well Depth	10.90	10.90
				Submerged Screen		
*UL-3R	543.11	10.45		Groundwater Level	9.75	Dry
				Groundwater Elevation	533.36	Dry
				Measured Well Depth	10.45	10.35
				Submerged Screen		
LL-3	541.20	10.75		Groundwater Level	9.67 / 9.69	8.52
				Groundwater Elevation	531.53 / 530.45	532.68
				Measured Well Depth	10.71	10.72
				Submerged Screen		
Sump Monitoring Wells						
Leachate Sump	536.52	13.79		Groundwater Level	4.55	10.53
				Groundwater Elevation	531.97	525.99
				Measured Well Depth	NM	NM
				Submerged Screen		
Quarry Sump	485.64	---		Groundwater Level	30.60	30.45
				Groundwater Elevation	455.04	455.19
				Measured Well Depth	NM	NM
				Submerged Screen	n/a	n/a

Notes:

GBZ - Groundwater Bearing Zone

n/a - not applicable

NM - not monitored

*Leachate thickness greater than 1' - corrective action implemented. Line jetting was conducted in April and November 2023.

BLACKSTONE ENVIRONMENTAL

Table 5A
Background and GWPS Summary - March 2023
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Constituent	Units	Samples	Detections	Min*	Max*	Mean*	Background Level	Statistical Test	GWPS	Source
Shallow GBZ Monitoring Wells - Interwell Background MW-1B										
Alkalinity, Bicarb	mg/L	4	4	412	454	425	601.8 / 248.2	Parametric PL		
Alkalinity, Carb	mg/L	4	0	5	20	11.25	31.05	Poisson PL		
Bromate	mg/L	5	1	5	6	5.2	6	Non-P PL		
Calcium	mg/L	11	11	145	340	196.1	340	Non-P PL		
Chloride	mg/L	11	11	7.2	14.2	11.31	19.16	Parametric PL		
Fluoride	mg/L	11	6	0.045	0.5	0.2218	0.6294	Parametric PL		
Nitrate	mg/L	11	2	0.049	1	0.183	1	Non-P PL	10	MCL
Nitrite	mg/L	7	1	0.039	0.1	0.0911	0.1	Non-P PL	1	MCL
Phosphorus	mg/L	11	3	0.039	0.527	0.1349	0.527	Non-P PL	24	SWS
TDS	mg/L	11	11	740	1140	973.5	1344	Parametric PL		
Sulfate	mg/L	11	11	0.5	463	333.1	759	Parametric PL		
pH	SU	11	11	6.53	8.22	7.19	8.756 / 5.624	Parametric PL		
Conductivity	umhos/cm	11	11	960	1538	1268	1839	Parametric PL		
Aluminum	mg/L	11	7	0.012	2.96	0.4567	5.189	Parametric PL		
Antimony	mg/L	11	0	0.00051	0.015	0.003731			0.006	MCL
Arsenic	mg/L	11	2	0.00088	0.01	0.003752	0.01	Non-P PL	0.010	MCL
Barium	mg/L	11	11	0.0523	0.528	0.1168	0.528	Non-P PL	2	MCL
Beryllium	mg/L	11	1	0.00027	0.0016	0.0009218			0.004	MCL
Boron	mg/L	11	3	0.1	0.32	0.1655	0.32	Non-P PL	6	SWS
Cadmium	mg/L	11	2	0.000055	0.005	0.001121	0.005	Non-P PL	0.005	MCL
Chromium	mg/L	11	2	0.0011	0.108	0.01382	0.108	Non-P PL	0.1	MCL
Cobalt	mg/L	11	6	0.000272	0.0213	0.004047	0.03077	Parametric PL	0.0021	SWS
Copper	mg/L	11	3	0.0015	0.155	0.02109	0.155	Non-P PL	1.3	MCL
Lead	mg/L	11	5	0.00011	0.01	0.003203	0.01	Non-P PL	0.015	MCL
Lithium	mg/L	11	3	0.0049	0.0113	0.009437	0.0113	Non-P PL	0.014	SWS
Magnesium	mg/L	11	11	54.1	117	80.58	136.5	Parametric PL		
Manganese	mg/L	11	11	0.00669	1.79	0.2654	2.941	Parametric PL	0.3	SWS
Molybdenum	mg/L	11	3	0.0011	0.02	0.006531	0.02	Non-P PL	0.04	SWS
Nickel	mg/L	11	4	0.00232	0.128	0.01621	0.128	Non-P PL	0.1	SWS
Potassium	mg/L	11	11	4.29	6.95	5.147	7.999	Parametric PL		
Selenium	mg/L	11	2	0.001	0.0168	0.006261	0.0168	Non-P PL	0.05	MCL
Silver	mg/L	11	0	0.00037	0.007	0.001976				
Sodium	mg/L	11	11	10.1	26.4	17.87	36.26	Parametric PL		
Thallium	mg/L	11	0	0.00026	0.02	0.004321			0.002	MCL
Vanadium	mg/L	11	2	0.00085	0.0107	0.005814	0.0107	Non-P PL	0.035	SWS
Zinc	mg/L	11	2	0.01	0.58	0.07464	0.58	Non-P PL	2	SWS
Deep GBZ Monitoring Wells - Interwell Background MW-13, MW-15, and MW-7										
Alkalinity, Bicarb	mg/L	12	12	89	409	320.8	541.4 / 256.3	Parametric PL		
Alkalinity, Carb	mg/L	12	0	5	20	11.25	21.05	Poisson PL		
Bromate	mg/L	11	1	5	500	96.48	125.2	Poisson PL		
Calcium	mg/L	32	32	53.1	473	106.8	473	Non-P PL		
Chloride	mg/L	32	29	1	683	88.27	2042	Parametric PL		
Fluoride	mg/L	32	24	0.0719	0.876	0.4305	0.9318	Parametric PL		
Nitrate	mg/L	32	19	0.046	3.86	0.4911	3.86	Non-P PL	10	MCL
Nitrite	mg/L	14	0	0.039	0.195	0.0895	1.046	Poisson PL	1	MCL
Phosphorus	mg/L	32	10	0.041	2.56	0.1932	2.56	Non-P PL	24	SWS
TDS	mg/L	32	32	234	1680	531.3	1295	Parametric PL		
Sulfate	mg/L	32	32	21.8	196	78.49	183.8	Parametric PL		
pH	SU	32	32	6.9	10.34	7.748	10.34 / 6.9	Non-P PL		
Conductivity	umhos/cm	32	32	532	2550	980.8	2550	Non-P PL		
Aluminum	mg/L	32	21	0.012	4.04	0.3875	4.04	Non-P PL		
Antimony	mg/L	32	4	0.00051	0.015	0.00356	0.015	Non-P PL	0.006	MCL
Arsenic	mg/L	32	2	0.00075	0.01	0.003276			0.010	MCL
Barium	mg/L	32	32	0.0436	0.161	0.0948	0.2083	Parametric PL	2	MCL
Beryllium	mg/L	32	1	0.00027	0.004	0.0009569			0.004	MCL
Boron	mg/L	32	28	0.101	1.04	0.4841	1.04	Non-P PL	6	SWS
Cadmium	mg/L	32	7	0.000039	0.005	0.0009971	0.005	Non-P PL	0.005	MCL
Chromium	mg/L	32	4	0.00098	0.00578	0.00437	0.00578	Non-P PL	0.1	MCL
Cobalt	mg/L	32	23	0.000115	0.00827	0.001913	0.01564	Parametric PL	0.0021	SWS
Copper	mg/L	32	6	0.0015	0.0305	0.00696	0.0305	Non-P PL	1.3	MCL
Lead	mg/L	32	16	0.000132	0.0194	0.003378	0.0194	Non-P PL	0.015	MCL
Lithium	mg/L	32	32	0.0114	0.0659	0.03914	0.07909	Parametric PL	0.014	SWS
Magnesium	mg/L	32	32	8.6	77.6	41.14	79.56	Parametric PL		
Manganese	mg/L	32	32	0.0219	2.42	0.3033	2.401	Parametric PL	0.3	SWS
Molybdenum	mg/L	32	13	0.0011	0.0228	0.006192	0.0228	Non-P PL	0.04	SWS
Nickel	mg/L	32	11	0.0017	0.864	0.03294	0.864	Non-P PL	0.1	SWS
Potassium	mg/L	32	32	3.68	16.7	7.912	15.28	Parametric PL		
Selenium	mg/L	32	1	0.001	0.02	0.006287			0.05	MCL
Silver	mg/L	32	0	0.00037	0.007	0.001913				

Sodium	mg/L	32	32	16	584	76.48	584	Non-P PL		
Thallium	mg/L	32	0	0.00026	0.02	0.003925			0.002	MCL
Vanadium	mg/L	32	5	0.00082	0.0304	0.006407	0.0304	Non-P PL	0.035	SWS
Zinc	mg/L	32	6	0.01	0.307	0.03585	0.307	Non-P PL	2	SWS

Notes:
*Min/Max/Mean calculated based on background well(s) only. For cases of non-detected data, the min/max/mean represents the detection limit.
However, statistical analysis is completed with 1/2 the detection limit.
Background Level (Upper Prediction Limit) assumes March 2023 data as compliance.
Parametric PL - parametric prediction limit
Non-P PL - non-parametric prediction limit
Poisson PL - Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%
MCL - maximum contaminant level
SWS - Statewide Standard
GWPS - Groundwater Protection Standard
mg/L - micrograms per Liter
SU - standard unit
umhos/cm - micromhos per centimeter

BLACKSTONE ENVIRONMENTAL

Table 5B
Background and GWPS Summary - September 2023
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Constituent	Units	Samples	Detections	Min*	Max*	Mean*	Background Level	Statistical Test	GWPS	Source
Shallow GBZ Monitoring Wells - Interwell Background MW-1B										
Alkalinity, Bicarb	mg/L	5	5	394	454	418.8	572.5 / 265.1	Parametric PL		
Alkalinity, Carb	mg/L	5	0	5	20	10	24.46	Poisson PL		
Bromate	mg/L	6	1	5	1000	171	1000	Non-P PL		
Calcium	mg/L	12	12	140	340	191.4	340	Non-P PL		
Chloride	mg/L	12	12	5.9	14.2	10.86	19.57	Parametric PL		
Fluoride	mg/L	12	6	0.045	0.5	0.22	0.5934	Parametric PL		
Nitrate	mg/L	12	2	0.049	1	0.1844	1	Non-P PL	10	MCL
Nitrite	mg/L	8	1	0.039	0.2	0.1047	0.2	Non-P PL	1	MCL
Phosphorus	mg/L	12	3	0.039	0.527	0.132	0.527	Non-P PL	24	SWS
TDS	mg/L	12	12	740	1140	965.8	1315	Parametric PL		
Sulfate	mg/L	12	11	0.5	463	330.8	721.2	Parametric PL		
pH	SU	12	12	6.53	8.22	7.164	8.624 / 5.704	Parametric PL		
Conductivity	umhos/cm	12	12	960	1538	1251	1805	Parametric PL		
Aluminum	mg/L	12	8	0.012	2.96	0.4253	4.737	Parametric PL		
Antimony	mg/L	12	0	0.00051	0.015	0.003587			0.006	MCL
Arsenic	mg/L	12	2	0.00088	0.01	0.003606	0.01	Non-P PL	0.010	MCL
Barium	mg/L	12	12	0.0491	0.528	0.1112	0.528	Non-P PL	2	MCL
Beryllium	mg/L	12	1	0.00027	0.0016	0.0009283			0.004	MCL
Boron	mg/L	10	4	0.1	0.32	0.1609	0.32	Non-P PL	6	SWS
Cadmium	mg/L	12	2	0.000055	0.005	0.001044	0.005	Non-P PL	0.005	MCL
Chromium	mg/L	12	2	0.0011	0.108	0.01309	0.108	Non-P PL	0.1	MCL
Cobalt	mg/L	12	7	0.000272	0.0213	0.003758	0.02742	Parametric PL	0.0021	SWS
Copper	mg/L	12	3	0.0015	0.155	0.01975	0.155	Non-P PL	1.3	MCL
Lead	mg/L	12	5	0.00011	0.01	0.002977	0.01	Non-P PL	0.015	MCL
Lithium	mg/L	12	3	0.0049	0.0113	0.009484	0.0113	Non-P PL	0.014	SWS
Magnesium	mg/L	12	12	54.1	117	78.88	133.3	Parametric PL		
Manganese	mg/L	12	12	0.00669	1.79	0.2505	2.462	Parametric PL	0.3	SWS
Molybdenum	mg/L	12	3	0.0011	0.02	0.006153	0.02	Non-P PL	0.04	SWS
Nickel	mg/L	12	4	0.00232	0.128	0.1527	0.128	Non-P PL	0.1	SWS
Potassium	mg/L	12	12	4.29	6.95	5.209	7.904	Parametric PL		
Selenium	mg/L	12	2	0.001	0.0168	0.006156	0.0168	Non-P PL	0.05	MCL
Silver	mg/L	12	0	0.00037	0.007	0.001895				
Sodium	mg/L	12	12	10.1	26.4	17.39	35.02	Parametric PL		
Thallium	mg/L	12	0	0.00026	0.02	0.004044			0.002	MCL
Vanadium	mg/L	12	2	0.00085	0.0107	0.005746	0.0107	Non-P PL	0.035	SWS
Zinc	mg/L	12	2	0.01	0.58	0.07008	0.58	Non-P PL	2	SWS
Deep GBZ Monitoring Wells - Interwell Background MW-13, MW-15, and MW-7										
Alkalinity, Bicarb	mg/L	15	15	59.4	409	310.6	484.8 / 319.3	Parametric PL		
Alkalinity, Carb	mg/L	15	0	5	20	10	18.8	Poisson PL		
Bromate	mg/L	14	1	5	1000	290.1	337.1	Poisson PL		
Calcium	mg/L	35	35	51.4	473	104.8	473	Non-P PL		
Chloride	mg/L	35	32	1	683	84.5	1736	Parametric PL		
Fluoride	mg/L	35	26	0.0719	0.876	0.3786	0.9102	Parametric PL		
Nitrate	mg/L	35	20	0.046	5.62	0.621	5.62	Non-P PL	10	MCL
Nitrite	mg/L	23	0	0.039	0.2	0.1039	1.078	Poisson PL	1	MCL
Phosphorus	mg/L	35	10	0.041	2.56	0.1852	2.56	Non-P PL	24	SWS
TDS	mg/L	35	35	234	1680	526.5	1237	Parametric PL		
Sulfate	mg/L	35	35	21.8	196	81.42	187.6	Parametric PL		
pH	SU	35	35	6.9	10.34	7.778	10.34 / 6.9	Non-P PL		
Conductivity	umhos/cm	35	35	532	2550	970.3	2550	Non-P PL		
Aluminum	mg/L	35	23	0.012	4.04	0.3662	4.04	Non-P PL		
Antimony	mg/L	35	5	0.00051	0.015	0.003465	0.015	Non-P PL	0.006	MCL
Arsenic	mg/L	35	3	0.00075	0.01	0.003167			0.010	MCL
Barium	mg/L	35	35	0.0436	0.161	0.09316	0.2166	Parametric PL	2	MCL
Beryllium	mg/L	35	1	0.00027	0.004	0.0009606			0.004	MCL
Boron	mg/L	35	31	0.1	1.04	0.4858	1.04	Non-P PL	6	SWS
Cadmium	mg/L	35	7	0.000039	0.005	0.0009288	0.005	Non-P PL	0.005	MCL
Chromium	mg/L	35	4	0.00098	0.00578	0.004424	0.00578	Non-P PL	0.1	MCL
Cobalt	mg/L	35	25	0.000115	0.00827	0.00184	0.01361	Parametric PL	0.0021	SWS
Copper	mg/L	35	6	0.0015	0.0305	0.006792	0.0305	Non-P PL	1.3	MCL
Lead	mg/L	35	17	0.000132	0.0194	0.003169	0.0194	Non-P PL	0.015	MCL
Lithium	mg/L	35	35	0.0114	0.0811	0.04097	0.084	Parametric PL	0.014	SWS
Magnesium	mg/L	35	35	3.7	77.6	40.64	78.38	Parametric PL		
Manganese	mg/L	35	34	0.005	2.42	0.2947	2.864	Parametric PL	0.3	SWS
Molybdenum	mg/L	35	15	0.0011	0.0228	0.006022	0.0228	Non-P PL	0.04	SWS
Nickel	mg/L	35	12	0.0017	0.864	0.03056	0.864	Non-P PL	0.1	SWS
Potassium	mg/L	35	35	3.68	16.7	8.359	16.43	Parametric PL		
Selenium	mg/L	35	1	0.001	0.02	0.006177			0.05	MCL
Silver	mg/L	35	0	0.00037	0.007	0.001835				

Sodium	mg/L	35	35	16	584	74.23	584	Non-P PL		
Thallium	mg/L	35	0	0.00026	0.02	0.003674			0.002	MCL
Vanadium	mg/L	35	5	0.00082	0.0304	0.006287	0.0304	Non-P PL	0.035	SWS
Zinc	mg/L	35	6	0.01	0.307	0.03449	0.307	Non-P PL	2	SWS

Notes:

*Min/Max/Mean calculated based on background well(s) only. For cases of non-detected data, the min/max/mean represents the detection limit.

However, statistical analysis is completed with 1/2 the detection limit.

Background Level (Upper Prediction Limit) assumes September 2023 data as compliance.

Parametric PL - parametric prediction limit

Non-P PL - non-parametric prediction limit

Poisson PL - Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%

MCL - maximum contaminant level

SWS - Statewide Standard

mg/L - micrograms per Liter

SU - standard unit

umhos/cm - micromhos per centimeter

Table 6
Summary of Well/Detected Constituent Pairs with No Immediately Preceding SSIs
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well	Constituent	Units	September 2023 Result	Background Standard
MW-4	Fluoride	mg/L	5.14	0.9102
MW-4L	Fluoride	mg/L	7.35	0.9102
MW-11	Fluoride	mg/L	6.03	0.9102
MW-18	Fluoride	mg/L	7.28	0.9102
MW-5	pH	SU	6.38	10.34
MW-19	pH	SU	6.82	10.34 / 6.9
MW-16	TDS	mg/L	1420	1295

Note:
Data presented on this table represents initial exceedances of the prediction limit identified during March 2023 that were confirmed based on September 2023 data.
No data has been excluded from this analysis.

Table 7
Summary of Ongoing and Newly Identified SSIs
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Initial Exceedance	Resample(s)	5th Background Sample
MW-2A	Chloride	mg/L	34.7	19.57			March 2022	9/2022, 3/2023, 9/2023	34.2
MW-1A	Boron	mg/L	1.22	1.04	1.092	6	March 2022	9/2022, 3/2023, 9/2023	1.05
MW-5	Calcium	mg/L	392*	473			March 2022	9/2022, 3/2023	472
MW-1A	Lithium	mg/L	0.105	0.084	0.0912	0.014	March 2022	9/2022, 3/2023, 9/2023	0.0938
MW-4	Lithium	mg/L	0.447	0.084	0.5122	0.014	March 2022	9/2022, 3/2023, 9/2023	0.883
MW-4L	Lithium	mg/L	0.643	0.084	0.5571	0.014	March 2022	9/2022, 3/2023, 9/2023	0.677
MW-5	Lithium	mg/L	0.103	0.084	0.04924	0.014	March 2022	9/2022, 3/2023, 9/2023	0.0375
MW-11	Lithium	mg/L	<1.0*	0.084	0.5636	0.014	March 2022	9/2022, 3/2023	0.698
MW-2A	Lithium	mg/L	0.0149	0.0113	0.008904	0.014	March 2022	9/2022, 3/2023, 9/2023	0.0103
MW-14	Lithium	mg/L	<0.28*	0.084	0.1689	0.014	March 2022	9/2022, 3/2023	0.192
MW-18	Lithium	mg/L	0.803	0.084	0.5965	0.014	March 2022	9/2022, 3/2023, 9/2023	0.632
MW-5	Magnesium	mg/L	130	78.38			March 2022	9/2022, 3/2023, 9/2023	191
MW-14	Magnesium	mg/L	115	78.38			March 2022	9/2022, 3/2023, 9/2023	113
MW-16	Magnesium	mg/L	88.3	78.38			March 2022	9/2022, 3/2023, 9/2023	79.1
MW-4	Molybdenum	mg/L	0.121	0.0228	0.1341	0.04	March 2022	9/2022, 3/2023, 9/2023	0.201
MW-4L	Molybdenum	mg/L	0.17	0.0228	0.122	0.04	March 2022	9/2022, 3/2023, 9/2023	0.12
MW-11	Molybdenum	mg/L	<0.2*	0.0228	0.1015	0.04	March 2022	9/2022, 3/2023	0.041
MW-14	Molybdenum	mg/L	0.895	0.0228	0.0761	0.04	March 2022	9/2022, 3/2023, 9/2023	0.077
MW-18	Molybdenum	mg/L	0.184	0.0228	0.1615	0.04	March 2022	9/2022, 3/2023, 9/2023	0.19
MW-4	pH	SU	10.46	10.34 / 6.9			March 2022	9/2022, 3/2023, 9/2023	12
MW-4L	pH	SU	10.22*	10.34 / 6.9			March 2022	9/2022, 3/2023	10.73
MW-11	pH	SU	10.75	10.34 / 6.9			March 2022	9/2022, 3/2023, 9/2023	9.93
MW-18	pH	SU	10.9	10.34 / 6.9			March 2022	9/2022, 3/2023, 9/2023	10.46
MW-4	Potassium	mg/L	3150	16.43			March 2022	9/2022, 3/2023, 9/2023	4720
MW-4L	Potassium	mg/L	4660	16.43			March 2022	9/2022, 3/2023, 9/2023	4600
MW-5	Potassium	mg/L	252	16.43			March 2022	9/2022, 3/2023, 9/2023	86.1
MW-11	Potassium	mg/L	5470	16.43			March 2022	9/2022, 3/2023, 9/2023	5720
MW-14	Potassium	mg/L	1670	16.43			March 2022	9/2022, 3/2023, 9/2023	1450
MW-16	Potassium	mg/L	178	16.43			March 2022	9/2022, 3/2023, 9/2023	72.9
MW-18	Potassium	mg/L	5020	16.43			March 2022	9/2022, 3/2023, 9/2023	4210
MW-4	Conductivity	umhos/cm	11450	2550			March 2022	9/2022, 3/2023, 9/2023	16998
MW-4L	Conductivity	umhos/cm	15240	2550			March 2022	9/2022, 3/2023, 9/2023	16322
MW-5	Conductivity	umhos/cm	3282	2550			March 2022	9/2022, 3/2023, 9/2023	3470
MW-11	Conductivity	umhos/cm	12610	2550			March 2022	9/2022, 3/2023, 9/2023	17317
MW-14	Conductivity	umhos/cm	7641	2550			March 2022	9/2022, 3/2023, 9/2023	7925
MW-18	Conductivity	umhos/cm	15380	2550			March 2022	9/2022, 3/2023, 9/2023	15895
MW-4	Sulfate	mg/L	1930	187.6			March 2022	9/2022, 3/2023, 9/2023	3250
MW-4L	Sulfate	mg/L	3280	187.6			March 2022	9/2022, 3/2023, 9/2023	3470
MW-5	Sulfate	mg/L	805	187.6			March 2022	9/2022, 3/2023, 9/2023	1110
MW-11	Sulfate	mg/L	2600	187.6			March 2022	9/2022, 3/2023, 9/2023	3490
MW-12	Sulfate	mg/L	192	187.6			March 2022	9/2022, 3/2023, 9/2023	284
MW-14	Sulfate	mg/L	2590	187.6			March 2022	9/2022, 3/2023, 9/2023	3030
MW-16	Sulfate	mg/L	630	187.6			March 2022	9/2022, 3/2023, 9/2023	426
MW-18	Sulfate	mg/L	3080	187.6			March 2022	9/2022, 3/2023, 9/2023	3330
MW-4	TDS	mg/L	7780	1237			March 2022	9/2022, 3/2023, 9/2023	12800
MW-4L	TDS	mg/L	12400	1237			March 2022	9/2022, 3/2023, 9/2023	11900
MW-5	TDS	mg/L	2510	1237			March 2022	9/2022, 3/2023, 9/2023	2530
MW-11	TDS	mg/L	8980	1237			March 2022	9/2022, 3/2023, 9/2023	12800
MW-14	TDS	mg/L	5980	1237			March 2022	9/2022, 3/2023, 9/2023	6260
MW-18	TDS	mg/L	11000	1237			March 2022	9/2022, 3/2023, 9/2023	11700
MW-4	Alkalinity, Carbonate	mg/L	1410	18.8			March 2022	9/2022, 3/2023, 9/2023	1410
MW-4L	Alkalinity, Carbonate	mg/L	1390	18.8			March 2022	9/2022, 3/2023, 9/2023	1390
MW-11	Alkalinity, Carbonate	mg/L	1400	18.8			March 2022	9/2022, 3/2023, 9/2023	1400
MW-18	Alkalinity, Carbonate	mg/L	1510	18.8			March 2022	9/2022, 3/2023, 9/2023	1510

Notes:
mg/L - milligrams per liter
* September 2023 result is below backround, if confirmed by March 2024 sample SSI will be terminated

Table 8
Summary of Ongoing and Newly Identified SSLs
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	1st Occurrence	Most Recent	Duration
MW-2A	Lithium	mg/L	0.0149	0.01376	0.014	3/2023	3/2023	9/26/2023	
MW-1A	Lithium	mg/L	0.105	0.1031	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-4	Arsenic	mg/L	0.0358	0.1035	0.010	3/18/2019	8/27/2019	9/26/2023	5 years
	Lithium	mg/L	0.447	0.8244	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
	Molybdenum	mg/L	0.121	0.1873	0.04	3/12/2018	9/4/2018	9/26/2023	6 years
MW-5	Manganese	mg/L	0.423	1.042	0.3	3/2023		9/26/2023	
	Lithium	mg/L	0.103	0.1016	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-12	Manganese	mg/L	1.42	1.9	0.3	3/2023		9/26/2023	
MW-11	Lithium	mg/L	<1*	0.8232	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-13	Lithium	mg/L	0.0333	0.03597	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
	Manganese	mg/L	0.349	2.42	0.3	9/23/2022		9/26/2023	1 year
MW-14	Cobalt	mg/L	0.00257	0.004522	0.0021	3/15/2022	9/23/2022	9/26/2023	2 years
	Molybdenum	mg/L	0.0895	0.112	0.04	3/18/2019	8/27/2019	9/26/2023	5 years
MW-15	Lithium	mg/L	0.067	0.06393	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-16	Lithium	mg/L	0.0882	0.07892	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-18	Lithium	mg/L	0.803	0.7853	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
	Molybdenum	mg/L	0.184	0.2152	0.04	3/12/2018	9/4/2018	9/26/2023	6 years
MW-3L	Lithium	mg/L	0.0346	0.03339	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-4L	Lithium	mg/L	0.643	0.8209	0.014	3/18/2019	8/27/2019	9/26/2023	5 years
	Molybdenum	mg/L	0.17	0.2157	0.04	9/4/2018	3/18/2019	9/26/2023	5 years
MW-7	Lithium	mg/L	0.0811	0.0512	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-16L	Lithium	mg/L	0.0258	0.02538	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-19	Cobalt	mg/L	0.00331	0.02405	0.0021	3/26/2020	9/1/2020	9/26/2023	4 years
	Lithium	mg/L	0.0348	0.03328	0.014	3/12/2018	9/4/2018	9/26/2023	6 years
MW-20	Lithium	mg/L	0.029	0.0373	0.014	9/16/2021	3/15/2022	9/26/2023	2 years
MW-21	Lithium	mg/L	0.0312	0.03338	0.014	9/16/2021	3/15/2022	9/26/2023	2 years

Notes:
mg/L - milligrams per liter

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
pH	3/12/2018	SU	7.5	7.5	7.4	-----	11.5	10.9	7.4
pH	9/4/2018	SU	-----	-----	7.2	-----	11.3	10.9	6.88
pH	3/18/2019	SU	7.43	7.5	7.31	-----	-----	10.62	7.5
pH	8/27/2019	SU	8.1	7.05	7.7	-----	13.2	12.8	7.6
pH	3/26/2020	SU	7.54	7.6	7.66	-----	10.03	10.73	7.05
pH	9/1/2020	SU	7.28	7.05	7.15	-----	12	11.28	7.01
pH	3/18/2021	SU	9.27	6.88	9.14	9.97	12.72	12.8	8.72
pH	9/16/2021	SU	7.2	8.22	7.2	7.2	11	10.8	7.2
pH	10/8/2021	SU	-----	-----	-----	-----	-----	-----	-----
pH	3/15/2022	SU	6.78	6.87	7.01	7.23	11.36	10.83	6.97
pH	4/19/2022	SU	-----	-----	-----	-----	-----	-----	-----
pH	9/23/2022	SU	7.34	6.79	7.54	6.96	11.17	10.93	7.82
pH	3/20/2023	SU	7	6.53	6.95	6.72	11.19	10.88	6.38
pH	5/8/2023	SU	----	----	----	----	----	----	----
pH	9/26/2023	SU	6.96	6.88	6.82	7.02	10.46	10.22	6.56
Specific Conductivity	3/12/2018	umhos/cm	769 (n/a)	710 (n/a)	782 (n/a)	-----	18100 (n/a)	14660 (n/a)	2680 (n/a)
Specific Conductivity	9/4/2018	umhos/cm	-----	-----	3210 (n/a)	-----	14580 (n/a)	15450 (n/a)	1952 (n/a)
Specific Conductivity	3/18/2019	umhos/cm	749 (n/a)	1213 (n/a)	788 (n/a)	-----	13120 (n/a)	15050 (n/a)	2290 (n/a)
Specific Conductivity	8/27/2019	umhos/cm	650 (n/a)	1527 (n/a)	897 (n/a)	-----	14270 (n/a)	17210 (n/a)	2270 (n/a)
Specific Conductivity	3/26/2020	umhos/cm	753 (n/a)	1538 (n/a)	973 (n/a)	-----	16998 (n/a)	16322 (n/a)	3470 (n/a)
Specific Conductivity	9/1/2020	umhos/cm	686 (n/a)	1168 (n/a)	878 (n/a)	-----	13030 (n/a)	12100 (n/a)	2770 (n/a)
Specific Conductivity	3/18/2021	umhos/cm	620 (1)	1350 (n/a)	740 (1)	610 (1)	11200 (1)	10800 (n/a)	2600 (n/a)
Specific Conductivity	9/16/2021	umhos/cm	678 (n/a)	1230 (n/a)	984 (n/a)	763 (n/a)	14320 (N/A)	16420 (n/a)	1139 (n/a)
Specific Conductivity	10/8/2021	umhos/cm	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	3/15/2022	umhos/cm	728 (N/A)	1094 (N/A)	1052 (N/A)	7241 (N/A)	12550 (N/A)	14570 (N/A)	3708 (N/A)
Specific Conductivity	4/19/2022	umhos/cm	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/23/2022	umhos/cm	1146 (N/A)	1288 (N/A)	29 (N/A)	1204 (N/A)	19447 (N/A)	22171 (N/A)	5990 (N/A)
Specific Conductivity	3/20/2023	umhos/cm	798 (N/A)	1372 (N/A)	1259 (N/A)	93 (N/A)	11850 (N/A)	16500 (N/A)	4405 (N/A)
Specific Conductivity	5/8/2023	umhos/cm	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/26/2023	umhos/cm	768	1069	1028	787	11450	15240	3282
Alkalinity, Total	9/1/2020	mg/L	416 (n/a)	419 (n/a)	275 (n/a)	383 (n/a)	2300 (n/a)	1620 (n/a)	336 (n/a)
Alkalinity, Total	9/16/2021	mg/L	390 (20)	417 (20)	271 (20)	359 (20)	1730 (100)	1230 (40)	337 (20)
Alkalinity, Total	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	3/15/2022	mg/L	412 (10)	412 (10)	314 (10)	382 (10)	1920 (10)	1670 (10)	274 (10)
Alkalinity, Total	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	9/23/2022	mg/L	418 (10)	454 (10)	309 (10)	209 (10)	1750 (25)	1430 (25)	386 (25)
Alkalinity, Total	3/20/2023	mg/L	424 (5)	417 (5)	358 (5)	394 (5)	1640 (5)	1690 (5)	385 (5)
Alkalinity, Total	5/8/2023	mg/L	----	----	----	----	----	----	----
Alkalinity, Total	9/26/2023	mg/L	402 (5.00)	394 (5.00)	306 (5.00)	378 (5.00)	1460 (5.00)	1510 (5.00)	374 (5.00)
Alkalinity, Bicarbonate	9/16/2021	mg/L	390 (20)	960 (1)	271 (20)	359 (20)	ND (100)	114 (40)	337 (20)
Alkalinity, Bicarbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	3/15/2022	mg/L	412 (10)	412 (10)	314 (10)	382 (10)	ND (10)	98.0 (10)	274 (10)
Alkalinity, Bicarbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/23/2022	mg/L	418 (10)	454 (10)	309 (10)	209 (10)	ND (25)	126 (25)	386 (25)
Alkalinity, Bicarbonate	3/20/2023	mg/L	424 (5)	417 (5)	358 (5)	394 (5)	ND (5)	115 (5)	385 (5)
Alkalinity, Bicarbonate	5/8/2023	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/26/2023	mg/L	402 (5.00)	394 (5.00)	306 (5.00)	378 (5.00)	56.5 (5.00)	124 (5.00)	374 (5.00)
Alkalinity, Carbonate	9/16/2021	mg/L	ND (20)	ND (5)	ND (20)	ND (20)	1340 (100)	1120 (40)	ND (20)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Alkalinity, Carbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	3/15/2022	mg/L	ND (10)	ND (10)	ND (10)	ND (10)	1860 (10)	1570 (10)	ND (10)
Alkalinity, Carbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	9/23/2022	mg/L	ND (10)	ND (10)	ND (10)	ND (10)	1590 (25)	1300 (25)	ND (25)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	ND (5)	ND (5)	ND (5)	1630 (5)	1570 (5)	ND (5)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	ND (5)	ND (5)	ND (5)	1630 (5)	1570 (5)	ND (5)
Alkalinity, Carbonate	5/8/2023	mg/L							
Alkalinity, Carbonate	9/26/2023	mg/L	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	1410 (5.00)	1390 (5.00)	ND (5.00)
Bromate	3/18/2021	ug/L	ND (5)	1205 (n/a)	ND (500)	ND (500)	ND (100)	ND (500)	ND (500)
Bromate	9/16/2021	ug/L	ND (10)	417 (20)	ND (10)	ND (5)	ND (100)	ND (100)	ND (10)
Bromate	10/8/2021	ug/L	-----	-----	-----	-----	-----	-----	-----
Bromate	3/15/2022	ug/L	9.64 (5)	6.00 (5)	ND (5)	10.2 (5)	ND (50)	ND (50)	ND (5)
Bromate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Bromate	9/23/2022	ug/L	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (500)	ND (500)
Bromate	3/20/2023	ug/L	ND (5)	ND (5)	ND (5)	ND (5)	ND (125)	ND (125)	ND (5)
Bromate	5/8/2023	ug/L							
Bromate	9/26/2023	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Aluminium	3/12/2018	mg/L	0.277 (n/a)	0.844 (n/a)	ND (0.05)	ND (0.05)	ND (5)	ND (5)	ND (0.05)
Aluminium	9/4/2018	mg/L	0.137 (n/a)	0.423 (n/a)	ND (0.05)	ND (0.05)	ND (5)	ND (0.05)	ND (0.1)
Aluminium	3/18/2019	mg/L	ND (0.05)	2.96 (n/a)	0.112 (n/a)	ND (0.05)	ND (0.05)	ND (0.05)	1.44 (n/a)
Aluminium	8/27/2019	mg/L	0.0965 (n/a)	0.214 (n/a)	ND (0.027)	ND (0.027)	0.0282 (n/a)	ND (0.027)	0.0377 (n/a)
Aluminium	3/26/2020	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.5)	ND (0.2)	ND (0.2)
Aluminium	9/1/2020	mg/L	ND (0.012)	ND (0.012)	ND (0.012)	ND (0.012)	ND (0.84)	0.0257 (n/a)	0.13 (n/a)
Aluminium	3/18/2021	mg/L	ND (0.075)	0.163 (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	0.112 (0.075)
Aluminium	9/16/2021	mg/L	0.0886 (0.075)	0.195 (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)	ND (0.075)
Aluminium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Aluminium	3/15/2022	mg/L	ND (0.05)	0.0627 (0.05)	0.0607 (0.05)	ND (0.05)	ND (0.5)	ND (0.5)	ND (0.2)
Aluminium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Aluminium	9/23/2022	mg/L	ND (0.05)	ND (0.05)	0.0850 (0.05)	ND (0.05)	ND (0.35)	ND (0.35)	ND (0.2)
Aluminium	3/20/2023	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	0.0630 (0.05)	ND (0.05)	ND (0.05)
Aluminium	5/8/2023	mg/L							
Aluminium	9/26/2023	mg/L	0.0606 (0.0500)	0.0795 (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)
Antimony	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)
Antimony	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.001)	ND (0.002)
Antimony	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0025 (n/a)	ND (0.001)	ND (0.001)
Antimony	8/27/2019	mg/L	0.000543 (n/a)	ND (0.00053)	ND (0.00053)	ND (0.00053)	0.00225 (n/a)	ND (0.00053)	ND (0.00053)
Antimony	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)
Antimony	9/1/2020	mg/L	ND (0.00051)	ND (0.00051)	ND (0.00051)	ND (0.00051)	0.00241 (n/a)	0.0012 (n/a)	ND (0.00051)
Antimony	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Antimony	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Antimony	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Antimony	3/15/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.008)
Antimony	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Antimony	9/23/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.14)	ND (0.014)	ND (0.008)
Antimony	3/20/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Antimony	5/8/2023	mg/L							
Antimony	9/26/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.008)	ND (0.008)	ND (0.008)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Arsenic	3/12/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.2)	ND (0.2)	ND (0.002)
Arsenic	9/4/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.2)	ND (0.2)	0.00227 (n/a)
Arsenic	3/18/2019	mg/L	ND (0.002)	0.00707 (n/a)	ND (0.002)	ND (0.002)	0.0764 (n/a)	0.00913 (n/a)	0.00542 (n/a)
Arsenic	8/27/2019	mg/L	ND (0.00075)	0.00132 (n/a)	ND (0.00075)	ND (0.00075)	0.104 (n/a)	0.00997 (n/a)	0.00154 (n/a)
Arsenic	3/26/2020	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0871 (n/a)	0.0268 (n/a)	ND (0.008)
Arsenic	9/1/2020	mg/L	ND (0.00088)	ND (0.00088)	ND (0.00088)	ND (0.00088)	0.114 (n/a)	0.034 (n/a)	0.000942 (n/a)
Arsenic	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.118 (0.01)	0.0266 (0.01)	ND (0.01)
Arsenic	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0857 (0.01)	0.0319 (0.01)	0.012 (0.01)
Arsenic	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Arsenic	3/15/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0491 (0.02)	0.0247 (0.02)	ND (0.008)
Arsenic	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Arsenic	9/23/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0553 (0.002)	0.0168 (0.002)	ND (0.008)
Arsenic	3/20/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.0429 (0.002)	0.00898 (0.002)	ND (0.002)
Arsenic	5/8/2023	mg/L							
Arsenic	9/26/2023	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.0358 (0.00200)	0.00884 (0.00200)	ND (0.00200)
Barium	3/12/2018	mg/L	0.135 (n/a)	0.147 (n/a)	0.0459 (n/a)	0.0633 (n/a)	ND (0.2)	ND (0.2)	0.03 (n/a)
Barium	9/4/2018	mg/L	0.13 (n/a)	0.0978 (n/a)	0.0548 (n/a)	0.0642 (n/a)	ND (0.2)	ND (0.2)	0.0255 (n/a)
Barium	3/18/2019	mg/L	0.138 (n/a)	0.528 (n/a)	0.059 (n/a)	0.0671 (n/a)	0.0118 (n/a)	0.0152 (n/a)	0.0647 (n/a)
Barium	8/27/2019	mg/L	0.127 (n/a)	0.0523 (n/a)	0.0526 (n/a)	0.0663 (n/a)	0.013 (n/a)	0.0137 (n/a)	0.0401 (n/a)
Barium	3/26/2020	mg/L	0.109 (n/a)	0.0647 (n/a)	0.0569 (n/a)	0.0568 (n/a)	ND (0.02)	0.0123 (n/a)	0.0445 (n/a)
Barium	9/1/2020	mg/L	0.124 (n/a)	0.0576 (n/a)	0.0531 (n/a)	0.0555 (n/a)	0.0112 (n/a)	0.0133 (n/a)	0.0415 (n/a)
Barium	3/18/2021	mg/L	0.122 (0.005)	0.0856 (0.005)	0.066 (0.005)	0.0647 (0.005)	0.0071 (0.005)	0.0142 (0.005)	0.0335 (0.005)
Barium	9/16/2021	mg/L	0.116 (0.005)	0.0651 (0.005)	0.0473 (0.005)	0.0642 (0.005)	0.0064 (0.005)	0.0146 (0.005)	0.08 (0.005)
Barium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Barium	3/15/2022	mg/L	0.120 (0.002)	0.0573 (0.002)	0.0670 (0.002)	0.0689 (0.002)	ND (0.002)	ND (0.02)	0.357 (0.008)
Barium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Barium	9/23/2022	mg/L	0.117 (0.002)	0.0585 (0.002)	0.0480 (0.002)	0.0665 (0.002)	ND (0.014)	0.0172 (0.014)	0.0426 (0.008)
Barium	3/20/2023	mg/L	0.122 (0.002)	0.0713 (0.002)	0.0587 (0.002)	0.0740 (0.002)	0.00723 (0.002)	0.0130 (0.002)	0.0363 (0.002)
Barium	5/8/2023	mg/L							
Barium	9/26/2023	mg/L	0.115 (0.00200)	0.0491 (0.00200)	0.0545 (0.00200)	0.0679 (0.00200)	0.00888 (0.00200)	0.0138 (0.00200)	0.0338 (0.00200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Beryllium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)
Beryllium	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.002)
Beryllium	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	8/27/2019	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Beryllium	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)
Beryllium	9/1/2020	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Beryllium	3/18/2021	mg/L	ND (0.001)	0.0016 (0.001)	ND (0.001)	0.0022 (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	9/16/2021	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Beryllium	3/15/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.01)	ND (0.004)
Beryllium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Beryllium	9/23/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.007)	ND (0.004)
Beryllium	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)
Beryllium	5/8/2023	mg/L							
Beryllium	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00100)
Boron	3/12/2018	mg/L	1.22 (n/a)	ND (0.2)	ND (0.2)	0.229 (n/a)	ND (20)	ND (20)	ND (0.2)
Boron	9/4/2018	mg/L	1.35 (n/a)	ND (0.2)	ND (0.2)	0.231 (n/a)	ND (20)	ND (20)	ND (0.2)
Boron	3/18/2019	mg/L	1.12 (n/a)	ND (0.2)	ND (0.2)	0.231 (n/a)	0.267 (n/a)	0.336 (n/a)	ND (0.2)
Boron	8/27/2019	mg/L	1.14 (n/a)	ND (0.11)	0.148 (n/a)	0.238 (n/a)	0.271 (n/a)	0.292 (n/a)	0.208 (n/a)
Boron	3/26/2020	mg/L	1.05 (n/a)	ND (0.2)	ND (0.2)	0.228 (n/a)	ND (2)	0.411 (n/a)	ND (0.8)
Boron	9/1/2020	mg/L	1.22 (n/a)	ND (0.32)	0.108 (n/a)	0.206 (n/a)	ND (0.56)	ND (0.56)	ND (0.32)
Boron	3/18/2021	mg/L	1.2 (0.1)	0.107 (0.1)	ND (0.1)	0.243 (0.1)	0.307 (0.1)	0.398 (0.1)	0.238 (0.1)
Boron	9/16/2021	mg/L	1.05 (0.1)	ND (0.1)	ND (0.1)	0.219 (0.1)	0.28 (0.1)	0.416 (0.1)	0.688 (0.1)
Boron	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Boron	3/15/2022	mg/L	1.20 (0.1)	ND (0.1)	0.105 (0.1)	0.242 (0.1)	ND (1)	ND (1)	ND (0.4)
Boron	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Boron	9/23/2022	mg/L	1.11 (0.1)	0.110 (0.1)	ND (0.1)	0.218 (0.1)	ND (0.7)	ND (0.7)	ND (0.4)
Boron	3/20/2023	mg/L	1.20 (0.1)	0.174 (0.1)	0.113 (0.1)	0.241 (0.1)	0.212 (0.1)	0.239 (0.1)	0.179 (0.1)
Boron	5/8/2023	mg/L							
Boron	9/26/2023	mg/L	1.22 (0.100)	0.110 (0.100)	0.108 (0.100)	0.256 (0.100)	ND (0.400)	ND (0.400)	ND (0.400)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Cadmium	3/12/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	ND (0.0005)
Cadmium	9/4/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.0005)	ND (0.001)
Cadmium	3/18/2019	mg/L	ND (0.0005)	ND (0.000723)	ND (0.005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)
Cadmium	8/27/2019	mg/L	0.00006 (n/a)	0.000148 (n/a)	ND (0.000039)	0.000084 (n/a)	0.00043 (n/a)	0.000101 (n/a)	ND (0.000039)
Cadmium	3/26/2020	mg/L	ND (0.0001)	ND (0.0001)	0.000098 (n/a)	0.000111 (n/a)	ND (0.001)	ND (0.0004)	ND (0.0004)
Cadmium	9/1/2020	mg/L	ND (0.000049)	0.000055 (n/a)	ND (0.000049)	0.000476 (n/a)	0.000145 (n/a)	0.000132 (n/a)	ND (0.000049)
Cadmium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cadmium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cadmium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Cadmium	3/15/2022	mg/L	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.001)	ND (0.001)	ND (0.0004)
Cadmium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Cadmium	9/23/2022	mg/L	ND (0.0001)	ND (0.0001)	ND (0.0001)	0.000112 (0.0001)	ND (0.0007)	ND (0.0007)	ND (0.0004)
Cadmium	3/20/2023	mg/L	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0004)	ND (0.0004)	ND (0.0001)
Cadmium	5/8/2023	mg/L							
Cadmium	9/26/2023	mg/L	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)
Calcium	3/12/2018	mg/L	69.2 (n/a)	175 (n/a)	100 (n/a)	91.4 (n/a)	ND (20)	ND (20)	334 (n/a)
Calcium	9/4/2018	mg/L	66.6 (n/a)	196 (n/a)	119 (n/a)	92.1 (n/a)	ND (20)	ND (20)	272 (n/a)
Calcium	3/18/2019	mg/L	65.9 (n/a)	340 (n/a)	118 (n/a)	94.3 (n/a)	1.20 (n/a)	1.16 (n/a)	378 (n/a)
Calcium	8/27/2019	mg/L	71.0 (n/a)	197 (n/a)	119 (n/a)	96.6 (n/a)	3.08 (n/a)	3.03 (n/a)	374 (n/a)
Calcium	3/26/2020	mg/L	55.5 (n/a)	171 (n/a)	131 (n/a)	81.8 (n/a)	ND (5)	1.08 (n/a)	472 (n/a)
Calcium	9/1/2020	mg/L	63.9 (n/a)	192 (n/a)	118 (n/a)	74.9 (n/a)	1.41 (n/a)	2.3 (n/a)	514 (n/a)
Calcium	3/18/2021	mg/L	64.0 (0.2)	196 (0.2)	146 (0.2)	87.3 (0.2)	1.61 (0.2)	1.62 (0.2)	317 (0.2)
Calcium	9/16/2021	mg/L	57.4 (0.2)	171 (0.2)	107 (0.2)	85.1 (0.2)	1.50 (0.2)	1.60 (0.2)	112 (0.2)
Calcium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Calcium	3/15/2022	mg/L	69.2 (0.5)	178 (0.5)	166 (0.5)	97.5 (0.5)	ND (5)	5.69 (5)	490 (2)
Calcium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Calcium	9/23/2022	mg/L	59.4 (0.5)	145 (0.5)	111 (0.5)	93.4 (0.5)	ND (3.5)	ND (3.5)	477 (2)
Calcium	3/20/2023	mg/L	69.3 (0.5)	196 (0.5)	149 (0.5)	103 (0.5)	2.59 (0.5)	1.21 (0.5)	487 (5)
Calcium	5/8/2023	mg/L							
Calcium	9/26/2023	mg/L	67.5 (0.500)	140 (0.500)	135 (0.500)	104 (0.500)	2.85 (2.00)	ND (2.00)	392 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Chloride	3/12/2018	mg/L	ND (5)	13.4 (n/a)	41.5 (n/a)	19.0 (n/a)	2030 (n/a)	1620 (n/a)	152 (n/a)
Chloride	9/4/2018	mg/L	2.16 (n/a)	13.1 (n/a)	37.7 (n/a)	11.0 (n/a)	1470 (n/a)	1660 (n/a)	93.3 (n/a)
Chloride	3/18/2019	mg/L	2.47 (n/a)	14.2 (n/a)	29.6 (n/a)	13.0 (n/a)	1660 (n/a)	1590 (n/a)	184 (n/a)
Chloride	8/27/2019	mg/L	2.74 (n/a)	10.1 (n/a)	33.7 (n/a)	12.4 (n/a)	1760 (n/a)	1620 (n/a)	213 (n/a)
Chloride	3/26/2020	mg/L	2.67 (n/a)	12.3 (n/a)	34.2 (n/a)	11.1 (n/a)	1730 (n/a)	1580 (n/a)	427 (n/a)
Chloride	9/1/2020	mg/L	2.14 (n/a)	10.2 (n/a)	20.8 (n/a)	9.80 (n/a)	1590 (n/a)	1580 (n/a)	469 (n/a)
Chloride	3/18/2021	mg/L	2.40 (1)	12.7 (1)	58.3 (10)	10.6 (1)	1360 (200)	1770 (200)	394 (50)
Chloride	9/16/2021	mg/L	2.30 (1)	7.20 (1)	25.3 (5)	9.20 (1)	1260 (200)	1470 (200)	96.6 (20)
Chloride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Chloride	3/15/2022	mg/L	2.72 (1)	7.55 (1)	53.0 (1)	10.9 (1)	1240 (100)	2270 (100)	531 (100)
Chloride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Chloride	9/23/2022	mg/L	2.12 (1)	10.5 (1)	45.8 (1)	9.63 (1)	107 (50)	63.6 (50)	533 (50)
Chloride	3/20/2023	mg/L	2.42 (1)	13.2 (1)	ND (1)	11.3 (1)	1190 (50)	1650 (50)	715 (10)
Chloride	5/8/2023	mg/L							
Chloride	9/26/2023	mg/L	2.21 (1.00)	5.90 (1.00)	34.7 (1.00)	9.84 (1.00)	1120 (200)	1590 (200)	444 (100)
Chromium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	0.00641 (n/a)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)
Chromium	9/4/2018	mg/L	0.00727 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)
Chromium	3/18/2019	mg/L	ND (0.005)	0.108 (n/a)	0.0225 (n/a)	ND (0.005)	0.00979 (n/a)	ND (0.005)	ND (0.005)
Chromium	8/27/2019	mg/L	0.00143 (n/a)	0.00294 (n/a)	ND (0.00098)	ND (0.00098)	ND (0.00098)	ND (0.00098)	ND (0.00098)
Chromium	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.02)	ND (0.02)
Chromium	9/1/2020	mg/L	ND (0.0011)	ND (0.0011)	ND (0.0011)	ND (0.0011)	0.00189 (n/a)	0.00117 (n/a)	0.00173 (n/a)
Chromium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Chromium	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)
Chromium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Chromium	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)
Chromium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.005)
Chromium	5/8/2023	mg/L							
Chromium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Cobalt	3/12/2018	mg/L	0.000535 (n/a)	0.00225 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	0.00522 (n/a)
Cobalt	9/4/2018	mg/L	0.00051 (n/a)	0.00127 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	0.00665 (n/a)
Cobalt	3/18/2019	mg/L	ND (0.0005)	0.0213 (n/a)	0.00891 (n/a)	0.00109 (n/a)	0.000766 (n/a)	ND (0.0005)	0.00962 (n/a)
Cobalt	8/27/2019	mg/L	0.00052 (n/a)	0.00277 (n/a)	0.000658 (n/a)	0.000635 (n/a)	0.000456 (n/a)	0.000256 (n/a)	0.00373 (n/a)
Cobalt	3/26/2020	mg/L	0.000197 (n/a)	ND (0.005)	0.000257 (n/a)	0.000647 (n/a)	ND (0.005)	ND (0.002)	0.00345 (n/a)
Cobalt	9/1/2020	mg/L	0.00031 (n/a)	0.000272 (n/a)	ND (0.000091)	0.000219 (n/a)	0.000415 (n/a)	0.00035 (n/a)	0.00109 (n/a)
Cobalt	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cobalt	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cobalt	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Cobalt	3/15/2022	mg/L	ND (0.0005)	0.000654 (0.0005)	0.00177 (0.0005)	0.000820 (0.0005)	ND (0.005)	ND (0.005)	ND (0.002)
Cobalt	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Cobalt	9/23/2022	mg/L	ND (0.0005)	ND (0.0005)	0.00218 (0.0005)	0.000521 (0.0005)	ND (0.0035)	ND (0.0035)	ND (0.002)
Cobalt	3/20/2023	mg/L	ND (0.0005)	ND (0.0005)	0.000910 (0.0005)	0.000843 (0.0005)	ND (0.005)	ND (0.0005)	0.00511 (0.005)
Cobalt	5/8/2023	mg/L							
Cobalt	9/26/2023	mg/L	ND (0.000500)	0.000578 (0.000500)	0.000551 (0.000500)	0.000616 (0.000500)	ND (0.00200)	ND (0.000500)	0.000782 (0.000500)
Copper	3/12/2018	mg/L	0.0314 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)
Copper	9/4/2018	mg/L	0.0127 (n/a)	0.0235 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)
Copper	3/18/2019	mg/L	ND (0.005)	0.155 (n/a)	0.0332 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Copper	8/27/2019	mg/L	0.00338 (n/a)	0.00695 (n/a)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Copper	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.02)	ND (0.02)
Copper	9/1/2020	mg/L	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)	ND (0.0015)
Copper	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Copper	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Copper	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Copper	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)
Copper	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Copper	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)
Copper	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.00535)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)
Copper	5/8/2023	mg/L							
Copper	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00200)	ND (0.00500)	ND (0.00500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Fluoride	3/12/2018	mg/L	0.88 (n/a)	ND (0.5)	0.185 (n/a)	ND (0.5)	1.95 (n/a)	2.92 (n/a)	ND (0.5)
Fluoride	9/4/2018	mg/L	0.813 (n/a)	ND (0.1)	0.105 (n/a)	0.274 (n/a)	1.40 (n/a)	2.29 (n/a)	ND (0.1)
Fluoride	3/18/2019	mg/L	0.771 (n/a)	0.197 (n/a)	0.147 (n/a)	0.237 (n/a)	1.81 (n/a)	2.92 (n/a)	ND (0.5)
Fluoride	8/27/2019	mg/L	0.525 (n/a)	ND (0.045)	ND (0.045)	0.0535 (n/a)	ND (0.045)	ND (0.045)	ND (0.045)
Fluoride	3/26/2020	mg/L	0.918 (n/a)	0.231 (n/a)	0.524 (n/a)	0.374 (n/a)	1.81 (n/a)	3.25 (n/a)	1.77 (n/a)
Fluoride	9/1/2020	mg/L	0.938 (n/a)	ND (0.23)	0.256 (n/a)	0.37 (n/a)	1.89 (n/a)	2.49 (n/a)	0.198 (n/a)
Fluoride	3/18/2021	mg/L	0.89 (0.2)	0.29 (0.2)	0.28 (0.2)	0.41 (0.2)	ND (0.2)	ND (0.2)	ND (0.2)
Fluoride	9/16/2021	mg/L	0.70 (0.2)	0.31 (0.2)	ND (0.2)	0.42 (0.2)	0.49 (0.2)	3.30 (0.2)	0.35 (0.2)
Fluoride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Fluoride	3/15/2022	mg/L	0.564 (0.1)	ND (0.1)	ND (0.1)	ND (0.5)	ND (0.1)	ND (10)	1.47 (0.1)
Fluoride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Fluoride	9/23/2022	mg/L	0.774 (0.1)	0.189 (0.1)	0.2 (0.1)	0.183 (0.1)	4.41 (0.1)	5.63 (0.1)	0.300 (0.1)
Fluoride	3/20/2023	mg/L	1.01 (0.1)	0.248 (0.1)	ND (0.1)	0.319 (0.1)	1.95 (0.1)	3.21 (0.1)	0.273 (0.1)
Fluoride	5/8/2023	mg/L							
Fluoride	9/26/2023	mg/L	0.816 (0.200)	ND (0.200)	ND (0.200)	0.271 (0.200)	5.14 (0.200)	7.35 (0.200)	1.04 (0.200)
Lead	3/12/2018	mg/L	0.00274 (n/a)	0.00147 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	ND (0.0005)
Lead	9/4/2018	mg/L	0.00135 (n/a)	0.00107 (n/a)	ND (0.0005)	ND (0.0005)	ND (0.05)	ND (0.05)	ND (0.001)
Lead	3/18/2019	mg/L	ND (0.0005)	0.00869 (n/a)	ND (0.0005)	ND (0.0005)	0.000601 (n/a)	ND (0.0005)	0.00547 (n/a)
Lead	8/27/2019	mg/L	0.00123 (n/a)	0.00169 (n/a)	ND (0.00027)	ND (0.00027)	ND (0.0027)	ND (0.0027)	0.000514 (n/a)
Lead	3/26/2020	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.005)	ND (0.002)	ND (0.002)
Lead	9/1/2020	mg/L	0.000212 (n/a)	ND (0.00011)	ND (0.00011)	0.000175 (n/a)	ND (0.00077)	ND (0.00077)	0.000401 (n/a)
Lead	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Lead	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Lead	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Lead	3/15/2022	mg/L	ND (0.0005)	0.000698 (0.0005)	ND (0.0005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)
Lead	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Lead	9/23/2022	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.005)	ND (0.0035)	ND (0.0035)	ND (0.002)
Lead	3/20/2023	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.005)	ND (0.0005)	ND (0.005)	ND (0.0005)
Lead	5/8/2023	mg/L							
Lead	9/26/2023	mg/L	0.000583 (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)	ND (0.000500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Lithium	3/12/2018	mg/L	0.104 (n/a)	ND (0.01)	ND (0.01)	0.0309 (n/a)	1.02 (n/a)	ND (1)	0.0308 (n/a)
Lithium	9/4/2018	mg/L	0.0949 (n/a)	ND (0.01)	0.0105 (n/a)	0.0279 (n/a)	ND (1)	ND (1)	0.0322 (n/a)
Lithium	3/18/2019	mg/L	0.0913 (n/a)	ND (0.01)	0.01 (n/a)	0.0287 (n/a)	0.809 (n/a)	0.592 (n/a)	0.0302 (n/a)
Lithium	8/27/2019	mg/L	0.0999 (n/a)	0.0049 (n/a)	0.0114 (n/a)	0.0305 (n/a)	0.745 (n/a)	0.515 (n/a)	0.0426 (n/a)
Lithium	3/26/2020	mg/L	0.0938 (n/a)	0.00761 (n/a)	0.0103 (n/a)	0.031 (n/a)	0.883 (n/a)	0.677 (n/a)	0.0375 (n/a)
Lithium	9/1/2020	mg/L	0.0974 (n/a)	0.0113 (n/a)	0.0115 (n/a)	0.0269 (n/a)	0.879 (n/a)	0.771 (n/a)	0.0853 (n/a)
Lithium	3/18/2021	mg/L	0.102 (0.01)	ND (0.01)	0.0116 (0.01)	0.0355 (0.01)	0.726 (0.01)	0.732 (0.01)	0.0815 (0.01)
Lithium	9/16/2021	mg/L	0.0952 (0.01)	ND (0.01)	0.0113 (0.01)	0.0323 (0.01)	0.611 (0.01)	0.681 (0.01)	0.0706 (0.01)
Lithium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Lithium	3/15/2022	mg/L	0.106 (0.01)	ND (0.01)	0.0137 (0.01)	0.0316 (0.01)	0.545 (0.1)	0.911 (0.1)	0.108 (0.04)
Lithium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Lithium	9/23/2022	mg/L	0.0837 (0.01)	ND (0.01)	ND (0.01)	0.0247 (0.01)	0.667 (0.07)	0.904 (0.07)	0.108 (0.04)
Lithium	3/20/2023	mg/L	0.0937 (0.01)	ND (0.01)	0.0136 (0.01)	0.0256 (0.01)	0.371 (0.01)	0.464 (0.01)	0.0874 (0.01)
Lithium	5/8/2023	mg/L							
Lithium	9/26/2023	mg/L	0.105 (0.0100)	ND (0.0100)	0.0149 (0.0100)	0.0346 (0.0100)	0.447 (0.280)	0.643 (0.280)	0.103 (0.0100)
Magnesium	3/12/2018	mg/L	41.9 (n/a)	78.7 (n/a)	32.5 (n/a)	40.2 (n/a)	ND (5)	ND (5)	132 (n/a)
Magnesium	9/4/2018	mg/L	40.7 (n/a)	101 (n/a)	38.7 (n/a)	39.0 (n/a)	ND (0.05)	ND (5)	81.9 (n/a)
Magnesium	3/18/2019	mg/L	41.4 (n/a)	117 (n/a)	38.5 (n/a)	40.9 (n/a)	ND (0.5)	0.67 (n/a)	160 (n/a)
Magnesium	8/27/2019	mg/L	41.1 (n/a)	83.2 (n/a)	37.9 (n/a)	40.6 (n/a)	0.115 (n/a)	0.58 (n/a)	131 (n/a)
Magnesium	3/26/2020	mg/L	41.4 (n/a)	69.4 (n/a)	43.5 (n/a)	34.5 (n/a)	ND (5)	ND (2)	191 (n/a)
Magnesium	9/1/2020	mg/L	43.5 (n/a)	84.8 (n/a)	40.5 (n/a)	34.1 (n/a)	0.174 (n/a)	0.41 (n/a)	207 (n/a)
Magnesium	3/18/2021	mg/L	42.8 (0.05)	78.6 (0.05)	51.2 (0.05)	40.2 (0.05)	ND (1)	1.90 (1)	136 (0.05)
Magnesium	9/16/2021	mg/L	39.3 (0.05)	73.8 (0.05)	37.6 (0.05)	40.4 (0.05)	ND (0.05)	0.196 (0.05)	72.4 (0.05)
Magnesium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Magnesium	3/15/2022	mg/L	41.8 (0.5)	65.2 (0.5)	51.9 (0.5)	40.1 (0.5)	ND (5)	ND (5)	169 (2)
Magnesium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Magnesium	9/23/2022	mg/L	37.4 (0.5)	54.1 (0.5)	34.6 (0.5)	36.9 (0.5)	ND (3.5)	ND (3.5)	160 (2)
Magnesium	3/20/2023	mg/L	43.9 (0.5)	80.6 (0.5)	49.3 (0.5)	44.9 (0.5)	ND (0.5)	ND (0.5)	177 (5)
Magnesium	5/8/2023	mg/L							
Magnesium	9/26/2023	mg/L	38.7 (0.500)	60.2 (0.500)	47.9 (0.500)	47.6 (0.500)	0.0684 (0.0100)	ND (0.500)	130 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Manganese	3/12/2018	mg/L	0.0205 (n/a)	0.176 (n/a)	ND (0.01)	0.0997 (n/a)	ND (1)	ND (1)	0.648 (n/a)
Manganese	9/4/2018	mg/L	0.0207 (n/a)	0.21 (n/a)	ND (0.01)	0.108 (n/a)	ND (0.01)	ND (0.01)	0.177 (n/a)
Manganese	3/18/2019	mg/L	ND (0.01)	1.79 (n/a)	0.204 (n/a)	0.11 (n/a)	0.0119 (n/a)	ND (0.01)	0.894 (n/a)
Manganese	8/27/2019	mg/L	0.0234 (n/a)	0.405 (n/a)	0.10 (n/a)	0.124 (n/a)	0.102 (n/a)	0.0155 (n/a)	0.482 (n/a)
Manganese	3/26/2020	mg/L	0.0158 (n/a)	0.00669 (n/a)	0.0226 (n/a)	0.10 (n/a)	ND (0.1)	ND (0.04)	0.746 (n/a)
Manganese	9/1/2020	mg/L	0.0154 (n/a)	0.0448 (n/a)	0.00541 (n/a)	0.044 (n/a)	0.0069 (n/a)	0.00678 (n/a)	0.636 (n/a)
Manganese	3/18/2021	mg/L	0.0224 (0.005)	0.0571 (0.005)	0.0472 (0.005)	0.0499 (0.005)	0.0433 (0.005)	ND (0.005)	0.0142 (0.005)
Manganese	9/16/2021	mg/L	0.0265 (0.005)	0.092 (0.005)	0.0332 (0.005)	0.137 (0.005)	0.0154 (0.005)	ND (0.005)	1.80 (0.005)
Manganese	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Manganese	3/15/2022	mg/L	0.0269 (0.01)	0.0843 (0.01)	0.135 (0.01)	0.161 (0.01)	ND (0.1)	ND (0.1)	0.0450 (0.04)
Manganese	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Manganese	9/23/2022	mg/L	ND (0.01)	0.0291 (0.01)	0.160 (0.01)	0.125 (0.01)	ND (0.07)	ND (0.07)	0.136 (0.04)
Manganese	3/20/2023	mg/L	0.0231 (0.01)	0.0242 (0.01)	0.0934 (0.01)	0.195 (0.1)	0.0177 (0.01)	ND (0.01)	0.583 (0.01)
Manganese	5/8/2023	mg/L							
Manganese	9/26/2023	mg/L	0.0559 (0.0100)	0.0873 (0.0100)	0.0686 (0.0100)	0.167 (0.0100)	0.0684 (0.0100)	ND (0.0100)	0.423 (0.0100)
Molybdenum	3/12/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.222 (n/a)	ND (0.2)	ND (0.002)
Molybdenum	9/4/2018	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.2)	0.239 (n/a)	ND (0.004)
Molybdenum	3/18/2019	mg/L	0.0023 (n/a)	0.0184 (n/a)	0.0116 (n/a)	ND (0.002)	0.193 (n/a)	0.147 (n/a)	0.0103 (n/a)
Molybdenum	8/27/2019	mg/L	ND (0.0011)	0.00116 (n/a)	ND (0.0011)	ND (0.0011)	0.15 (n/a)	0.0834 (n/a)	0.00173 (n/a)
Molybdenum	3/26/2020	mg/L	ND (0.002)	0.00118 (n/a)	ND (0.002)	0.00291 (n/a)	0.201 (n/a)	0.120 (n/a)	ND (0.008)
Molybdenum	9/1/2020	mg/L	ND (0.0011)	ND (0.0011)	ND (0.0011)	ND (0.0011)	0.192 (n/a)	0.185 (n/a)	0.00243 (n/a)
Molybdenum	3/18/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.162 (0.02)	0.189 (0.02)	ND (0.02)
Molybdenum	9/16/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	0.160 (0.02)	0.185 (0.02)	ND (0.02)
Molybdenum	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Molybdenum	3/15/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.161 (0.02)	0.263 (0.02)	ND (0.008)
Molybdenum	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Molybdenum	9/23/2022	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.158 (0.014)	0.222 (0.014)	ND (0.008)
Molybdenum	3/20/2023	mg/L	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	0.109 (0.002)	0.124 (0.002)	ND (0.002)
Molybdenum	5/8/2023	mg/L							
Molybdenum	9/26/2023	mg/L	ND (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.121 (0.00200)	0.170 (0.00200)	ND (0.00200)
Nickel	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	0.0167 (n/a)
Nickel	9/4/2018	mg/L	0.0054 (n/a)	0.00541 (n/a)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	0.0272 (n/a)
Nickel	3/18/2019	mg/L	0.011 (n/a)	0.128 (n/a)	0.076 (n/a)	ND (0.005)	0.0255 (n/a)	0.00839 (n/a)	0.0262 (n/a)
Nickel	8/27/2019	mg/L	0.0051 (n/a)	0.00757 (n/a)	0.0131 (n/a)	0.00177 (n/a)	0.0215 (n/a)	0.00804 (n/a)	0.0178 (n/a)
Nickel	3/26/2020	mg/L	ND (0.005)	ND (0.005)	0.0025 (n/a)	ND (0.005)	ND (0.05)	0.0101 (n/a)	0.0143 (n/a)
Nickel	9/1/2020	mg/L	ND (0.0019)	0.00232 (n/a)	ND (0.0019)	ND (0.0019)	0.025 (n/a)	0.0134 (n/a)	0.00972 (n/a)
Nickel	3/18/2021	mg/L	ND (0.005)	ND (0.005)	0.0051 (0.005)	ND (0.005)	0.0139 (0.005)	0.0095 (0.005)	0.009 (0.005)
Nickel	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0136 (0.005)	0.011 (0.005)	0.0118 (0.005)
Nickel	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Nickel	3/15/2022	mg/L	ND (0.005)	ND (0.005)	0.00715 (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)
Nickel	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Nickel	9/23/2022	mg/L	ND (0.005)	ND (0.005)	0.0102 (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)
Nickel	3/20/2023	mg/L	ND (0.005)	ND (0.005)	0.00535 (0.005)	ND (0.005)	0.00905 (0.005)	0.00661 (0.005)	ND (0.05)
Nickel	5/8/2023	mg/L							
Nickel	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	0.00599 (0.00500)	ND (0.00500)	0.0114 (0.00500)	0.00826 (0.00500)	0.00612 (0.00500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Nitrate	3/12/2018	mg/L	1.09 (n/a)	ND (0.1)	2.29 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	9/4/2018	mg/L	2.09 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (5)	ND (0.1)	ND (0.1)
Nitrate	3/18/2019	mg/L	2.50 (n/a)	ND (0.1)	1.04 (n/a)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.1)
Nitrate	8/27/2019	mg/L	2.55 (n/a)	0.154 (n/a)	0.231 (n/a)	ND (0.046)	ND (0.046)	ND (0.046)	ND (0.046)
Nitrate	3/26/2020	mg/L	0.13 (n/a)	ND (0.1)	0.98 (n/a)	0.0763 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	9/1/2020	mg/L	0.991 (n/a)	ND (0.049)	0.586 (n/a)	0.417 (n/a)	ND (0.049)	ND (0.049)	ND (0.049)
Nitrate	3/18/2021	mg/L	0.20 (0.1)	0.11 (0.1)	0.44 (0.1)	ND (0.1)	ND (0.1)	0.13 (0.1)	ND (0.1)
Nitrate	9/16/2021	mg/L	0.25 (0.1)	ND (0.1)	0.10 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrate	3/15/2022	mg/L	ND (0.1)	ND (0.1)	0.202 (0.1)	ND (0.1)	ND (10)	ND (10)	ND (0.1)
Nitrate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrate	9/23/2022	mg/L	ND (0.1)	ND (0.1)	0.154 (0.1)	ND (0.1)	ND (0.1)	0.573 (0.1)	0.143 (0.1)
Nitrate	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.258 (0.1)	ND (0.1)
Nitrate	5/8/2023	mg/L							
Nitrate	9/26/2023	mg/L	0.602 (0.200)	ND (0.200)	0.856 (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Nitrite	3/26/2020	mg/L	ND (0.039)	0.0987 (n/a)	ND (0.195)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)
Nitrite	9/1/2020	mg/L	0.0695 (n/a)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)
Nitrite	3/18/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----
Nitrite	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.82 (0.1)	ND (0.1)
Nitrite	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrite	3/15/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (10)	ND (10)	ND (0.1)
Nitrite	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrite	9/23/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	5/8/2023	mg/L							
Nitrite	9/26/2023	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Phosphorus	3/12/2018	mg/L	ND (0.1)	0.101 (n/a)	ND (0.1)	ND (0.1)	0.458 (n/a)	0.116 (n/a)	ND (0.1)
Phosphorus	9/4/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.25 (n/a)	ND (0.1)	ND (0.1)
Phosphorus	3/18/2019	mg/L	ND (0.1)	0.527 (n/a)	ND (0.1)	ND (0.1)	0.309 (n/a)	0.11 (n/a)	0.161 (n/a)
Phosphorus	8/27/2019	mg/L	0.0627 (n/a)	0.117 (n/a)	0.0556 (n/a)	ND (0.041)	0.345 (n/a)	0.143 (n/a)	ND (0.041)
Phosphorus	3/26/2020	mg/L	ND (0.1)	ND (0.1)	0.0502 (n/a)	ND (0.1)	0.368 (n/a)	0.191 (n/a)	0.0861 (n/a)
Phosphorus	9/1/2020	mg/L	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	0.30 (n/a)	0.159 (n/a)	ND (0.039)
Phosphorus	3/18/2021	mg/L	ND (0.1)	ND (0.1)	-----	ND (0.1)	0.25 (0.1)	0.14 (0.1)	ND (0.1)
Phosphorus	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.19 (0.1)	0.11 (0.1)	ND (0.1)
Phosphorus	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Phosphorus	3/15/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.271 (0.1)	0.165 (0.1)	ND (0.1)
Phosphorus	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Phosphorus	9/23/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.254 (0.1)	0.168 (0.1)	ND (0.1)
Phosphorus	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	0.280 (0.1)	0.199 (0.1)	ND (0.1)
Phosphorus	5/8/2023	mg/L							
Phosphorus	9/26/2023	mg/L	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	0.215 (0.100)	0.167 (0.100)	ND (0.100)
Potassium	3/12/2018	mg/L	11.5 (n/a)	4.60 (n/a)	3.58 (n/a)	4.32 (n/a)	5760 (n/a)	4500 (n/a)	69.2 (n/a)
Potassium	9/4/2018	mg/L	10.8 (n/a)	4.52 (n/a)	4.51 (n/a)	4.17 (n/a)	4950 (n/a)	6050 (n/a)	57.6 (n/a)
Potassium	3/18/2019	mg/L	10.8 (n/a)	5.20 (n/a)	4.13 (n/a)	4.35 (n/a)	4360 (n/a)	4680 (n/a)	63.9 (n/a)
Potassium	8/27/2019	mg/L	10.6 (n/a)	4.29 (n/a)	4.79 (n/a)	4.53 (n/a)	5570 (n/a)	4630 (n/a)	84.8 (n/a)
Potassium	3/26/2020	mg/L	11.0 (n/a)	4.29 (n/a)	4.88 (n/a)	3.93 (n/a)	4720 (n/a)	4600 (n/a)	86.1 (n/a)
Potassium	9/1/2020	mg/L	11.5 (n/a)	4.59 (n/a)	4.69 (n/a)	4.02 (n/a)	6380 (n/a)	5800 (n/a)	164 (n/a)
Potassium	3/18/2021	mg/L	11.3 (0.5)	6.36 (0.5)	5.05 (0.5)	26.5 (0.5)	4530 (10)	4860 (10)	170 (0.5)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Potassium	9/16/2021	mg/L	10.4 (0.5)	5.28 (0.5)	4.53 (0.5)	4.62 (0.5)	4550 (5)	5020 (5)	9.57 (0.5)
Potassium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Potassium	3/15/2022	mg/L	11.4 (0.5)	4.91 (0.5)	5.23 (0.5)	5.19 (0.05)	4270 (50)	5340 (50)	230 (2)
Potassium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Potassium	9/23/2022	mg/L	10.5 (0.5)	5.63 (0.5)	4.37 (0.5)	4.39 (0.5)	4140 (50)	4950 (50)	270 (2)
Potassium	3/20/2023	mg/L	11.5 (0.5)	6.95 (0.5)	4.82 (0.5)	5.90 (0.5)	3420 (50)	4490 (50)	292 (5)
Potassium	5/8/2023	mg/L							
Potassium	9/26/2023	mg/L	11.5 (0.500)	5.89 (0.500)	5.46 (0.500)	4.75 (0.500)	3150 (50.0)	4660 (50.0)	252 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Selenium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)
Selenium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)
Selenium	3/18/2019	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.00506 (n/a)	ND (0.005)	ND (0.005)
Selenium	8/27/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	0.0227 (n/a)	0.00208 (n/a)	ND (0.001)
Selenium	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.0194 (n/a)	0.00431 (n/a)	ND (0.02)
Selenium	9/1/2020	mg/L	ND (0.001)	0.00107 (n/a)	ND (0.001)	ND (0.001)	0.0283 (n/a)	0.00353 (n/a)	0.00111 (n/a)
Selenium	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	0.0274 (0.015)	ND (0.015)	ND (0.015)
Selenium	9/16/2021	mg/L	ND (0.015)	0.0168 (0.015)	ND (0.015)	ND (0.015)	0.0156 (0.015)	ND (0.015)	ND (0.015)
Selenium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Selenium	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)
Selenium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Selenium	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)
Selenium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Selenium	5/8/2023	mg/L							
Selenium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)
Silver	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)
Silver	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Silver	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Silver	8/27/2019	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)
Silver	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)
Silver	9/1/2020	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)
Silver	3/18/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)
Silver	9/16/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)
Silver	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Silver	3/15/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.01)	ND (0.004)
Silver	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Silver	9/23/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	0.00116 (0.001)	ND (0.007)	ND (0.007)	ND (0.004)
Silver	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.004)	ND (0.001)
Silver	5/8/2023	mg/L							
Silver	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)
Sodium	3/12/2018	mg/L	40.4 (n/a)	25.5 (n/a)	15.9 (n/a)	22.2 (n/a)	425 (n/a)	399 (n/a)	28.2 (n/a)
Sodium	9/4/2018	mg/L	39.5 (n/a)	24.1 (n/a)	17.9 (n/a)	21.2 (n/a)	339 (n/a)	534 (n/a)	18.0 (n/a)
Sodium	3/18/2019	mg/L	39.7 (n/a)	26.4 (n/a)	19.4 (n/a)	22.1 (n/a)	401 (n/a)	582 (n/a)	38.3 (n/a)
Sodium	8/27/2019	mg/L	39.6 (n/a)	17.0 (n/a)	18.7 (n/a)	22.2 (n/a)	375 (n/a)	397 (n/a)	32.0 (n/a)
Sodium	3/26/2020	mg/L	39.9 (n/a)	14.6 (n/a)	19.5 (n/a)	22.0 (n/a)	387 (n/a)	413 (n/a)	40.6 (n/a)
Sodium	9/1/2020	mg/L	41.9 (n/a)	19.7 (n/a)	17.7 (n/a)	18.9 (n/a)	375 (n/a)	429 (n/a)	131 (n/a)
Sodium	3/18/2021	mg/L	39.3 (0.5)	15.4 (0.5)	23.1 (0.5)	21.8 (0.5)	267 (0.5)	354 (0.5)	47.0 (0.5)
Sodium	9/16/2021	mg/L	36.8 (0.5)	14.4 (0.5)	18.1 (0.5)	20.9 (0.5)	290 (0.5)	396 (0.5)	53.2 (0.5)
Sodium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Sodium	3/15/2022	mg/L	41.7 (1)	10.9 (1)	25.4 (1)	22.3 (1)	301 (10)	519 (10)	66.9 (4)
Sodium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Sodium	9/23/2022	mg/L	36.4 (1)	10.1 (1)	20.2 (1)	19.5 (1)	310 (7.00)	486 (7)	66.1 (4)
Sodium	3/20/2023	mg/L	42.8 (1)	18.5 (1)	25.9 (1)	21.9 (1)	228 (1)	305 (1)	70.9 (1)
Sodium	5/8/2023	mg/L							
Sodium	9/26/2023	mg/L	36.4 (1.00)	12.1 (1.00)	25.6 (1.00)	23.4 (1.00)	264 (1.00)	424 (4.00)	48.5 (1.00)
Sulfate	3/12/2018	mg/L	23 (n/a)	374 (n/a)	130 (n/a)	55.6 (n/a)	3420 (n/a)	3430 (n/a)	1060 (n/a)
Sulfate	9/4/2018	mg/L	24.1 (n/a)	ND (1)	167 (n/a)	45.7 (n/a)	2640 (n/a)	3420 (n/a)	721 (n/a)
Sulfate	3/18/2019	mg/L	27.6 (n/a)	446 (n/a)	121 (n/a)	55.4 (n/a)	2860 (n/a)	3430 (n/a)	1030 (n/a)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Sulfate	8/27/2019	mg/L	29.3 (n/a)	368 (n/a)	156 (n/a)	52.1 (n/a)	3290 (n/a)	3420 (n/a)	971 (n/a)
Sulfate	3/26/2020	mg/L	23.0 (n/a)	428 (n/a)	162 (n/a)	53.6 (n/a)	3250 (n/a)	3470 (n/a)	1110 (n/a)
Sulfate	9/1/2020	mg/L	22.9 (n/a)	373 (n/a)	217 (n/a)	50.6 (n/a)	2770 (n/a)	3150 (n/a)	981 (n/a)
Sulfate	3/18/2021	mg/L	21.6 (2)	355 (50)	198 (20)	51.8 (5)	2640 (200)	3990 (200)	975 (50)
Sulfate	9/16/2021	mg/L	19.9 (2)	263 (20)	175 (20)	40.3 (5)	2140 (200)	3250 (200)	232 (20)
Sulfate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Sulfate	3/15/2022	mg/L	22.3 (1)	244 (10)	238 (10)	158 (5)	2180 (100)	4650 (100)	1020 (100)
Sulfate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Sulfate	9/23/2022	mg/L	20.4 (1)	350 (5)	143 (5)	47.5 (1)	548 (50)	777 (50)	948 (50)
Sulfate	3/20/2023	mg/L	22.8 (1)	463 (10)	230 (10)	55.8 (1)	2010 (50)	3220 (50)	1050 (20)
Sulfate	5/8/2023	mg/L							
Sulfate	9/26/2023	mg/L	19.9 (1.00)	305 (50.0)	194 (50.0)	47.6 (1.00)	1930 (200)	3280 (200)	805 (100)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Thallium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.001)
Thallium	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.1)	ND (0.1)	ND (0.002)
Thallium	3/18/2019	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Thallium	8/27/2019	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.0027)	ND (0.0027)	0.000331 (n/a)
Thallium	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.004)	ND (0.004)
Thallium	9/1/2020	mg/L	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00182)	ND (0.00182)	ND (0.00026)
Thallium	3/18/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Thallium	9/16/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Thallium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Thallium	3/15/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)	ND (0.01)	ND (0.004)
Thallium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Thallium	9/23/2022	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.007)	ND (0.004)
Thallium	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Thallium	5/8/2023	mg/L							
Thallium	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00400)	0.0495 (0.00400)
Total Dissolved Solids	3/12/2018	mg/L	336 (n/a)	866 (n/a)	540 (n/a)	408 (n/a)	13000 (n/a)	11000 (n/a)	1830 (n/a)
Total Dissolved Solids	9/4/2018	mg/L	406 (n/a)	1100 (n/a)	596 (n/a)	390 (n/a)	10000 (n/a)	11100 (n/a)	1450 (n/a)
Total Dissolved Solids	3/18/2019	mg/L	416 (n/a)	1140 (n/a)	524 (n/a)	436 (n/a)	10400 (n/a)	11000 (n/a)	2140 (n/a)
Total Dissolved Solids	8/27/2019	mg/L	434 (n/a)	994 (n/a)	594 (n/a)	432 (n/a)	13100 (n/a)	11300 (n/a)	2130 (n/a)
Total Dissolved Solids	3/26/2020	mg/L	404 (n/a)	1010 (n/a)	596 (n/a)	410 (n/a)	12800 (n/a)	11900 (n/a)	2530 (n/a)
Total Dissolved Solids	9/1/2020	mg/L	416 (n/a)	1080 (n/a)	634 (n/a)	420 (n/a)	12800 (n/a)	12000 (n/a)	2840 (n/a)
Total Dissolved Solids	3/18/2021	mg/L	415 (10)	935 (13.3)	780 (10)	444 (10)	10500 (333)	11800 (333)	2530 (66.7)
Total Dissolved Solids	9/16/2021	mg/L	407 (10)	961 (10)	630 (10)	431 (10)	10000 (333)	12000 (333)	861 (13.3)
Total Dissolved Solids	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	3/15/2022	mg/L	330 (50)	740 (50)	692 (50)	378 (50)	8560 (500)	8400 (2500)	2570 (50)
Total Dissolved Solids	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	9/23/2022	mg/L	354 (50)	954 (50)	494 (50)	360 (50)	8860 (250)	11200 (250)	2590 (250)
Total Dissolved Solids	3/20/2023	mg/L	338 (50)	928 (50)	730 (50)	388 (50)	8080 (250)	7300 (2500)	2700 (250)
Total Dissolved Solids	5/8/2023	mg/L							
Total Dissolved Solids	9/26/2023	mg/L	422 (50.0)	882 (50.0)	682 (50.0)	440 (50.0)	7780 (500)	12400 (500)	2510
Vanadium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.5)	ND (0.5)	ND (0.005)
Vanadium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)
Vanadium	3/18/2019	mg/L	ND (0.005)	0.0107 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vanadium	8/27/2019	mg/L	0.00177 (n/a)	0.0024 (n/a)	ND (0.00082)	ND (0.00082)	0.00499 (n/a)	ND (0.00082)	ND (0.00082)
Vanadium	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.02)	ND (0.02)
Vanadium	9/1/2020	mg/L	ND (0.00085)	ND (0.00085)	ND (0.00085)	ND (0.00085)	0.00913 (n/a)	0.00202 (n/a)	ND (0.00085)
Vanadium	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Vanadium	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Vanadium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Vanadium	3/15/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.02)
Vanadium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Vanadium	9/23/2022	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.035)	ND (0.02)
Vanadium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vanadium	5/8/2023	mg/L							
Vanadium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-1A (DwnGrd)	MW-1B (UpGrd)	MW-2A (DwnGrd)	MW-3L (UpGrd)	MW-4 (DwnGrd)	MW-4L (DwnGrd)	MW-5 (DwnGrd)
Zinc	3/12/2018	mg/L	0.0261 (n/a)	ND (0.02)	ND (0.02)	ND (0.02)	ND (2.0)	ND (2)	0.023 (n/a)
Zinc	9/4/2018	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.04)
Zinc	3/18/2019	mg/L	ND (0.02)	0.58 (n/a)	0.102 (n/a)	0.026 (n/a)	ND (0.02)	ND (0.02)	0.0974 (n/a)
Zinc	8/27/2019	mg/L	0.0102 (n/a)	0.011 (n/a)	ND (0.01)	0.0133 (n/a)	ND (0.01)	0.0121 (n/a)	0.0165 (n/a)
Zinc	3/26/2020	mg/L	0.0194 (n/a)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.2)	ND (0.08)	ND (0.08)
Zinc	9/1/2020	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Zinc	3/18/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Zinc	9/16/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Zinc	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Zinc	3/15/2022	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.2)	ND (0.2)	ND (0.08)
Zinc	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Zinc	9/23/2022	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.14)	ND (0.14)	ND (0.08)
Zinc	3/20/2023	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Zinc	5/8/2023	mg/L							
Zinc	9/26/2023	mg/L	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)

Notes:
mg/L - milligrams per Liter
ug/L - micrograms per Liter
umhos/cm - microhos per centimeter
n/a - not applicable
SU - standard unit
ND = non detect
(10) - detection limit

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
pH	3/12/2018	SU	7.4	11	7.7	8.5	7.8	7.6	7.6
pH	9/4/2018	SU	8	10.69	7.2	7.5	7.25	7.3	7.5
pH	3/18/2019	SU	7.4	10.67	8.5	7.5	7.45	7.3	7.68
pH	8/27/2019	SU	7.6	10.6	7.8	6.9	8.1	7.9	7.9
pH	3/26/2020	SU	7.23	9.93	7.39	9.89	7.41	7.14	7.26
pH	9/1/2020	SU	7.95	10.84	7.45	8.08	7.7	7.54	7.41
pH	3/18/2021	SU	9.05	13.41	8.32	-----	9.13	8.77	8.88
pH	9/16/2021	SU	7.4	11.1	7.5	8.2	7.4	7.2	7.1
pH	10/8/2021	SU	-----	-----	-----	-----	-----	-----	-----
pH	3/15/2022	SU	7.47	11.11	7.16	7.47	7.48	7.28	7.13
pH	4/19/2022	SU	-----	-----	-----	-----	-----	-----	-----
pH	9/23/2022	SU	10.34	11.29	7.92	7.31	9.12	7.46	7.89
pH	3/20/2023	SU	7.28	11.08	7.04	6.99	7.29	6.98	6.8
pH	5/8/2023	SU	----	----	----	----	----	----	----
pH	9/26/2023	SU	10.26	10.75	7.15	7.08	7.42	6.95	6.93
Specific Conductivity	3/12/2018	umhos/cm	702 (n/a)	16170 (n/a)	1306 (n/a)	949 (n/a)	7510 (n/a)	797 (n/a)	1265 (n/a)
Specific Conductivity	9/4/2018	umhos/cm	745 (n/a)	14360 (n/a)	1328 (n/a)	822 (n/a)	7320 (n/a)	799 (n/a)	1310 (n/a)
Specific Conductivity	3/18/2019	umhos/cm	640 (n/a)	15180 (n/a)	1172 (n/a)	887 (n/a)	7430 (n/a)	689 (n/a)	1362 (n/a)
Specific Conductivity	8/27/2019	umhos/cm	625 (n/a)	15850 (n/a)	1307 (n/a)	904 (n/a)	6920 (n/a)	673 (n/a)	1169 (n/a)
Specific Conductivity	3/26/2020	umhos/cm	728 (n/a)	17317 (n/a)	1467 (n/a)	1209 (n/a)	7925 (n/a)	918 (n/a)	1574 (n/a)
Specific Conductivity	9/1/2020	umhos/cm	532 (n/a)	12072 (n/a)	1113 (n/a)	870 (n/a)	5967 (n/a)	806 (n/a)	1263 (n/a)
Specific Conductivity	3/18/2021	umhos/cm	620 (1)	11900 (n/a)	1140 (n/a)	-----	470 (n/a)	990 (1)	1220 (1)
Specific Conductivity	9/16/2021	umhos/cm	710 (n/a)	15610 (n/a)	3100 (n/a)	2550 (n/a)	7880 (n/a)	931 (n/a)	1686 (n/a)
Specific Conductivity	10/8/2021	umhos/cm	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	3/15/2022	umhos/cm	683 (N/A)	13940 (N/A)	1200 (N/A)	2314 (N/A)	8076 (N/A)	899 (N/A)	1689 (N/A)
Specific Conductivity	4/19/2022	umhos/cm	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/23/2022	umhos/cm	758 (N/A)	19329 (N/A)	1962 (N/A)	1870 (N/A)	11467 (N/A)	1495 (N/A)	3162 (N/A)
Specific Conductivity	3/20/2023	umhos/cm	747 (N/A)	14710 (N/A)	1286 (N/A)	1500 (N/A)	8394 (N/A)	1022 (N/A)	2155 (N/A)
Specific Conductivity	5/8/2023	umhos/cm	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/26/2023	umhos/cm	674	12610	1287	1052	7641	850	2068
Alkalinity, Total	9/1/2020	mg/L	205 (n/a)	1320 (n/a)	351 (n/a)	146 (n/a)	237 (n/a)	394 (n/a)	335 (n/a)
Alkalinity, Total	9/16/2021	mg/L	368 (20)	1660 (100)	258 (20)	89 (20)	259 (20)	371 (20)	312 (20)
Alkalinity, Total	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	3/15/2022	mg/L	402 (10)	1830 (10)	343 (10)	206 (10)	245 (10)	392 (10)	323 (10)
Alkalinity, Total	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	9/23/2022	mg/L	154 (10)	1680 (25)	409 (10)	336 (10)	269 (10)	409 (10)	328 (10)
Alkalinity, Total	3/20/2023	mg/L	349 (5)	1670 (5)	365 (5)	365 (5)	268 (5)	409 (5)	331 (5)
Alkalinity, Total	5/8/2023	mg/L	----	----	----	----	----	----	----
Alkalinity, Total	9/26/2023	mg/L	59.4 (5.00)	1450 (5.00)	357 (5.00)	363 (5.00)	279 (5.00)	386 (5.00)	322 (5.00)
Alkalinity, Bicarbonate	9/16/2021	mg/L	368 (20)	ND (100)	258 (20)	89.0 (20)	259 (20)	371 (20)	312 (20)
Alkalinity, Bicarbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	3/15/2022	mg/L		ND (10)	343 (10)	206 (10)	245 (10)	392 (10)	323 (10)
Alkalinity, Bicarbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/23/2022	mg/L	154 (10)	ND (25)	409 (10)	336 (10)	269 (10)	409 (10)	328 (10)
Alkalinity, Bicarbonate	3/20/2023	mg/L	349 (5)	67.5 (5)	365 (5)	365 (5)	268 (5)	409 (5)	331 (5)
Alkalinity, Bicarbonate	5/8/2023	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/26/2023	mg/L	59.4 (5.00)	53.1 (5.00)	357 (5.00)	363 (5.00)	279 (5.00)	386 (5.00)	322 (5.00)
Alkalinity, Carbonate	9/16/2021	mg/L	ND (20)	1580 (100)	ND (20)	ND (20)	ND (20)	ND (20)	ND (20)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Alkalinity, Carbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	3/15/2022	mg/L	ND (10)	1820 (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Alkalinity, Carbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	9/23/2022	mg/L	ND (10)	1680 (25)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	1600 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	1600 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Alkalinity, Carbonate	5/8/2023	mg/L							
Alkalinity, Carbonate	9/26/2023	mg/L	ND (5.00)	1400 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	ND (5.00)
Bromate	3/18/2021	ug/L	402 (10)	ND (500)	ND (500)	-----	ND (500)	ND (500)	ND (500)
Bromate	9/16/2021	ug/L	ND (5)	ND (100)	ND (10)	ND (10)	ND (20)	ND (10)	ND (5)
Bromate	10/8/2021	ug/L	-----	-----	-----	-----	-----	-----	-----
Bromate	3/15/2022	ug/L	11.3 (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Bromate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Bromate	9/23/2022	ug/L	ND (5)	ND (500)	ND (5)	ND (5)	ND (500)	ND (5)	ND (5)
Bromate	3/20/2023	ug/L	ND (5)	ND (125)	ND (5)	11.7 (5)	ND (125)	ND (5)	ND (5)
Bromate	5/8/2023	ug/L							
Bromate	9/26/2023	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Aluminium	3/12/2018	mg/L	ND (0.05)	ND (5)	0.374 (n/a)	0.19 (n/a)	ND (2.5)	ND (0.05)	0.0818 (n/a)
Aluminium	9/4/2018	mg/L	0.517 (n/a)	ND (5)	0.367 (n/a)	2.08 (n/a)	ND (0.05)	0.526 (n/a)	ND (0.05)
Aluminium	3/18/2019	mg/L	0.0968 (n/a)	0.0355 (n/a)	0.142 (n/a)	0.324 (n/a)	ND (0.135)	ND (0.05)	0.0797 (n/a)
Aluminium	8/27/2019	mg/L	0.0484 (n/a)	0.0364 (n/a)	0.295 (n/a)	1.09 (n/a)	0.166 (n/a)	0.0435 (n/a)	0.437 (n/a)
Aluminium	3/26/2020	mg/L	ND (0.05)	ND (0.05)	0.0569 (n/a)	4.04 (n/a)	ND (0.2)	0.0497 (n/a)	0.0595 (n/a)
Aluminium	9/1/2020	mg/L	ND (0.012)	0.0128 (n/a)	0.0233 (n/a)	1.12 (n/a)	ND (0.06)	0.0296 (n/a)	0.0263 (n/a)
Aluminium	3/18/2021	mg/L	ND (0.075)	ND (0.075)	ND (0.075)	-----	ND (0.075)	0.158 (0.075)	0.0825 (0.075)
Aluminium	9/16/2021	mg/L	0.102 (0.075)	ND (0.075)	1.20 (0.075)	0.511 (0.075)	ND (0.075)	0.541 (0.075)	0.12 (0.075)
Aluminium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Aluminium	3/15/2022	mg/L	0.0951 (0.05)	ND (0.5)	ND (0.05)	0.114 (0.05)	ND (0.25)	ND (0.05)	ND (0.2)
Aluminium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Aluminium	9/23/2022	mg/L	ND (0.05)	ND (0.35)	ND (0.05)	0.130 (0.05)	ND (0.35)	ND (0.05)	ND (0.35)
Aluminium	3/20/2023	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	0.0565 (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Aluminium	5/8/2023	mg/L							
Aluminium	9/26/2023	mg/L	ND (0.0500)	ND (5.00)	ND (0.0500)	0.111 (0.0500)	ND (0.0500)	0.258 (0.0500)	ND (0.200)
Antimony	3/12/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Antimony	9/4/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Antimony	3/18/2019	mg/L	0.00163 (n/a)	0.00134 (n/a)	ND (0.001)	ND (0.001)	ND (0.00053)	ND (0.001)	ND (0.001)
Antimony	8/27/2019	mg/L	ND (0.00053)	0.00091 (n/a)	ND (0.00053)	ND (0.00053)	ND (0.00053)	ND (0.00053)	ND (0.00053)
Antimony	3/26/2020	mg/L	ND (0.001)	ND (0.001)	0.000696 (n/a)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Antimony	9/1/2020	mg/L	0.00168 (n/a)	0.00223 (n/a)	ND (0.00051)	0.000751 (n/a)	ND (0.00051)	ND (0.00051)	ND (0.00051)
Antimony	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	-----	ND (0.015)	ND (0.015)	ND (0.015)
Antimony	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Antimony	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Antimony	3/15/2022	mg/L	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.01)	ND (0.002)	ND (0.008)
Antimony	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Antimony	9/23/2022	mg/L	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.14)
Antimony	3/20/2023	mg/L	0.00275 (0.002)	ND (0.002)	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.002)
Antimony	5/8/2023	mg/L							
Antimony	9/26/2023	mg/L	0.00336 (0.002)	ND (0.2)	ND (0.002)	ND (0.002)	ND (0.008)	ND (0.002)	ND (0.008)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Arsenic	3/12/2018	mg/L	ND (0.002)	ND (0.2)	ND (0.008)	ND (0.002)	ND (0.1)	ND (0.002)	ND (0.002)
Arsenic	9/4/2018	mg/L	ND (0.002)	ND (0.2)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Arsenic	3/18/2019	mg/L	ND (0.002)	0.0375 (n/a)	0.00227 (n/a)	ND (0.002)	ND (0.00075)	ND (0.002)	ND (0.002)
Arsenic	8/27/2019	mg/L	ND (0.00075)	0.0469 (n/a)	ND (0.003)	0.0013 (n/a)	ND (0.00075)	ND (0.00075)	ND (0.00075)
Arsenic	3/26/2020	mg/L	ND (0.002)	0.0461 (n/a)	ND (0.002)	ND (0.008)	ND (0.008)	ND (0.002)	ND (0.002)
Arsenic	9/1/2020	mg/L	ND (0.00088)	0.0662 (n/a)	ND (0.00088)	0.00226 (n/a)	ND (0.00088)	ND (0.00088)	ND (0.00088)
Arsenic	3/18/2021	mg/L	ND (0.01)	0.0639 (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Arsenic	9/16/2021	mg/L	ND (0.01)	0.055 (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	ND (0.01)
Arsenic	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Arsenic	3/15/2022	mg/L	ND (0.002)	0.0429 (0.02)	ND (0.002)	ND (0.002)	ND (0.01)	ND (0.002)	ND (0.008)
Arsenic	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Arsenic	9/23/2022	mg/L	ND (0.002)	0.0454 (0.02)	ND (0.002)	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.014)
Arsenic	3/20/2023	mg/L	ND (0.002)	0.0246 (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)	ND (0.002)
Arsenic	5/8/2023	mg/L							
Arsenic	9/26/2023	mg/L	ND (0.00200)	ND (0.200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	0.00201 (0.00200)	ND (0.00800)
Barium	3/12/2018	mg/L	0.126 (n/a)	ND (0.2)	0.144 (n/a)	0.0891 (n/a)	ND (0.1)	0.0617 (n/a)	0.0694 (n/a)
Barium	9/4/2018	mg/L	0.145 (n/a)	ND (0.2)	0.129 (n/a)	0.136 (n/a)	ND (0.1)	0.0691 (n/a)	0.714 (n/a)
Barium	3/18/2019	mg/L	0.105 (n/a)	0.0151 (n/a)	0.0867 (n/a)	0.0964 (n/a)	0.0423 (n/a)	0.0666 (n/a)	0.0738 (n/a)
Barium	8/27/2019	mg/L	0.149 (n/a)	0.0123 (n/a)	0.0819 (n/a)	0.104 (n/a)	0.0501 (n/a)	0.0622 (n/a)	0.077 (n/a)
Barium	3/26/2020	mg/L	0.156 (n/a)	0.0155 (n/a)	0.0789 (n/a)	0.118 (n/a)	0.0401 (n/a)	0.0624 (n/a)	0.0729 (n/a)
Barium	9/1/2020	mg/L	0.089 (n/a)	0.0143 (n/a)	0.0796 (n/a)	0.053 (n/a)	0.0396 (n/a)	0.065 (n/a)	0.0713 (n/a)
Barium	3/18/2021	mg/L	0.157 (0.005)	0.0147 (0.005)	0.0796 (0.005)	-----	0.0454 (0.005)	0.0658 (0.005)	0.0688 (0.005)
Barium	9/16/2021	mg/L	0.147 (0.005)	0.0145 (0.005)	0.0363 (0.005)	0.0436 (0.005)	0.0432 (0.005)	0.0706 (0.005)	0.0671 (0.005)
Barium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Barium	3/15/2022	mg/L	0.161 (0.002)	ND (0.02)	0.0817 (0.002)	0.0617 (0.002)	0.0490 (0.01)	0.0633 (0.002)	0.0633 (0.008)
Barium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Barium	9/23/2022	mg/L	0.138 (0.002)	0.0185 (0.014)	0.0810 (0.002)	0.0813 (0.002)	0.0519 (0.014)	0.0635 (0.002)	0.0726 (0.14)
Barium	3/20/2023	mg/L	0.0936 (0.002)	0.0132 (0.002)	0.0688 (0.002)	0.0784 (0.002)	0.0387 (0.002)	0.0552 (0.002)	0.0594 (0.002)
Barium	5/8/2023	mg/L							
Barium	9/26/2023	mg/L	0.0828 (0.00200)	ND (0.200)	0.0728	0.0828 (0.00200)	0.0375 (0.00200)	0.0614 (0.00200)	0.0587 (0.00800)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Beryllium	3/12/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Beryllium	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	3/18/2019	mg/L	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)	ND (0.00135)	ND (0.001)	ND (0.001)
Beryllium	8/27/2019	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00108)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Beryllium	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Beryllium	9/1/2020	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Beryllium	3/18/2021	mg/L	0.001 (0.001)	ND (0.001)	0.0016 (0.001)	-----	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	9/16/2021	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Beryllium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Beryllium	3/15/2022	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.004)
Beryllium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Beryllium	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.007)
Beryllium	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.01)
Beryllium	5/8/2023	mg/L							
Beryllium	9/26/2023	mg/L	ND (0.00100)	ND (0.100)	ND (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00400)
Boron	3/12/2018	mg/L	ND (0.2)	ND (20)	ND (0.8)	0.41 (n/a)	ND (10)	0.94 (n/a)	0.496 (n/a)
Boron	9/4/2018	mg/L	ND (0.2)	ND (20)	0.70 (n/a)	0.476 (n/a)	ND (10)	1.04 (n/a)	ND (0.2)
Boron	3/18/2019	mg/L	ND (0.2)	0.259 (n/a)	0.625 (n/a)	0.383 (n/a)	ND (0.55)	0.902 (n/a)	0.419 (n/a)
Boron	8/27/2019	mg/L	0.184 (n/a)	0.25 (n/a)	0.639 (n/a)	0.428 (n/a)	0.239 (n/a)	0.772 (n/a)	0.477 (n/a)
Boron	3/26/2020	mg/L	0.202 (n/a)	0.36 (n/a)	0.592 (n/a)	ND (0.8)	ND (0.8)	0.917 (n/a)	0.427 (n/a)
Boron	9/1/2020	mg/L	0.131 (n/a)	ND (1.6)	0.712 (n/a)	0.204 (n/a)	ND (0.4)	0.942 (n/a)	0.46 (n/a)
Boron	3/18/2021	mg/L	0.196 (0.1)	0.349 (0.1)	0.712 (0.1)	-----	0.275 (0.1)	0.986 (0.1)	0.428 (0.1)
Boron	9/16/2021	mg/L	0.173 (0.1)	0.32 (0.1)	0.264 (0.1)	0.126 (0.1)	0.278 (0.1)	0.883 (0.1)	0.403 (0.1)
Boron	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Boron	3/15/2022	mg/L	0.194 (0.01)	ND (1)	0.744 (0.1)	0.251 (0.1)	ND (0.5)	0.966 (0.1)	0.416 (0.4)
Boron	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Boron	9/23/2022	mg/L	0.183 (0.1)	ND (0.7)	0.813 (0.1)	0.419 (0.1)	ND (0.7)	0.954 (0.1)	ND (0.7)
Boron	3/20/2023	mg/L	0.101 (0.1)	0.198 (0.1)	0.638 (0.1)	0.362 (0.1)	0.201 (0.1)	0.767 (0.1)	0.397 (0.1)
Boron	5/8/2023	mg/L							
Boron	9/26/2023	mg/L	0.100 (0.100)	ND (10.0)	0.861 (0.100)	0.424 (0.100)	ND (0.400)	0.988 (0.100)	0.456 (0.400)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Cadmium	3/12/2018	mg/L	ND (0.0005)	ND (0.05)	ND (0.002)	ND (0.0005)	ND (0.025)	ND (0.0005)	ND (0.0005)
Cadmium	9/4/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)
Cadmium	3/18/2019	mg/L	ND (0.0005)	ND (0.00077)	0.000721 (n/a)	ND (0.0005)	ND (0.000138)	ND (0.0005)	ND (0.0005)
Cadmium	8/27/2019	mg/L	0.000082 (n/a)	ND (n/a)	0.000729 (n/a)	0.0001 (n/a)	0.000281 (n/a)	ND (0.000039)	ND (0.000039)
Cadmium	3/26/2020	mg/L	ND (0.0001)	ND (0.0001)	0.000373 (n/a)	0.000492 (n/a)	ND (0.0004)	0.000118 (n/a)	ND (0.0001)
Cadmium	9/1/2020	mg/L	ND (0.000049)	0.0002 (n/a)	0.000137 (n/a)	0.000214 (n/a)	0.000091 (n/a)	0.00008 (n/a)	0.000059 (n/a)
Cadmium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	ND (0.005)	ND (0.005)	ND (0.005)
Cadmium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cadmium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Cadmium	3/15/2022	mg/L	ND (0.0001)	ND (0.001)	ND (0.0001)	ND (0.0001)	ND (0.0005)	ND (0.0001)	ND (0.0004)
Cadmium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Cadmium	9/23/2022	mg/L	0.000334 (0.001)	ND (0.0007)	ND (0.0001)	ND (0.0001)	ND (0.0007)	ND (0.0001)	ND (0.0007)
Cadmium	3/20/2023	mg/L	ND (0.0001)	ND (0.004)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	ND (0.0001)
Cadmium	5/8/2023	mg/L							
Cadmium	9/26/2023	mg/L	ND (0.0002)	ND (0.0002)	0.000217 (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0008)
Calcium	3/12/2018	mg/L	74.9 (n/a)	ND (20)	176 (n/a)	92.3 (n/a)	246 (n/a)	73.8 (n/a)	123 (n/a)
Calcium	9/4/2018	mg/L	78.3 (n/a)	ND (20)	163 (n/a)	370 (n/a)	267 (n/a)	87.9 (n/a)	225 (n/a)
Calcium	3/18/2019	mg/L	71.2 (n/a)	3.26 (n/a)	164 (n/a)	111 (n/a)	216 (n/a)	80.5 (n/a)	126 (n/a)
Calcium	8/27/2019	mg/L	85.1 (n/a)	5.30 (n/a)	238 (n/a)	179 (n/a)	234 (n/a)	75.6 (n/a)	136 (n/a)
Calcium	3/26/2020	mg/L	81.6 (n/a)	3.73 (n/a)	138 (n/a)	473 (n/a)	231 (n/a)	73.4 (n/a)	146 (n/a)
Calcium	9/1/2020	mg/L	56.7 (n/a)	4.05 (n/a)	133 (n/a)	125 (n/a)	287 (n/a)	82.9 (n/a)	139 (n/a)
Calcium	3/18/2021	mg/L	77.8 (0.2)	2.46 (0.2)	115 (0.2)	-----	199 (0.2)	94.3 (0.2)	146 (0.2)
Calcium	9/16/2021	mg/L	73.2 (0.2)	1.40 (0.2)	356 (0.2)	55.7 (0.2)	193 (0.2)	84.5 (0.2)	143 (0.2)
Calcium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Calcium	3/15/2022	mg/L	86.2 (0.5)	ND (5)	125 (0.5)	101 (0.5)	260 (2.5)	102 (0.5)	149 (2)
Calcium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Calcium	9/23/2022	mg/L	70.7 (0.5)	ND (3.5)	118 (0.5)	86.7 (0.5)	266 (3.5)	90 (0.5)	187 (3.5)
Calcium	3/20/2023	mg/L	53.1 (0.5)	1.43 (0.5)	108 (0.5)	80.3 (0.5)	205 (0.5)	88.7 (0.5)	162 (0.5)
Calcium	5/8/2023	mg/L							
Calcium	9/26/2023	mg/L	51.4 (0.500)	ND (50.0)	111 (0.500)	90.3 (0.500)	211 (2.00)	111 (0.500)	161 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Chloride	3/12/2018	mg/L	ND (5)	1910 (n/a)	112 (n/a)	56.7 (n/a)	456 (n/a)	9.13 (n/a)	53.5 (n/a)
Chloride	9/4/2018	mg/L	ND (1)	1660 (n/a)	115 (n/a)	45.4 (n/a)	464 (n/a)	14.3 (n/a)	32.3 (n/a)
Chloride	3/18/2019	mg/L	4.15 (n/a)	1730 (n/a)	109 (n/a)	83.5 (n/a)	471 (n/a)	9.83 (n/a)	56.9 (n/a)
Chloride	8/27/2019	mg/L	1.43 (n/a)	1690 (n/a)	120 (n/a)	35.6 (n/a)	473 (n/a)	8.11 (n/a)	65.0 (n/a)
Chloride	3/26/2020	mg/L	5.35 (n/a)	1790 (n/a)	132 (n/a)	379 (n/a)	496 (n/a)	11.6 (n/a)	80.5 (n/a)
Chloride	9/1/2020	mg/L	5.90 (n/a)	1680 (n/a)	123 (n/a)	180 (n/a)	487 (n/a)	10.7 (n/a)	139 (n/a)
Chloride	3/18/2021	mg/L	2.10 (1)	1730 (200)	114 (20)	-----	595 (100)	19.9 (2)	85.5 (10)
Chloride	9/16/2021	mg/L	2.40 (1)	1450 (200)	379 (100)	675 (100)	450 (100)	18.8 (2)	89.3 (20)
Chloride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Chloride	3/15/2022	mg/L	1.79 (1)	1460 (100)	98.1 (1)	683 (20)	625 (100)	23.2 (1)	104 (10)
Chloride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Chloride	9/23/2022	mg/L	6.29 (1)	1420 (50)	93.0 (1)	305 (5)	508 (50)	22.7 (1)	1220 (50)
Chloride	3/20/2023	mg/L	ND (1)	1420 (5)	90.5 (1)	172 (10)	587 (20)	24.9 (1)	110 (10)
Chloride	5/8/2023	mg/L							
Chloride	9/26/2023	mg/L	7.89 (1.00)	1380 (200)	83.5 (1.00)	102 (50.0)	515 (200)	23.0 (1.00)	128 (100)
Chromium	3/12/2018	mg/L	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Chromium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.01)	0.00578 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	3/18/2019	mg/L	ND (0.005)	0.00999 (n/a)	0.00535 (n/a)	ND (0.005)	0.00114 (n/a)	ND (0.005)	ND (0.005)
Chromium	8/27/2019	mg/L	ND (0.00098)	ND (0.00098)	ND (0.00392)	0.00361 (n/a)	ND (0.00098)	ND (0.00098)	0.000997 (n/a)
Chromium	3/26/2020	mg/L	ND (0.005)	ND (0.005)	0.00139 (n/a)	0.00191 (n/a)	ND (0.02)	ND (0.005)	ND (0.005)
Chromium	9/1/2020	mg/L	ND (0.0011)	0.0002 (n/a)	ND (0.0011)	0.00438 (n/a)	ND (0.0011)	ND (0.0011)	ND (0.0011)
Chromium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Chromium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Chromium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Chromium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	86.7 (0.5)	ND (0.035)	ND (0.005)	ND (0.0350)
Chromium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chromium	5/8/2023	mg/L							
Chromium	9/26/2023	mg/L	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Cobalt	3/12/2018	mg/L	ND (0.0005)	ND (0.05)	0.00243 (n/a)	0.000857 (n/a)	ND (0.025)	ND (0.0005)	ND (0.0005)
Cobalt	9/4/2018	mg/L	0.000529 (n/a)	ND (0.0005)	0.00482 (n/a)	0.00375 (n/a)	ND (0.025)	0.00104 (n/a)	ND (0.0005)
Cobalt	3/18/2019	mg/L	0.000569 (n/a)	0.000597 (n/a)	0.00926 (n/a)	0.000979 (n/a)	0.00273 (n/a)	ND (0.0005)	0.000942 (n/a)
Cobalt	8/27/2019	mg/L	0.000921 (n/a)	0.000331 (n/a)	0.00498 (n/a)	0.00578 (n/a)	0.00135 (n/a)	0.000284 (n/a)	0.000539 (n/a)
Cobalt	3/26/2020	mg/L	0.000602 (n/a)	0.000246 (n/a)	0.00138 (n/a)	0.00827 (n/a)	0.00191 (n/a)	0.000503 (n/a)	0.000629 (n/a)
Cobalt	9/1/2020	mg/L	0.000115 (n/a)	0.000434 (n/a)	0.00375 (n/a)	0.00343 (n/a)	0.00251 (n/a)	0.00102 (n/a)	0.000701 (n/a)
Cobalt	3/18/2021	mg/L	ND (0.005)	ND (0.005)	0.0051 (0.005)	-----	ND (0.005)	ND (0.005)	ND (0.005)
Cobalt	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Cobalt	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Cobalt	3/15/2022	mg/L	0.000611 (0.0005)	ND (0.005)	0.00449 (0.0005)	0.00125 (0.0005)	0.00314 (0.0025)	0.00103 (0.0005)	ND (0.002)
Cobalt	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Cobalt	9/23/2022	mg/L	0.000637 (0.0005)	ND (0.0035)	0.00369 (0.0005)	0.00148 (0.0005)	0.00379 (0.0035)	0.00121 (0.0005)	ND (0.0035)
Cobalt	3/20/2023	mg/L	ND (0.0005)	ND (0.0005)	0.00209 (0.0005)	0.00112 (0.0005)	0.00319 (0.005)	0.000715 (0.0005)	ND (0.0005)
Cobalt	5/8/2023	mg/L							
Cobalt	9/26/2023	mg/L	ND (0.000500)	ND (0.0500)	0.00357 (0.000500)	0.00146 (0.000500)	0.00257 (0.00200	0.00124 (0.000500)	ND (0.00200)
Copper	3/12/2018	mg/L	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Copper	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.01)	0.0174 (n/a)	ND (0.005)	0.00572 (n/a)	ND (0.005)
Copper	3/18/2019	mg/L	0.00856 (n/a)	ND (0.002)	0.0703 (n/a)	ND (0.005)	0.0255 (n/a)	ND (0.005)	ND (0.005)
Copper	8/27/2019	mg/L	ND (0.002)	ND (0.002)	0.0201 (n/a)	0.00794 (n/a)	0.00871 (n/a)	ND (0.002)	ND (0.002)
Copper	3/26/2020	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	0.0305 (n/a)	ND (0.02)	ND (0.005)	ND (0.005)
Copper	9/1/2020	mg/L	ND (0.0015)	0.00185 (n/a)	ND (0.0015)	0.0106 (n/a)	ND (0.0015)	ND (0.0015)	0.00613 (n/a)
Copper	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Copper	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Copper	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Copper	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Copper	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Copper	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.035)
Copper	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.05)
Copper	5/8/2023	mg/L							
Copper	9/26/2023	mg/L	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Fluoride	3/12/2018	mg/L	ND (0.5)	3.93 (n/a)	0.501 (n/a)	ND (0.5)	0.663 (n/a)	0.616 (n/a)	ND (0.5)
Fluoride	9/4/2018	mg/L	0.203 (n/a)	1.41 (n/a)	0.446 (n/a)	0.319 (n/a)	0.395 (n/a)	0.488 (n/a)	ND (0.1)
Fluoride	3/18/2019	mg/L	0.109 (n/a)	1.84 (n/a)	0.912 (n/a)	0.516 (n/a)	0.405 (n/a)	0.517 (n/a)	ND (0.5)
Fluoride	8/27/2019	mg/L	0.389 (n/a)	ND (0.045)	0.125 (n/a)	0.636 (n/a)	ND (0.045)	0.621 (n/a)	0.079 (n/a)
Fluoride	3/26/2020	mg/L	ND (0.5)	1.78 (n/a)	0.658 (n/a)	0.0719 (n/a)	0.727 (n/a)	0.606 (n/a)	0.318 (n/a)
Fluoride	9/1/2020	mg/L	0.156 (n/a)	1.20 (n/a)	ND (0.046)	0.274 (n/a)	0.221 (n/a)	0.586 (n/a)	ND (0.046)
Fluoride	3/18/2021	mg/L	0.29 (0.2)	2.20 (0.2)	ND (0.2)	-----	0.82 (0.2)	0.64 (0.2)	0.39 (0.2)
Fluoride	9/16/2021	mg/L	0.27 (0.2)	0.39 (0.2)	0.45 (0.2)	ND (0.2)	0.66 (0.2)	0.64 (0.2)	0.25 (0.2)
Fluoride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Fluoride	3/15/2022	mg/L	ND (0.1)	ND (10)	0.121 (0.1)	ND (0.1)	ND (0.1)	0.145 (0.1)	0.139 (0.1)
Fluoride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Fluoride	9/23/2022	mg/L	ND (0.1)	4.7 (0.1)	0.701 (0.1)	ND (0.1)	2.97 (0.1)	0.521 (0.1)	0.262 (0.1)
Fluoride	3/20/2023	mg/L	0.152 (0.1)	2.36 (0.1)	ND (0.1)	0.472 (0.1)	0.881 (0.1)	0.876 (0.1)	0.316 (0.1)
Fluoride	5/8/2023	mg/L							
Fluoride	9/26/2023	mg/L	ND (0.200)	6.03 (0.200)	0.509 (0.200)	0.269 (0.200)	0.553 (0.200)	0.567 (0.200)	0.333 (0.200)
Lead	3/12/2018	mg/L	ND (0.0005)	ND (0.05)	0.00217 (n/a)	0.00139 (n/a)	ND (0.025)	ND (0.0005)	0.00102 (n/a)
Lead	9/4/2018	mg/L	0.000614 (n/a)	ND (0.05)	0.00258 (n/a)	0.012 (n/a)	ND (0.0005)	0.00144 (n/a)	ND (0.0005)
Lead	3/18/2019	mg/L	0.000776 (n/a)	ND (0.0027)	0.00173 (n/a)	0.0016 (n/a)	ND (0.00027)	ND (0.0005)	0.00146 (n/a)
Lead	8/27/2019	mg/L	0.000377 (n/a)	ND (0.0027)	0.00261 (n/a)	0.00581 (n/a)	0.00124 (n/a)	0.000357 (n/a)	0.00141 (n/a)
Lead	3/26/2020	mg/L	ND (0.0005)	ND (0.005)	0.000705 (n/a)	0.0194 (n/a)	ND (0.002)	0.000394 (n/a)	0.000962 (n/a)
Lead	9/1/2020	mg/L	0.000132 (n/a)	ND (0.0022)	0.000359 (n/a)	0.0067 (n/a)	0.000186 (n/a)	0.000468 (n/a)	0.00062 (n/a)
Lead	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Lead	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Lead	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Lead	3/15/2022	mg/L	0.000506 (0.0005)	ND (0.005)	ND (0.0005)	0.000644 (0.0005)	ND (0.0025)	ND (0.0005)	ND (0.002)
Lead	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Lead	9/23/2022	mg/L	ND (0.0005)	ND (0.0035)	ND (0.0005)	ND (0.0005)	ND (0.0035)	ND (0.0005)	ND (0.0035)
Lead	3/20/2023	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)	ND (0.0005)
Lead	5/8/2023	mg/L							
Lead	9/26/2023	mg/L	ND (0.000500)	ND (0.500)	0.000515 (0.000500)	ND (0.000500)	ND (0.000500)	0.00179 (0.000500)	ND (0.00200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Lithium	3/12/2018	mg/L	0.0215 (n/a)	ND (1)	0.0698 (n/a)	0.0403 (n/a)	ND (0.5)	0.0525 (n/a)	0.0434 (n/a)
Lithium	9/4/2018	mg/L	0.0218 (n/a)	ND (1)	0.0752 (n/a)	0.0422 (n/a)	ND (0.5)	0.0603 (n/a)	0.0158 (n/a)
Lithium	3/18/2019	mg/L	0.0343 (n/a)	0.702 (n/a)	0.0781 (n/a)	0.0364 (n/a)	0.176 (n/a)	0.0575 (n/a)	0.0498 (n/a)
Lithium	8/27/2019	mg/L	0.0258 (n/a)	0.604 (n/a)	0.0806 (n/a)	0.0383 (n/a)	0.205 (n/a)	0.0513 (n/a)	0.0552 (n/a)
Lithium	3/26/2020	mg/L	0.0253 (n/a)	0.698 (n/a)	0.0774 (n/a)	0.0114 (n/a)	0.192 (n/a)	0.0582 (n/a)	0.0579 (n/a)
Lithium	9/1/2020	mg/L	0.0512 (n/a)	0.941 (n/a)	0.0783 (n/a)	0.0186 (n/a)	0.213 (n/a)	0.0603 (n/a)	0.0584 (n/a)
Lithium	3/18/2021	mg/L	0.0295 (0.01)	0.77 (0.01)	0.081 (0.01)	-----	0.216 (0.01)	0.0634 (0.01)	0.0658 (0.01)
Lithium	9/16/2021	mg/L	0.0269 (0.01)	0.693 (0.01)	0.083 (0.01)	0.0145 (0.01)	0.192 (0.01)	0.0597 (0.01)	0.0676 (0.01)
Lithium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Lithium	3/15/2022	mg/L	0.0260 (0.01)	0.749 (0.1)	0.0707 (0.01)	0.0216 (0.01)	0.270 (0.05)	0.0659 (0.01)	0.0723 (0.04)
Lithium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Lithium	9/23/2022	mg/L	0.0260 (0.01)	0.824 (0.07)	0.0702 (0.01)	0.0316 (0.01)	0.270 (0.07)	0.0536 (0.01)	0.0888 (0.07)
Lithium	3/20/2023	mg/L	0.0460 (0.01)	0.453 (0.01)	0.0547 (0.01)	0.0315 (0.01)	0.177 (0.01)	0.0490 (0.01)	0.0682 (0.01)
Lithium	5/8/2023	mg/L							
Lithium	9/26/2023	mg/L	0.0811 (0.0100)	ND (1.00)	0.0165 (0.0100)	0.0333 (0.0100)	ND (0.280)	0.0670 (0.0100)	0.0882 (0.0400)
Magnesium	3/12/2018	mg/L	39.7 (n/a)	ND (5)	77.5 (n/a)	41.4 (n/a)	126 (n/a)	44.2 (n/a)	66.4 (n/a)
Magnesium	9/4/2018	mg/L	41.5 (n/a)	7.58 (n/a)	82.4 (n/a)	77.6 (n/a)	139 (n/a)	49.2 (n/a)	60.9 (n/a)
Magnesium	3/18/2019	mg/L	33.8 (n/a)	8.00 (n/a)	88.0 (n/a)	44.7 (n/a)	116 (n/a)	46.2 (n/a)	68.9 (n/a)
Magnesium	8/27/2019	mg/L	46.9 (n/a)	9.34 (n/a)	94.4 (n/a)	47.5 (n/a)	119 (n/a)	41.9 (n/a)	71.0 (n/a)
Magnesium	3/26/2020	mg/L	47.0 (n/a)	8.00 (n/a)	84.7 (n/a)	22.3 (n/a)	113 (n/a)	45.2 (n/a)	79.1 (n/a)
Magnesium	9/1/2020	mg/L	21.6 (n/a)	7.79 (n/a)	86.2 (n/a)	16.1 (n/a)	146 (n/a)	50.0 (n/a)	79.8 (n/a)
Magnesium	3/18/2021	mg/L	47.0 (0.05)	4.18 (0.05)	81.5 (0.05)	-----	119 (0.05)	58.0 (0.05)	81.9 (0.05)
Magnesium	9/16/2021	mg/L	43.3 (0.05)	2.34 (0.05)	144 (0.05)	8.60 (0.05)	106 (0.05)	52.0 (0.05)	81.1 (0.05)
Magnesium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Magnesium	3/15/2022	mg/L	46.9 (0.5)	ND (5)	70.1 (0.5)	20.5 (0.5)	133 (0.05)	57.9 (0.5)	81.7 (2)
Magnesium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Magnesium	9/23/2022	mg/L	36.1 (0.5)	ND (3.5)	67.0 (0.5)	37.1 (0.5)	134 (3.5)	52.4 (0.5)	92.6 (3.5)
Magnesium	3/20/2023	mg/L	14.7 (0.5)	ND (0.5)	57.0 (0.5)	35.8 (0.5)	125 (2)	49.5 (0.5)	87.4 (0.5)
Magnesium	5/8/2023	mg/L							
Magnesium	9/26/2023	mg/L	3.70 (0.500)	ND (50.0)	59.8 (0.0100)	41.9 (0.500)	115 (2.00)	60.1 (0.500)	88.3 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Manganese	3/12/2018	mg/L	0.114 (n/a)	ND (1)	0.74 (n/a)	0.143 (n/a)	ND (0.5)	0.0269 (n/a)	0.0452 (n/a)
Manganese	9/4/2018	mg/L	0.158 (n/a)	ND (0.01)	1.05 (n/a)	1.42 (n/a)	ND (0.5)	0.0657 (n/a)	0.914 (n/a)
Manganese	3/18/2019	mg/L	0.117 (n/a)	ND (0.0025)	1.09 (n/a)	0.251 (n/a)	0.317 (n/a)	0.0269 (n/a)	0.0463 (n/a)
Manganese	8/27/2019	mg/L	0.189 (n/a)	ND (n/a)	1.75 (n/a)	1.44 (n/a)	0.237 (n/a)	0.0219 (n/a)	0.0504 (n/a)
Manganese	3/26/2020	mg/L	0.197 (n/a)	ND (0.01)	0.758 (n/a)	2.42 (n/a)	0.215 (n/a)	0.0348 (n/a)	0.0648 (n/a)
Manganese	9/1/2020	mg/L	0.0677 (n/a)	ND (0.004)	1.77 (n/a)	0.465 (n/a)	0.26 (n/a)	0.0902 (n/a)	0.0639 (n/a)
Manganese	3/18/2021	mg/L	0.18 (0.005)	ND (0.005)	1.87 (0.005)	-----	0.366 (0.005)	0.108 (0.005)	0.0494 (0.005)
Manganese	9/16/2021	mg/L	0.166 (0.005)	ND (0.005)	0.0911 (0.005)	0.216 (0.005)	0.299 (0.005)	0.20 (0.005)	0.0581 (0.005)
Manganese	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Manganese	3/15/2022	mg/L	0.173 (0.01)	ND (0.1)	2.00 (0.01)	0.228 (0.01)	0.333 (0.5)	0.121 (0.01)	0.0568 (0.04)
Manganese	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Manganese	9/23/2022	mg/L	0.159 (0.01)	ND (0.07)	1.64 (0.01)	0.328 (0.01)	0.368 (0.07)	0.147 (0.01)	0.0771 (0.07)
Manganese	3/20/2023	mg/L	0.0249 (0.01)	ND (0.01)	1.36 (0.01)	0.314 (0.01)	0.340 (0.01)	0.0912 (0.01)	0.0339 (0.01)
Manganese	5/8/2023	mg/L							
Manganese	9/26/2023	mg/L	ND (0.0100)	ND (1.00)	1.42 (0.0100)	0.349 (0.0100)	0.282 (0.0100)	0.258 (0.0100)	0.0577 (0.0400)
Molybdenum	3/12/2018	mg/L	ND (0.002)	0.233 (n/a)	ND (0.008)	ND (0.002)	ND (0.1)	ND (0.002)	ND (0.002)
Molybdenum	9/4/2018	mg/L	ND (0.002)	0.239 (n/a)	ND (0.004)	0.00245 (n/a)	ND (0.1)	0.00393 (n/a)	ND (0.002)
Molybdenum	3/18/2019	mg/L	ND (0.002)	0.199 (n/a)	0.00302 (n/a)	ND (0.002)	0.0695 (n/a)	ND (0.002)	ND (0.002)
Molybdenum	8/27/2019	mg/L	ND (0.0011)	0.124 (n/a)	ND (0.0044)	0.00241 (n/a)	0.568 (n/a)	0.00114 (n/a)	ND (0.0011)
Molybdenum	3/26/2020	mg/L	ND (0.002)	0.041 (n/a)	ND (0.002)	0.0106 (n/a)	0.077 (n/a)	0.00154 (n/a)	ND (0.002)
Molybdenum	9/1/2020	mg/L	0.00191 (n/a)	0.209 (n/a)	ND (0.0011)	0.0134 (n/a)	0.0875 (n/a)	ND (0.0011)	ND (0.0011)
Molybdenum	3/18/2021	mg/L	ND (0.02)	0.173 (0.02)	ND (0.02)	-----	0.0789 (0.02)	ND (0.02)	ND (0.02)
Molybdenum	9/16/2021	mg/L	ND (0.02)	0.167 (0.02)	ND (0.02)	0.0228 (0.02)	0.0761 (0.02)	ND (0.02)	ND (0.02)
Molybdenum	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Molybdenum	3/15/2022	mg/L	ND (0.002)	0.194 (0.02)	ND (0.002)	0.0143 (0.002)	0.103 (0.1)	ND (0.002)	ND (0.008)
Molybdenum	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Molybdenum	9/23/2022	mg/L	ND (0.002)	0.194 (0.14)	ND (0.002)	0.00652 (0.002)	0.112 (0.014)	ND (0.002)	ND (0.014)
Molybdenum	3/20/2023	mg/L	0.00329 (0.002)	0.107 (0.002)	ND (0.002)	0.00567 (0.002)	0.0789 (0.002)	ND (0.002)	ND (0.002)
Molybdenum	5/8/2023	mg/L							
Molybdenum	9/26/2023	mg/L	0.00389 (0.00200)	ND (0.200)	ND (0.00200)	0.00673 (0.00200)	0.0895 (0.00200)	ND (0.00200)	ND (0.00800)
Nickel	3/12/2018	mg/L	ND (0.005)	ND (0.5)	ND (0.02)	0.00555 (n/a)	ND (0.25)	ND (0.005)	ND (0.005)
Nickel	9/4/2018	mg/L	ND (0.005)	ND (0.5)	0.0154 (n/a)	0.0156 (n/a)	ND (0.25)	ND (0.005)	ND (0.005)
Nickel	3/18/2019	mg/L	0.00599 (n/a)	0.0203 (n/a)	0.0165 (n/a)	ND (0.005)	0.00555 (n/a)	ND (0.005)	ND (0.005)
Nickel	8/27/2019	mg/L	ND (0.0017)	0.0129 (n/a)	0.014 (n/a)	0.0159 (n/a)	0.00336 (n/a)	ND (0.0017)	0.00174 (n/a)
Nickel	3/26/2020	mg/L	ND (0.005)	0.0171 (n/a)	0.0107 (n/a)	0.0228 (n/a)	ND (0.02)	ND (0.005)	0.00209 (n/a)
Nickel	9/1/2020	mg/L	ND (0.0019)	0.0179 (n/a)	0.0118 (n/a)	0.00912 (n/a)	0.00568 (n/a)	0.00212 (n/a)	0.00217 (n/a)
Nickel	3/18/2021	mg/L	ND (0.005)	0.0151 (0.005)	0.0128 (0.005)	-----	0.007 (0.005)	ND (0.005)	ND (0.005)
Nickel	9/16/2021	mg/L	ND (0.005)	0.0135 (0.005)	0.009 (0.005)	ND (0.005)	0.0082 (0.005)	ND (0.005)	ND (0.005)
Nickel	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Nickel	3/15/2022	mg/L	ND (0.005)	ND (0.05)	0.00967 (0.005)	0.00567 (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Nickel	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Nickel	9/23/2022	mg/L	0.864 (0.005)	ND (0.35)	0.00877 (0.005)	0.00641 (0.005)	ND (0.0350)	ND (0.005)	ND (0.035)
Nickel	3/20/2023	mg/L	ND (0.005)	0.00853 (0.005)	0.00889 (0.005)	0.00571 (0.005)	0.00598 (0.005)	ND (0.005)	ND (0.05)
Nickel	5/8/2023	mg/L							
Nickel	9/26/2023	mg/L	ND (0.00500)	ND (0.500)	0.00836 (0.00500)	0.00528 (0.00500)	0.00569 (0.00500)	ND (0.00500)	ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Nitrate	3/12/2018	mg/L	ND (0.1)	ND (0.1)	0.168 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	9/4/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	0.383 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	3/18/2019	mg/L	1.6 (n/a)	ND (0.1)	0.288 (n/a)	0.111 (n/a)	ND (0.1)	0.103 (n/a)	ND (0.1)
Nitrate	8/27/2019	mg/L	0.05 (n/a)	ND (0.046)	1.10 (n/a)	ND (0.046)	ND (0.92)	0.046 (n/a)	ND (0.046)
Nitrate	3/26/2020	mg/L	2.15 (n/a)	ND (0.1)	1.34 (n/a)	0.862 (n/a)	0.206 (n/a)	0.0598 (n/a)	ND (0.049)
Nitrate	9/1/2020	mg/L	0.0627 (n/a)	ND (0.245)	ND (0.049)	0.256 (n/a)	ND (0.049)	0.0918 (n/a)	ND (0.049)
Nitrate	3/18/2021	mg/L	0.35 (0.1)	ND (0.1)	ND (0.1)	-----	0.35 (0.1)	ND (0.1)	ND (0.1)
Nitrate	9/16/2021	mg/L	0.13 (0.1)	ND (0.1)	ND (0.1)	0.29 (0.1)	0.19 (0.1)	ND (0.1)	ND (0.1)
Nitrate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrate	3/15/2022	mg/L	ND (0.1)	ND (10)	0.126 (0.1)	0.149 (0.1)	0.678 (0.1)	ND (0.1)	ND (0.1)
Nitrate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrate	9/23/2022	mg/L	3.77 (0.1)	ND (0.1)	0.281 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrate	3/20/2023	mg/L	3.86 (0.1)	ND (0.1)	ND (0.1)	0.144 (0.1)	1.62 (0.1)	ND (0.1)	ND (0.1)
Nitrate	5/8/2023	mg/L							
Nitrate	9/26/2023	mg/L	5.62 (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Nitrite	3/26/2020	mg/L	ND (0.195)	ND (0.039)	ND (0.195)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)
Nitrite	9/1/2020	mg/L	ND (0.039)	3.76 (n/a)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)	ND (0.039)
Nitrite	3/18/2021	mg/L	ND (0.1)	-----	-----	-----		ND (0.1)	ND (0.1)
Nitrite	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrite	3/15/2022	mg/L	ND (0.1)	ND (10)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Nitrite	9/23/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Nitrite	5/8/2023	mg/L							
Nitrite	9/26/2023	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)
Phosphorus	3/12/2018	mg/L	ND (0.1)	0.184 (n/a)	0.109 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	9/4/2018	mg/L	ND (0.1)	0.148 (n/a)	ND (0.1)	0.343 (n/a)	ND (0.1)	ND (0.1)	0.217 (n/a)
Phosphorus	3/18/2019	mg/L	ND (0.1)	0.186 (n/a)	ND (0.1)	0.165 (n/a)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	8/27/2019	mg/L	0.0628 (n/a)	0.196 (n/a)	0.173 (n/a)	0.39 (n/a)	0.0753 (n/a)	ND (0.041)	0.0577 (n/a)
Phosphorus	3/26/2020	mg/L	0.053 (n/a)	0.208 (n/a)	0.151 (n/a)	2.56 (n/a)	ND (0.1)	0.0967 (n/a)	0.0521 (n/a)
Phosphorus	9/1/2020	mg/L	0.0419 (n/a)	0.199 (n/a)	0.0713 (n/a)	0.257 (n/a)	ND (0.039)	0.0715 (n/a)	0.0414 (n/a)
Phosphorus	3/18/2021	mg/L	ND (0.1)	0.14 (0.1)	ND (0.1)	-----	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	9/16/2021	mg/L	ND (0.1)	0.16 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Phosphorus	3/15/2022	mg/L	ND (0.1)	0.223 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Phosphorus	9/23/2022	mg/L	ND (0.1)	0.227 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	3/20/2023	mg/L	ND (0.1)	0.247 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)
Phosphorus	5/8/2023	mg/L							
Phosphorus	9/26/2023	mg/L	ND (0.100)	0.197 (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)
Potassium	3/12/2018	mg/L	3.68 (n/a)	5320 (n/a)	9.34 (n/a)	6.39 (n/a)	1700 (n/a)	8.88 (n/a)	25.2 (n/a)
Potassium	9/4/2018	mg/L	4.01 (n/a)	5910 (n/a)	10.2 (n/a)	8.34 (n/a)	1960 (n/a)	10.1 (n/a)	6.44 (n/a)
Potassium	3/18/2019	mg/L	5.70 (n/a)	4420 (n/a)	13.0 (n/a)	6.28 (n/a)	1510 (n/a)	9.53 (n/a)	41.7 (n/a)
Potassium	8/27/2019	mg/L	4.54 (n/a)	5000 (n/a)	10.3 (n/a)	7.04 (n/a)	1560 (n/a)	8.41 (n/a)	50.7 (n/a)
Potassium	3/26/2020	mg/L	4.47 (n/a)	5720 (n/a)	10.4 (n/a)	7.10 (n/a)	1450 (n/a)	9.89 (n/a)	72.9 (n/a)
Potassium	9/1/2020	mg/L	14.1 (n/a)	5280 (n/a)	12.4 (n/a)	6.30 (n/a)	1510 (n/a)	9.53 (n/a)	76.0 (n/a)
Potassium	3/18/2021	mg/L	16.7 (0.5)	5220 (25)	11.5 (0.5)	-----	1440 (25)	10.2 (0.5)	95.5 (0.5)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Potassium	9/16/2021	mg/L	6.23 (0.5)	4800 (5)	170 (0.5)	6.03 (0.5)	1580 (1)	9.62 (0.5)	109 (0.5)
Potassium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Potassium	3/15/2022	mg/L	4.77 (0.5)	4670 (50)	9.79 (0.5)	6.90 (0.58)	1920 (25)	10.2 (0.5)	130 (2)
Potassium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Potassium	9/23/2022	mg/L	5.19 (0.5)	4570 (50)	9.82 (0.5)	6.06 (0.5)	1850 (50)	9.43 (0.5)	162 (3.5)
Potassium	3/20/2023	mg/L	12.3 (0.5)	4040 (50)	13.7 (0.5)	5.71 (0.5)	1870 (50)	9.55 (0.5)	158 (5)
Potassium	5/8/2023	mg/L							
Potassium	9/26/2023	mg/L	16.7 (0.500)	5470 (50.0)	9.40 (0.500)	12.3 (0.500)	1670 (14.0)	10.4 (0.500)	178 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Selenium	3/12/2018	mg/L	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Selenium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Selenium	3/18/2019	mg/L	ND (0.005)	0.00214 (n/a)	ND (0.005)	ND (0.005)	ND (0.001)	ND (0.005)	ND (0.005)
Selenium	8/27/2019	mg/L	ND (0.001)	0.00189 (n/a)	ND (0.004)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Selenium	3/26/2020	mg/L	ND (0.005)	0.0036 (n/a)	ND (0.005)	ND (0.02)	ND (0.02)	ND (0.005)	ND (0.005)
Selenium	9/1/2020	mg/L	ND (0.001)	0.00426 (n/a)	ND (0.001)	0.00119 (n/a)	0.0102 (n/a)	ND (0.001)	ND (0.001)
Selenium	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	-----	ND (0.015)	ND (0.015)	ND (0.015)
Selenium	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)
Selenium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Selenium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Selenium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Selenium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.035)
Selenium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Selenium	5/8/2023	mg/L							
Selenium	9/26/2023	mg/L	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)
Silver	3/12/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Silver	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Silver	3/18/2019	mg/L	ND (0.001)	ND (0.00037)	ND (0.001)	ND (0.001)	ND (0.00037)	ND (0.001)	ND (0.001)
Silver	8/27/2019	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)
Silver	3/26/2020	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Silver	9/1/2020	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.00037)	ND (0.0007)
Silver	3/18/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	-----	ND (0.007)	ND (0.007)	ND (0.007)
Silver	9/16/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)
Silver	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Silver	3/15/2022	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.004)
Silver	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Silver	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.007)
Silver	3/20/2023	mg/L	ND (0.001)	ND (0.004)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Silver	5/8/2023	mg/L							
Silver	9/26/2023	mg/L	ND (0.00100)	ND (0.100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00400)
Sodium	3/12/2018	mg/L	16.0 (n/a)	443 (n/a)	47.7 (n/a)	45.4 (n/a)	378 (n/a)	36.7 (n/a)	41.2 (n/a)
Sodium	9/4/2018	mg/L	16.7 (n/a)	468 (n/a)	50.2 (n/a)	51.1 (n/a)	434 (n/a)	43.7 (n/a)	14.1 (n/a)
Sodium	3/18/2019	mg/L	19.6 (n/a)	445 (n/a)	53.1 (n/a)	61.0 (n/a)	359 (n/a)	38.2 (n/a)	46.1 (n/a)
Sodium	8/27/2019	mg/L	18.8 (n/a)	389 (n/a)	53.7 (n/a)	34.1 (n/a)	403 (n/a)	32.5 (n/a)	51.8 (n/a)
Sodium	3/26/2020	mg/L	19.5 (n/a)	415 (n/a)	54.2 (n/a)	250 (n/a)	373 (n/a)	35.3 (n/a)	57.0 (n/a)
Sodium	9/1/2020	mg/L	26.9 (n/a)	399 (n/a)	58.1 (n/a)	144 (n/a)	465 (n/a)	37.2 (n/a)	58.5 (n/a)
Sodium	3/18/2021	mg/L	19.6 (0.5)	320 (0.5)	51.7 (0.5)	-----	324 (0.5)	40.2 (0.5)	61.8 (0.5)
Sodium	9/16/2021	mg/L	18.9 (0.5)	353 (0.5)	51.2 (0.5)	584 (1)	325 (0.5)	37.0 (0.5)	66.0 (0.5)
Sodium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Sodium	3/15/2022	mg/L	19.1 (1)	384 (10)	55.9 (1)	384 (1)	460 (5)	41.5 (1)	70.3 (4)
Sodium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Sodium	9/23/2022	mg/L	18.0 (1)	414 (7)	55.0 (1)	166 (1)	451 (7)	36.8 (1)	81.5 (7)
Sodium	3/20/2023	mg/L	20.1 (1)	261 (1)	45.8 (1)	103 (1)	308 (1)	32.5 (1)	75.3 (1)
Sodium	5/8/2023	mg/L							
Sodium	9/26/2023	mg/L	25.6 (1.00)	447 (100)	53.7 (1.00)	83.6 (1.00)	378 (1.00)	41.7 (1.00)	81.5 (4.00)
Sulfate	3/12/2018	mg/L	25.8 (n/a)	3620 (n/a)	272 (n/a)	46.9 (n/a)	3140 (n/a)	72.8 (n/a)	277 (n/a)
Sulfate	9/4/2018	mg/L	21.8 (n/a)	3040 (n/a)	266 (n/a)	47.1 (n/a)	2940 (n/a)	84.0 (n/a)	278 (n/a)
Sulfate	3/18/2019	mg/L	56.2 (n/a)	3300 (n/a)	283 (n/a)	48.3 (n/a)	3050 (n/a)	76.4 (n/a)	320 (n/a)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Sulfate	8/27/2019	mg/L	24.1 (n/a)	3460 (n/a)	287 (n/a)	61.8 (n/a)	2850 (n/a)	67.1 (n/a)	362 (n/a)
Sulfate	3/26/2020	mg/L	76.6 (n/a)	3490 (n/a)	284 (n/a)	157 (n/a)	3030 (n/a)	87.0 (n/a)	426 (n/a)
Sulfate	9/1/2020	mg/L	98.0 (n/a)	3150 (n/a)	257 (n/a)	86.3 (n/a)	2800 (n/a)	81.4 (n/a)	417 (n/a)
Sulfate	3/18/2021	mg/L	32.3 (5)	3480 (200)	270 (20)	-----	3430 (500)	126 (20)	529 (50)
Sulfate	9/16/2021	mg/L	32.0 (5)	2740 (200)	846 (100)	64.9 (20)	2450 (500)	133 (20)	506 (50)
Sulfate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Sulfate	3/15/2022	mg/L	25.7 (1)	2650 (100)	220 (20)	76.1 (1)	3170 (100)	196 (10)	570 (10)
Sulfate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Sulfate	9/23/2022	mg/L	116 (5)	2520 (50)	199 (20)	52.9 (1)	2770 (50)	128 (5)	2010 (50)
Sulfate	3/20/2023	mg/L	108 (10)	2540 (50)	397 (10)	61.3 (1)	3010 (100)	141 (10)	593 (10)
Sulfate	5/8/2023	mg/L							
Sulfate	9/26/2023	mg/L	147 (5.00)	2600 (200)	192 (50.0)	55.8 (1.00)	2590 (200)	135 (50.0)	630 (100)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Thallium	3/12/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.004)	ND (0.001)	ND (0.05)	ND (0.001)	ND (0.001)
Thallium	9/4/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)
Thallium	3/18/2019	mg/L	ND (0.001)	ND (0.0027)	ND (0.001)	ND (0.001)	ND (0.00027)	ND (0.001)	ND (0.001)
Thallium	8/27/2019	mg/L	ND (0.00027)	ND (0.0027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)	ND (0.00027)
Thallium	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.004)	ND (0.004)	ND (0.001)	ND (0.001)
Thallium	9/1/2020	mg/L	ND (0.00026)	ND (0.0052)	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00026)	ND (0.00026)
Thallium	3/18/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	-----	ND (0.02)	ND (0.02)	ND (0.02)
Thallium	9/16/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Thallium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Thallium	3/15/2022	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.004)
Thallium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Thallium	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.007)
Thallium	3/20/2023	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.005)	ND (0.001)
Thallium	5/8/2023	mg/L							
Thallium	9/26/2023	mg/L	ND (0.00100)	ND (0.100)	0.00840 (0.00100)	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00400)
Total Dissolved Solids	3/12/2018	mg/L	414 (n/a)	12400 (n/a)	868 (n/a)	386 (n/a)	6040 (n/a)	442 (n/a)	736 (n/a)
Total Dissolved Solids	9/4/2018	mg/L	374 (n/a)	10600 (n/a)	868 (n/a)	458 (n/a)	6220 (n/a)	474 (n/a)	844 (n/a)
Total Dissolved Solids	3/18/2019	mg/L	382 (n/a)	11100 (n/a)	944 (n/a)	528 (n/a)	6240 (n/a)	438 (n/a)	896 (n/a)
Total Dissolved Solids	8/27/2019	mg/L	388 (n/a)	11500 (n/a)	960 (n/a)	524 (n/a)	5840 (n/a)	436 (n/a)	948 (n/a)
Total Dissolved Solids	3/26/2020	mg/L	332 (n/a)	12800 (n/a)	940 (n/a)	1020 (n/a)	6260 (n/a)	422 (n/a)	1040 (n/a)
Total Dissolved Solids	9/1/2020	mg/L	352 (n/a)	12100 (n/a)	944 (n/a)	594 (n/a)	6130 (n/a)	446 (n/a)	1010 (n/a)
Total Dissolved Solids	3/18/2021	mg/L	402 (10)	12300 (333)	921 (13.3)	-----	6730 (167)	577 (10)	1200 (20)
Total Dissolved Solids	9/16/2021	mg/L	394 (10)	11200 (333)	2460 (40)	1680 (40)	6490 (143)	568 (10)	1180 (13.3)
Total Dissolved Solids	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	3/15/2022	mg/L	312 (50)	8400 (2500)	746 (50)	1090 (250)	5620 (500)	514 (50)	1230 (50)
Total Dissolved Solids	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	9/23/2022	mg/L	234 (50)	9830 (250)	794 (50)	806 (50)	6330 (250)	556 (50)	1370 (50)
Total Dissolved Solids	3/20/2023	mg/L	308 (50)	9440 (250)	720 (50)	640 (50)	6290 (250)	502 (50)	1380 (50)
Total Dissolved Solids	5/8/2023	mg/L							
Total Dissolved Solids	9/26/2023	mg/L	338 (50.0)	8980 (250)	762 (762)	548 (50.0)	5980 (250)	540 (50.0)	1420 (50.0)
Vanadium	3/12/2018	mg/L	ND (0.005)	ND (0.5)	ND (0.02)	ND (0.005)	ND (0.25)	ND (0.005)	ND (0.005)
Vanadium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.01)	0.0109 (n/a)	ND (0.005)	ND (0.005)	ND (0.005)
Vanadium	3/18/2019	mg/L	ND (0.005)	0.00192 (n/a)	ND (0.005)	ND (0.005)	ND (0.0041)	ND (0.005)	ND (0.005)
Vanadium	8/27/2019	mg/L	ND (0.00082)	0.00158 (n/a)	0.00432 (n/a)	0.00685 (n/a)	0.00151 (n/a)	ND (0.00082)	0.00105 (n/a)
Vanadium	3/26/2020	mg/L	ND (0.005)	0.00307 (n/a)	0.0013 (n/a)	0.0304 (n/a)	ND (0.02)	ND (0.005)	ND (0.005)
Vanadium	9/1/2020	mg/L	0.0017 (n/a)	0.00266 (n/a)	0.000881 (n/a)	0.0077 (n/a)	ND (0.00425)	ND (0.00085)	ND (0.00085)
Vanadium	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	ND (0.01)	ND (0.01)	ND (0.01)
Vanadium	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Vanadium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Vanadium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.005)	ND (0.02)
Vanadium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Vanadium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.035)
Vanadium	3/20/2023	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vanadium	5/8/2023	mg/L							
Vanadium	9/26/2023	mg/L	ND (0.00500)	ND (0.500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-7 (DwnGrd)	MW-11 (DwnGrd)	MW-12 (DwnGrd)	MW-13 (UpGrd)	MW-14 (DwnGrd)	MW-15 (UpGrd)	MW-16 (DwnGrd)
Zinc	3/12/2018	mg/L	ND (0.02)	ND (2)	ND (0.08)	ND (0.02)	ND (1)	ND (0.02)	0.0213 (n/a)
Zinc	9/4/2018	mg/L	ND (0.02)	ND (0.02)	ND (0.04)	0.0783 (n/a)	ND (0.02)	ND (0.02)	0.064 (n/a)
Zinc	3/18/2019	mg/L	0.0208 (n/a)	ND (0.1)	0.0453 (n/a)	ND (0.02)	ND (0.01)	ND (0.02)	ND (0.02)
Zinc	8/27/2019	mg/L	0.0167 (n/a)	ND (n/a)	0.0146 (n/a)	0.0436 (n/a)	ND (0.01)	ND (0.01)	ND (0.01)
Zinc	3/26/2020	mg/L	ND (0.02)	ND (0.02)	0.0222 (n/a)	0.307 (n/a)	ND (0.08)	ND (0.02)	ND (0.02)
Zinc	9/1/2020	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	0.0408 (n/a)	ND (0.01)	ND (0.01)	ND (0.01)
Zinc	3/18/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	-----	ND (0.05)	ND (0.05)	ND (0.05)
Zinc	9/16/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Zinc	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----
Zinc	3/15/2022	mg/L	ND (0.02)	ND (0.2)	ND (0.02)	ND (0.002)	ND (0.1)	ND (0.02)	ND (0.08)
Zinc	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----
Zinc	9/23/2022	mg/L	ND (0.02)	ND (0.14)	ND (0.02)	ND (0.02)	ND (0.140)	ND (0.02)	ND (0.14)
Zinc	3/20/2023	mg/L	ND (0.02)	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Zinc	5/8/2023	mg/L							
Zinc	9/26/2023	mg/L	ND (0.0200)	ND (2.00)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0800)

Notes:
mg/L - milligrams per Liter
ug/L - micrograms per Liter
umhos/cm - microhos per centimeter
n/a - not applicable
SU - standard unit
ND = non detect
(10) - detection limit

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
pH	3/12/2018	SU	7.7	10.4	8.1	-----	-----	-----		-----
pH	9/4/2018	SU	7.7	11.1	7.3	-----	-----	-----		-----
pH	3/18/2019	SU	7.55	10.61	7.3	-----	-----	-----		-----
pH	8/27/2019	SU	7.9	12.4	7.6	-----	-----	-----		-----
pH	3/26/2020	SU	7.24	10.46	-----	-----	-----	-----		-----
pH	9/1/2020	SU	7.41	11.13	7.38	-----	-----	-----		-----
pH	3/18/2021	SU	9.38	12.5	9.08	-----	-----	-----		5.96
pH	9/16/2021	SU	7.4	10.9	7.3	7.4	7.5	-----		7.6
pH	10/8/2021	SU	-----	-----	-----	-----	-----	7.3		-----
pH	3/15/2022	SU	7.27	10.95	6.92	7.22	7.02	-----		7.87
pH	4/19/2022	SU	-----	-----	-----	-----	-----	7.82		-----
pH	9/23/2022	SU	7.63	11.17	7.74	7.16	7.16	-----		7.85
pH	3/20/2023	SU	6.72	10.76	6.78	7.32	7.18	-----		-----
pH	5/8/2023	SU	----	----	----	----	----	7.67	-----	-----
pH	9/26/2023	SU	7.3	10.90	6.82	7.08	6.92			7.96
Specific Conductivity	3/12/2018	umhos/cm	630 (n/a)	14200 (n/a)	831 (n/a)	-----	-----	-----		-----
Specific Conductivity	9/4/2018	umhos/cm	632 (n/a)	14700 (n/a)	1066 (n/a)	-----	-----	-----		-----
Specific Conductivity	3/18/2019	umhos/cm	622 (n/a)	15070 (n/a)	7930 (n/a)	-----	-----	-----		-----
Specific Conductivity	8/27/2019	umhos/cm	541 (n/a)	11190 (n/a)	740 (n/a)	-----	-----	-----		-----
Specific Conductivity	3/26/2020	umhos/cm	611 (n/a)	15895 (n/a)	-----	-----	-----	-----		-----
Specific Conductivity	9/1/2020	umhos/cm	613 (n/a)	11842 (n/a)	788 (n/a)	-----	-----	-----		-----
Specific Conductivity	3/18/2021	umhos/cm	360 (n/a)	10400 (1)	720 (1)	-----	-----	-----		1370 (1)
Specific Conductivity	9/16/2021	umhos/cm	586 (n/a)	16630 (n/a)	1037 (n/a)	6480 (n/a)	581 (n/a)	-----		1995 (n/a)
Specific Conductivity	10/8/2021	umhos/cm	-----	-----	-----	-----	-----	-----		-----
Specific Conductivity	3/15/2022	umhos/cm	586 (N/A)	15130 (N/A)	1037 (N/A)	655 (N/A)	575 (N/A)	-----		1551 (N/A)
Specific Conductivity	4/19/2022	umhos/cm	-----	-----	-----	-----	-----	0.0315		-----
Specific Conductivity	9/23/2022	umhos/cm	915 (N/A)	23267 (N/A)	1447 (N/A)	1027 (N/A)	1194 (N/A)	-----		2904 (N/A)
Specific Conductivity	3/20/2023	umhos/cm	671 (N/A)	15820 (N/A)	890 (N/A)	787 (N/A)	1243 (N/A)	-----		-----
Specific Conductivity	5/8/2023	umhos/cm	-----	-----	-----	-----	-----	26950	-----	-----
Specific Conductivity	9/26/2023	umhos/cm	671	15380	753	695	714	-----		2699
Alkalinity, Total	9/1/2020	mg/L	319 (n/a)	1400 (n/a)	405 (n/a)	-----	-----	-----		221 (n/a)
Alkalinity, Total	9/16/2021	mg/L	293 (20)	1520 (100)	388 (20)	345 (20)	375 (20)	-----		3390 (600)
Alkalinity, Total	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----		-----
Alkalinity, Total	3/15/2022	mg/L	304 (10)	1770 (10)	392 (10)	343 (10)	382 (10)	-----		186 (10)
Alkalinity, Total	4/19/2022	mg/L	-----	-----	-----	-----	-----	1440 (10)		-----
Alkalinity, Total	9/23/2022	mg/L	302 (10)	1680 (25)	409 (10)	390 (10)	390 (10)	-----		202 (10)
Alkalinity, Total	3/20/2023	mg/L	323 (5)	1720 (5)	412 (5)	365 (5)	396 (5)	-----		-----
Alkalinity, Total	5/8/2023	mg/L	----	----	----	----	----	435 (5)	5030 (1750)	-----
Alkalinity, Total	9/26/2023	mg/L	312 (5.00)	1590 (5.00)	396 (5.00)	360 (5.00)	380 (5.00)	-----		205 (5.00)
Alkalinity, Bicarbonate	9/16/2021	mg/L	293 (20)	ND (100)	388 (20)	345 (20)	375 (20)	-----		ND (600)
Alkalinity, Bicarbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	440 (40)		-----
Alkalinity, Bicarbonate	3/15/2022	mg/L	304 (10)	49.0 (10)	392 (10)	343 (10)	382 (10)	-----		186 (10)
Alkalinity, Bicarbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	1440 (10)		-----
Alkalinity, Bicarbonate	9/23/2022	mg/L	302 (10)	ND (25)	409 (10)	390 (10)	390 (10)	-----		202 (10)
Alkalinity, Bicarbonate	3/20/2023	mg/L	323 (5)	98.5 (5)	412 (5)	365 (5)	396 (5)	-----		-----
Alkalinity, Bicarbonate	5/8/2023	mg/L	-----	-----	-----	-----	-----	435 (5)	5030 (1750)	-----
Alkalinity, Bicarbonate	9/26/2023	mg/L	312 (5.00)	85.7 (5.00)	396 (5.00)	360 (5.00)	380 (5.00)	-----		205 (5.00)
Alkalinity, Carbonate	9/16/2021	mg/L	ND (20)	1470 (100)	ND (20)	ND (20)	ND (20)	-----		ND (600)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Alkalinity, Carbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (40)		-----
Alkalinity, Carbonate	3/15/2022	mg/L	ND (10)	1720 (10)	ND (10)	ND (10)	ND (10)	-----		ND (10)
Alkalinity, Carbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	1440 (10)		-----
Alkalinity, Carbonate	9/23/2022	mg/L	ND (10)	1680 (25)	ND (10)	ND (10)	ND (10)	-----		ND (10)
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	1630 (5)	ND (5)	ND (0.5)	ND (5)	-----		-----
Alkalinity, Carbonate	3/20/2023	mg/L	ND (5)	1630 (5)	ND (5)	ND (0.5)	ND (5)	-----		-----
Alkalinity, Carbonate	5/8/2023	mg/L						ND (5)	ND (1750)	
Alkalinity, Carbonate	9/26/2023	mg/L	ND (5.00)	1510 (5.00)	ND (5.00)	ND (5.00)	ND (5.00)	-----		ND (5.00)
Bromate	3/18/2021	ug/L	ND (500)	ND (500)	ND (500)	-----	-----	-----		ND (500)
Bromate	9/16/2021	ug/L	ND (5)	ND (100)	ND (5)	ND (10)	ND (5)	-----		ND (10)
Bromate	10/8/2021	ug/L	-----	-----	-----	-----	-----	ND (100)		-----
Bromate	3/15/2022	ug/L	6.64 (5)	ND (50)	11.7 (5)	ND (50)	ND (5)	-----		ND (5)
Bromate	4/19/2022	mg/L	-----	-----	-----	-----	-----	ND (125)		-----
Bromate	9/23/2022	ug/L	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	-----		ND (5)
Bromate	3/20/2023	ug/L	36.8 (5)	ND (125)	ND (5)	49.9 (5)	ND (5)	-----		-----
Bromate	5/8/2023	ug/L						ND (250)	ND (3500)	
Bromate	9/26/2023	ug/L	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	ND (1.00)	-----		ND (1.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Aluminium	3/12/2018	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	-----	-----	-----		-----
Aluminium	9/4/2018	mg/L	2.41 (n/a)	ND (0.05)	ND (0.05)	-----	-----	-----		0.578 (n/a)
Aluminium	3/18/2019	mg/L	ND (0.05)	ND (0.027)	ND (0.05)	-----	-----	-----		ND (0.05)
Aluminium	8/27/2019	mg/L	0.0801 (n/a)	0.0367 (n/a)	0.0857 (n/a)	-----	-----	-----		0.0388 (n/a)
Aluminium	3/26/2020	mg/L	ND (0.05)	ND (0.5)	0.0362 (n/a)	-----	-----	-----		0.0335 (n/a)
Aluminium	9/1/2020	mg/L	0.0335 (n/a)	0.0272 (n/a)	0.0158 (n/a)	-----	-----	-----		0.0366 (n/a)
Aluminium	3/18/2021	mg/L	0.167 (0.075)	ND (0.075)	0.0958 (0.075)	-----	-----	-----		0.207 (0.075)
Aluminium	9/16/2021	mg/L	0.374 (0.075)	ND (0.075)	0.085 (0.075)	2.48 (0.075)	0.695 (0.075)	-----		0.42 (0.075)
Aluminium	10/8/2021	mg/L	-----	-----	-----	-----	-----	76.4 (3.75)		-----
Aluminium	3/15/2022	mg/L	ND (0.05)	ND (0.5)	ND (0.05)	0.406 (0.05)	ND (0.05)	-----		ND (0.2)
Aluminium	4/19/2022	mg/L	-----	-----	-----	-----	-----	16.1 (0.05)		-----
Aluminium	9/23/2022	mg/L	ND (0.05)	ND (0.35)	ND (0.05)	0.132 (0.05)	ND (0.05)	-----		ND (0.35)
Aluminium	3/20/2023	mg/L	ND (0.05)	ND (0.5)	ND (0.05)	0.0527 (0.05)	ND (0.05)	-----		-----
Aluminium	5/8/2023	mg/L						15.9 (0.05)	1710 (70)	
Aluminium	9/26/2023	mg/L	0.162 (0.0500)	ND (0.0500)	ND (0.0500)	1.39 (0.0500)	0.389 (0.0500)	-----		ND (0.200)
Antimony	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----
Antimony	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)
Antimony	3/18/2019	mg/L	ND (0.001)	0.000809 (n/a)	ND (0.001)	-----	-----	-----		ND (0.001)
Antimony	8/27/2019	mg/L	ND (0.00053)	ND (0.00053)	0.000833 (n/a)	-----	-----	-----		ND (0.00053)
Antimony	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	-----	-----	-----		0.000696 (n/a)
Antimony	9/1/2020	mg/L	ND (0.00051)	0.00101 (n/a)	ND (0.00051)	-----	-----	-----		ND (0.0005)
Antimony	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	-----	-----	-----		ND (0.015)
Antimony	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	-----		ND (0.015)
Antimony	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.75)		-----
Antimony	3/15/2022	mg/L	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.02)	-----		ND (0.008)
Antimony	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.00458 (0.002)		-----
Antimony	9/23/2022	mg/L	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.014)
Antimony	3/20/2023	mg/L	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		-----
Antimony	5/8/2023	mg/L						0.00225 (0.002)	ND (2.8)	
Antimony	9/26/2023	mg/L	ND (0.002)	ND (0.008)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.008)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Arsenic	3/12/2018	mg/L	ND (0.002)	0.0034 (n/a)	ND (0.002)	-----	-----	-----		-----
Arsenic	9/4/2018	mg/L	0.00223 (n/a)	ND (0.2)	ND (0.002)	-----	-----	-----		ND (0.002)
Arsenic	3/18/2019	mg/L	ND (0.002)	0.00551 (n/a)	ND (0.002)	-----	-----	-----		ND (0.002)
Arsenic	8/27/2019	mg/L	ND (0.00075)	0.00422 (n/a)	0.00104 (n/a)	-----	-----	-----		ND (0.00075)
Arsenic	3/26/2020	mg/L	ND (0.002)	0.0128 (n/a)	ND (0.002)	-----	-----	-----		ND (0.002)
Arsenic	9/1/2020	mg/L	ND (0.00088)	0.0242 (n/a)	ND (0.00088)	-----	-----	-----		ND (0.00088)
Arsenic	3/18/2021	mg/L	ND (0.01)	0.0402 (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)
Arsenic	9/16/2021	mg/L	ND (0.01)	0.0332 (0.01)	ND (0.01)	0.0113 (0.01)	ND (0.01)	-----		ND (0.01)
Arsenic	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.746 (0.5)		-----
Arsenic	3/15/2022	mg/L	ND (0.002)	ND (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.008)
Arsenic	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0411 (0.002)		-----
Arsenic	9/23/2022	mg/L	ND (0.002)	ND (0.014)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.014)
Arsenic	3/20/2023	mg/L	ND (0.002)	ND (0.02)	ND (0.005)	ND (0.002)	ND (0.002)	-----		-----
Arsenic	5/8/2023	mg/L						0.0114 (0.002)	ND (2.8)	
Arsenic	9/26/2023	mg/L	ND (0.00200)	0.0113 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	-----		ND (0.00800)
Barium	3/12/2018	mg/L	0.0675 (n/a)	0.00938 (n/a)	0.0959 (n/a)	-----	-----	-----		-----
Barium	9/4/2018	mg/L	0.092 (n/a)	ND (0.2)	0.114 (n/a)	-----	-----	-----		0.0442 (n/a)
Barium	3/18/2019	mg/L	0.0682 (n/a)	0.00886 (n/a)	0.115 (n/a)	-----	-----	-----		0.0215 (n/a)
Barium	8/27/2019	mg/L	0.0702 (n/a)	0.00853 (n/a)	0.108 (n/a)	-----	-----	-----		0.0359 (n/a)
Barium	3/26/2020	mg/L	0.071 (n/a)	0.0156 (n/a)	0.103 (n/a)	-----	-----	-----		0.0276 (n/a)
Barium	9/1/2020	mg/L	0.0687 (n/a)	0.0137 (n/a)	0.109 (n/a)	-----	-----	-----		0.0463 (n/a)
Barium	3/18/2021	mg/L	0.0721 (0.005)	0.0134 (0.005)	0.116 (0.005)	-----	-----	-----		0.0294 (0.005)
Barium	9/16/2021	mg/L	0.0659 (0.005)	0.0114 (0.005)	0.108 (0.005)	0.0769 (0.005)	0.141 (0.005)	-----		0.0443 (0.005)
Barium	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.284 (0.25)		-----
Barium	3/15/2022	mg/L	0.0734 (0.002)	ND (0.02)	0.112 (0.002)	0.0728 (0.002)	0.138 (0.002)	-----		0.0235 (0.008)
Barium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.268 (0.002)		-----
Barium	9/23/2022	mg/L	0.0746 (0.002)	ND (0.014)	0.121 (0.002)	0.0626 (0.002)	0.119 (0.002)	-----		0.038
Barium	3/20/2023	mg/L	0.0729 (0.002)	ND (0.02)	0.111 (0.002)	0.0580 (0.002)	0.134 (0.002)	-----		-----
Barium	5/8/2023	mg/L						0.220 (0.002)	17.2 (2.8)	
Barium	9/26/2023	mg/L	0.0655 (0.00200)	0.0107 (0.00200)	0.116 (0.00200)	0.0782 (0.00200)	0.141 (0.00200)	-----		0.0391 (0.00800)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Beryllium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----
Beryllium	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)
Beryllium	3/18/2019	mg/L	ND (0.001)	ND (0.00027)	ND (0.001)	-----	-----	-----		ND (0.001)
Beryllium	8/27/2019	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	-----	-----	-----		ND (0.00027)
Beryllium	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	-----	-----	-----		ND (0.001)
Beryllium	9/1/2020	mg/L	ND (0.00027)	ND (0.00027)	ND (0.00027)	-----	-----	-----		ND (0.00027)
Beryllium	3/18/2021	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)
Beryllium	9/16/2021	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.001)
Beryllium	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.0012 (n/a)		-----
Beryllium	3/15/2022	mg/L	ND (0.001)	ND (0.02)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.004)
Beryllium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0012 (0.001)		-----
Beryllium	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.007)
Beryllium	3/20/2023	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		-----
Beryllium	5/8/2023	mg/L						ND (0.001)	ND (1.4)	
Beryllium	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00400)
Boron	3/12/2018	mg/L	0.29 (n/a)	0.322 (n/a)	0.205 (n/a)	-----	-----	-----		-----
Boron	9/4/2018	mg/L	0.453 (n/a)	ND (20)	0.239 (n/a)	-----	-----	-----		0.441 (n/a)
Boron	3/18/2019	mg/L	0.272 (n/a)	0.295 (n/a)	0.205 (n/a)	-----	-----	-----		0.224 (n/a)
Boron	8/27/2019	mg/L	0.28 (n/a)	0.298 (n/a)	0.238 (n/a)	-----	-----	-----		0.345 (n/a)
Boron	3/26/2020	mg/L	0.273 (n/a)	ND (2)	0.247 (n/a)	-----	-----	-----		0.244 (n/a)
Boron	9/1/2020	mg/L	0.244 (n/a)	ND (0.8)	0.247 (n/a)	-----	-----	-----		0.384 (n/a)
Boron	3/18/2021	mg/L	0.249 (0.1)	0.467 (0.1)	0.245 (0.1)	-----	-----	-----		0.266 (0.1)
Boron	9/16/2021	mg/L	0.216 (0.1)	0.403 (0.1)	0.226 (0.1)	0.373 (0.1)	0.217 (0.1)	-----		0.336 (0.1)
Boron	10/8/2021	mg/L	-----	-----	-----	-----	-----	13.3 (n/a)		-----
Boron	3/15/2022	mg/L	0.241 (0.1)	ND (1)	0.234 (0.1)	0.384 (0.1)	0.219 (0.1)	-----		ND (0.4)
Boron	4/19/2022	mg/L	-----	-----	-----	-----	-----	12.6 (2)		-----
Boron	9/23/2022	mg/L	0.236 (0.1)	ND (0.7)	0.273 (0.1)	0.394 (0.1)	0.231 (0.1)	-----		ND (0.7)
Boron	3/20/2023	mg/L	0.231 (0.1)	ND (1)	0.190 (0.1)	0.301 (0.1)	0.205 (0.1)	-----		-----
Boron	5/8/2023	mg/L						10.3 (10)	ND (140)	
Boron	9/26/2023	mg/L	0.260 (0.100)	ND (0.400)	0.266 (0.100)	0.408 (0.100)	0.239 (0.100)	-----		0.611 (0.400)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Cadmium	3/12/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	-----	-----	-----		-----
Cadmium	9/4/2018	mg/L	ND (0.0005)	ND (0.0005)	ND (0.0005)	-----	-----	-----		ND (0.0005)
Cadmium	3/18/2019	mg/L	ND (0.0005)	ND (0.00077)	ND (0.0005)	-----	-----	-----		ND (0.0005)
Cadmium	8/27/2019	mg/L	ND (0.000039)	0.000059 (n/a)	ND (0.0005)	-----	-----	-----		ND (0.000039)
Cadmium	3/26/2020	mg/L	ND (0.0001)	ND (0.001)	ND (0.0001)	-----	-----	-----		ND (0.0001)
Cadmium	9/1/2020	mg/L	ND (0.000049)	0.000076 (n/a)	ND (0.000067)	-----	-----	-----		ND (0.000049)
Cadmium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)
Cadmium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.005)
Cadmium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.25)		-----
Cadmium	3/15/2022	mg/L	ND (0.0001)	ND (0.001)	NA (0.0001)	ND (0.0001)	ND (0.0001)	-----		ND (0.0004)
Cadmium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0075 (0.0001)		-----
Cadmium	9/23/2022	mg/L	ND (0.0001)	ND (0.0007)	0.000151 (0.0001)	ND (0.0001)	ND (0.0001)	-----		ND (0.0007)
Cadmium	3/20/2023	mg/L	ND (0.0001)	ND (0.001)	ND (0.0001)	ND (0.0001)	ND (0.0001)	-----		-----
Cadmium	5/8/2023	mg/L						0.00632 (0.0002)	ND (1.4)	
Cadmium	9/26/2023	mg/L	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)	ND (0.0002)			ND (0.0002)
Calcium	3/12/2018	mg/L	76.3 (n/a)	4.29 (n/a)	86.4 (n/a)	-----	-----	-----		-----
Calcium	9/4/2018	mg/L	165 (n/a)	ND (20)	109 (n/a)	-----	-----	-----		175 (n/a)
Calcium	3/18/2019	mg/L	75.3 (n/a)	1.85 (n/a)	90.3 (n/a)	-----	-----	-----		187 (n/a)
Calcium	8/27/2019	mg/L	80.8 (n/a)	2.33 (n/a)	96.8 (n/a)	-----	-----	-----		188 (n/a)
Calcium	3/26/2020	mg/L	69.6 (n/a)	14.0 (n/a)	100 (n/a)	-----	-----	-----		164 (n/a)
Calcium	9/1/2020	mg/L	68.8 (n/a)	3.09 (n/a)	97.9 (n/a)	-----	-----	-----		153 (n/a)
Calcium	3/18/2021	mg/L	73 (0.2)	1.62 (0.2)	101 (0.2)	-----	-----	-----		210 (0.2)
Calcium	9/16/2021	mg/L	68.6 (0.2)	1.30 (0.2)	97.2 (0.2)	78.2 (0.2)	86.3 (0.2)	-----		202 (0.2)
Calcium	10/8/2021	mg/L	-----	-----	-----	-----	-----	1320 (n/a)		-----
Calcium	3/15/2022	mg/L	76.0 (0.5)	ND (5)	105 (0.5)	87.9 (0.5)	91.4 (0.5)	-----		228 (2)
Calcium	4/19/2022	mg/L	-----	-----	-----	-----	-----	792 (10)		-----
Calcium	9/23/2022	mg/L	76.2 (0.5)	ND (3.5)	87.7 (0.5)	73.3 (0.5)	78.6 (0.5)	-----		257 (3.5)
Calcium	3/20/2023	mg/L	81.0 (0.5)	ND (5)	87.2 (0.5)	68.5 (0.5)	90.0 (0.5)	-----		-----
Calcium	5/8/2023	mg/L						364 (0.5)	249000 (420)	
Calcium	9/26/2023	mg/L	75.4 (0.500)	ND(2.00)	91.2 (0.500)	86.3 (0.500)	98.3 (0.500)	-----		233 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Chloride	3/12/2018	mg/L	1.72 (n/a)	1630 (n/a)	20.1 (n/a)	-----	-----	-----		-----
Chloride	9/4/2018	mg/L	ND (1)	1500 (n/a)	47.5 (n/a)	-----	-----	-----		29.8 (n/a)
Chloride	3/18/2019	mg/L	ND (5)	1630 (n/a)	6.31 (n/a)	-----	-----	-----		32.5 (n/a)
Chloride	8/27/2019	mg/L	1.14 (n/a)	1600 (n/a)	18.9 (n/a)	-----	-----	-----		46.3 (n/a)
Chloride	3/26/2020	mg/L	1.17 (n/a)	1640 (n/a)	16.1 (n/a)	-----	-----	-----		54.3 (n/a)
Chloride	9/1/2020	mg/L	1.32 (n/a)	1580 (n/a)	14.3 (n/a)	-----	-----	-----		74.7 (n/a)
Chloride	3/18/2021	mg/L	1.50 (1)	1760 (200)	21.5 (2)	-----	-----	-----		77.5 (10)
Chloride	9/16/2021	mg/L	1.40 (1)	1540 (200)	6.20 (1)	3.50 (1)	1.60 (1)	-----		89.1 (20)
Chloride	10/8/2021	mg/L	-----	-----	-----	-----	-----	2660 (500)		-----
Chloride	3/15/2022	mg/L	1.15 (1)	1780 (100)	23.7 (1)	5.36 (1)	1.73 (1)	-----		51.1 (1)
Chloride	4/19/2022	mg/L	-----	-----	-----	-----	-----	3170 (100)		-----
Chloride	9/23/2022	mg/L	1.83 (1)	1640 (50)	8.39 (1)	5.34 (1)	3.10 (1)	-----		62.6 (1)
Chloride	3/20/2023	mg/L	1.27 (1)	1580 (100)	13.0 (1)	5.58 (1)	1.50 (1)	-----		-----
Chloride	5/8/2023	mg/L						2800 (100)	6300 (339)	
Chloride	9/26/2023	mg/L	1.04 (1.00)	1490 (200)	3.11 (1.00)	5.03 (1.00)	1.19 (1.00)	-----		138 (100)
Chromium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		-----
Chromium	9/4/2018	mg/L	0.00854 (n/a)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)
Chromium	3/18/2019	mg/L	ND (0.005)	ND (0.00098)	ND (0.005)	-----	-----	-----		ND (0.005)
Chromium	8/27/2019	mg/L	0.00204 (n/a)	ND (0.00098)	ND (0.005)	-----	-----	-----		ND (0.00098)
Chromium	3/26/2020	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	-----	-----	-----		ND (0.005)
Chromium	9/1/2020	mg/L	ND (0.0011)	0.00229 (n/a)	ND (0.0011)	-----	-----	-----		ND (0.0011)
Chromium	3/18/2021	mg/L	ND (0.005)	ND (0.005)	0.0073 (0.005)	-----	-----	-----		ND (0.005)
Chromium	9/16/2021	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.005)
Chromium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.25)		-----
Chromium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.0005)	-----		ND (0.02)
Chromium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0336 (0.1)		-----
Chromium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.035)
Chromium	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.001)	ND (0.005)	-----		-----
Chromium	5/8/2023	mg/L						0.0193 (0.005)	4.9 (4.2)	
Chromium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Cobalt	3/12/2018	mg/L	ND (0.0005)	ND (0.0005)	0.00195 (n/a)	-----	-----	-----		-----
Cobalt	9/4/2018	mg/L	0.00376 (n/a)	ND (0.0005)	0.0026 (n/a)	-----	-----	-----		0.00154 (n/a)
Cobalt	3/18/2019	mg/L	ND (0.0005)	0.00034 (n/a)	0.000861 (n/a)	-----	-----	-----		0.00123 (n/a)
Cobalt	8/27/2019	mg/L	0.000176 (n/a)	0.000228 (n/a)	0.00134 (n/a)	-----	-----	-----		0.000512 (n/a)
Cobalt	3/26/2020	mg/L	ND (0.0005)	ND (0.005)	0.0107 (n/a)	-----	-----	-----		0.00133 (n/a)
Cobalt	9/1/2020	mg/L	ND (0.000091)	0.000371 (n/a)	0.00645 (n/a)	-----	-----	-----		0.000719 (n/a)
Cobalt	3/18/2021	mg/L	ND (0.005)	ND (0.005)	0.0195 (0.005)	-----	-----	-----		ND (0.005)
Cobalt	9/16/2021	mg/L	ND (0.005)	ND (0.005)	0.021 (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.005)
Cobalt	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.25)		-----
Cobalt	3/15/2022	mg/L	ND (0.005)	ND (0.005)	0.00914 (0.0005)	ND (0.0005)	ND (0.0005)	-----		0.00214 (0.002)
Cobalt	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.0751 (0.0005)		-----
Cobalt	9/23/2022	mg/L	ND (0.0005)	ND (0.0005)	0.0578 (0.005)	ND (0.0005)	ND (0.0005)	-----		ND (0.0035)
Cobalt	3/20/2023	mg/L	ND (0.0005)	ND (0.005)	0.00291 (0.005)	ND (0.0005)	ND (0.0005)	-----		-----
Cobalt	5/8/2023	mg/L						0.0377 (0.0005)	2.89 (1.4)	
Cobalt	9/26/2023	mg/L	ND (0.000500)	ND (0.000500)	0.00331 (0.000500)	0.000526 (0.000500)	ND (0.000500)	-----		ND (0.00200)
Copper	3/12/2018	mg/L	ND (0.005)	0.00995 (n/a)	ND (0.005)	-----	-----	-----		-----
Copper	9/4/2018	mg/L	0.0226 (n/a)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)
Copper	3/18/2019	mg/L	ND (0.005)	ND (0.002)	ND (0.005)	-----	-----	-----		ND (0.005)
Copper	8/27/2019	mg/L	ND (0.002)	ND (0.002)	ND (0.005)	-----	-----	-----		ND (0.002)
Copper	3/26/2020	mg/L	ND (0.005)	ND (0.05)	0.00944 (n/a)	-----	-----	-----		ND (0.005)
Copper	9/1/2020	mg/L	0.00338 (n/a)	ND (0.0015)	0.00458 (n/a)	-----	-----	-----		ND (0.0015)
Copper	3/18/2021	mg/L	ND (0.01)	ND (0.01)	0.0112 (0.01)	-----	-----	-----		ND (0.01)
Copper	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----		ND (0.01)
Copper	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.50)		-----
Copper	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.02)
Copper	4/19/2022	mg/L	-----	-----	-----	-----	-----	ND (0.1)		-----
Copper	9/23/2022	mg/L	ND (0.005)	ND (0.035)	0.0101 (0.0005)	ND (0.005)	ND (0.005)	-----		ND (0.035)
Copper	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----
Copper	5/8/2023	mg/L						0.0220 (0.005)	ND (4.2)	
Copper	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Fluoride	3/12/2018	mg/L	0.315 (n/a)	2.96 (n/a)	0.307 (n/a)	-----	-----	-----		-----
Fluoride	9/4/2018	mg/L	0.236 (n/a)	2.50 (n/a)	ND (0.5)	-----	-----	-----		ND (0.1)
Fluoride	3/18/2019	mg/L	ND (0.5)	ND (0.45)	0.227 (n/a)	-----	-----	-----		ND (0.5)
Fluoride	8/27/2019	mg/L	ND (0.045)	3.08 (n/a)	ND (0.5)	-----	-----	-----		ND (0.045)
Fluoride	3/26/2020	mg/L	0.329 (n/a)	3.27 (n/a)	0.275 (n/a)	-----	-----	-----		0.281 (n/a)
Fluoride	9/1/2020	mg/L	0.37 (n/a)	2.81 (n/a)	0.345 (n/a)	-----	-----	-----		0.0568 (n/a)
Fluoride	3/18/2021	mg/L	0.39 (0.2)	3.30 (0.2)	0.34 (0.2)	-----	-----	-----		0.40 (0.2)
Fluoride	9/16/2021	mg/L	0.35 (0.2)	0.60 (0.2)	0.31 (0.2)	0.43 (0.2)	0.39 (0.2)	-----		0.42 (0.2)
Fluoride	10/8/2021	mg/L	-----	-----	-----	-----	-----	14.7 (4)		-----
Fluoride	3/15/2022	mg/L	0.128 (0.1)	ND (10)	ND (0.1)	0.186 (0.1)	ND (0.1)	-----		ND (2)
Fluoride	4/19/2022	mg/L	-----	-----	-----	-----	-----	5.31 (10)		-----
Fluoride	9/23/2022	mg/L	0.292 (0.1)	5.36 (0.1)	0.105 (0.1)	0.195 (0.1)	0.199 (0.1)	-----		0.317 (0.1)
Fluoride	3/20/2023	mg/L	0.338 (0.1)	2.29 (0.1)	ND (0.357)	0.388 (0.1)	0.367 (0.1)	-----		-----
Fluoride	5/8/2023	mg/L						ND (20)	ND (67.9)	
Fluoride	9/26/2023	mg/L	0.252 (0.200)	7.28 (0.200)	0.220 (0.200)	0.295 (0.200)	0.240 (0.200)	-----		0.604 (0.200)
Lead	3/12/2018	mg/L	ND (0.0005)	0.00083 (n/a)	ND (0.0005)	-----	-----	-----		-----
Lead	9/4/2018	mg/L	0.014 (n/a)	ND (0.05)	ND (0.0005)	-----	-----	-----		0.00098 (n/a)
Lead	3/18/2019	mg/L	ND (0.0005)	ND (0.0027)	ND (0.0005)	-----	-----	-----		ND (0.0005)
Lead	8/27/2019	mg/L	ND (0.00027)	ND (0.0027)	ND (0.0005)	-----	-----	-----		ND (0.00027)
Lead	3/26/2020	mg/L	ND (0.0005)	ND (0.005)	0.000584 (n/a)	-----	-----	-----		ND (0.0005)
Lead	9/1/2020	mg/L	0.00019 (n/a)	0.000131 (n/a)	0.000458 (n/a)	-----	-----	-----		0.000129 (n/a)
Lead	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)
Lead	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----		ND (0.01)
Lead	10/8/2021	mg/L	-----	-----	-----	-----	-----	3.56 (0.5)		-----
Lead	3/15/2022	mg/L	ND (0.0005)	ND (0.005)	ND (0.0005)	0.00886 (0.0005)	ND (0.0005)	-----		ND (0.002)
Lead	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.133 (0.0005)		-----
Lead	9/23/2022	mg/L	ND (0.0005)	ND (0.0035)	0.000724 (0.0005)	0.0006 (0.0005)	ND (0.0005)	-----		ND (0.0035)
Lead	3/20/2023	mg/L	ND (0.0005)	ND (0.005)	0.000544 (0.0005)	0.000706 (0.005)	ND (0.0005)	-----		-----
Lead	5/8/2023	mg/L						0.0323 (0.0005)	51.8 (7)	
Lead	9/26/2023	mg/L	ND (0.000500)	ND (0.000500)	0.000611 (0.000500)	0.0134 (0.000500)	0.00143 (0.000500)	-----		ND (0.00200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Lithium	3/12/2018	mg/L	0.0232 (n/a)	0.548 (n/a)	0.0234 (n/a)	-----	-----	-----		-----
Lithium	9/4/2018	mg/L	0.0444 (n/a)	ND (1)	0.0305 (n/a)	-----	-----	-----		0.0376 (n/a)
Lithium	3/18/2019	mg/L	0.0251 (n/a)	0.528 (n/a)	0.0278 (n/a)	-----	-----	-----		0.0327 (n/a)
Lithium	8/27/2019	mg/L	0.0255 (n/a)	0.522 (n/a)	0.0302 (n/a)	-----	-----	-----		0.04 (n/a)
Lithium	3/26/2020	mg/L	0.0235 (n/a)	0.632 (n/a)	0.0303 (n/a)	-----	-----	-----		0.0378 (n/a)
Lithium	9/1/2020	mg/L	0.0229 (n/a)	0.756 (n/a)	0.0325 (n/a)	-----	-----	-----		0.0483 (n/a)
Lithium	3/18/2021	mg/L	0.0232 (0.01)	0.807 (0.01)	0.0321 (0.01)	-----	-----	-----		0.0396 (0.01)
Lithium	9/16/2021	mg/L	0.025 (0.01)	0.653 (0.01)	0.0319 (0.01)	0.0343 (0.01)	0.0291 (0.01)	-----		0.052 (0.01)
Lithium	10/8/2021	mg/L	-----	-----	-----	-----	-----	1.140 (n/a)		-----
Lithium	3/15/2022	mg/L	0.0215 (0.01)	0.745 (0.1)	0.0330 (0.01)	0.0351 (0.01)	0.0284 (0.01)	-----		0.0439 (0.04)
Lithium	4/19/2022	mg/L	-----	-----	-----	-----	-----	1.45 (0.01)		-----
Lithium	9/23/2022	mg/L	0.247 (0.01)	0.778 (0.07)	0.0270 (0.01)	0.0288 (0.01)	0.0227 (0.01)	-----		ND (0.07)
Lithium	3/20/2023	mg/L	0.0202 (0.01)	0.685 (0.1)	0.0238 (0.01)	0.0256 (0.01)	0.0226 (0.01)	-----		-----
Lithium	5/8/2023	mg/L						1.33 (0.3)	ND (7)	
Lithium	9/26/2023	mg/L	0.0258 (0.0100)	0.803 (0.400)	0.0348 (0.0100)	0.0290 (0.0100)	0.0312 (0.0100)	-----		0.0788 (0.0100)
Magnesium	3/12/2018	mg/L	34.2 (n/a)	3.83 (n/a)	33.9 (n/a)	-----	-----	-----		-----
Magnesium	9/4/2018	mg/L	70.4 (n/a)	ND (5)	42.9 (n/a)	-----	-----	-----		70.3 (n/a)
Magnesium	3/18/2019	mg/L	34.4 (n/a)	1.81 (n/a)	37.6 (n/a)	-----	-----	-----		89.6 (n/a)
Magnesium	8/27/2019	mg/L	35.8 (n/a)	1.33 (n/a)	50.7 (n/a)	-----	-----	-----		79.7 (n/a)
Magnesium	3/26/2020	mg/L	33.1 (n/a)	5.18 (n/a)	42.7 (n/a)	-----	-----	-----		75.6 (n/a)
Magnesium	9/1/2020	mg/L	31.4 (n/a)	0.574 (n/a)	43.0 (n/a)	-----	-----	-----		80.7 (n/a)
Magnesium	3/18/2021	mg/L	33.8 (0.05)	0.192 (0.05)	43.3 (0.05)	-----	-----	-----		100 (0.05)
Magnesium	9/16/2021	mg/L	31.6 (0.05)	0.21 (0.05)	41.9 (0.05)	39.6 (0.05)	37.4 (0.05)	-----		101 (0.05)
Magnesium	10/8/2021	mg/L	-----	-----	-----	-----	-----	5980 (n/a)		-----
Magnesium	3/15/2022	mg/L	31.2 (0.5)	ND (5)	41.6 (0.5)	39.3 (0.5)	36.3 (0.5)	-----		104 (2)
Magnesium	4/19/2022	mg/L	-----	-----	-----	-----	-----	6740 (50)		-----
Magnesium	9/23/2022	mg/L	32.6 (0.5)	ND (3.5)	36.4 (0.5)	35.1 (0.5)	32.2 (0.5)	-----		111 (3.5)
Magnesium	3/20/2023	mg/L	34.0 (0.5)	ND (5)	34.7 (0.5)	31.8 (0.5)	35.2 (0.5)	-----		-----
Magnesium	5/8/2023	mg/L						7040 (50)	24000 (420)	
Magnesium	9/26/2023	mg/L	34.1 (0.500)	ND (0.500)	36.4 (0.500)	39.3 (0.500)	40.8 (0.500)	-----		111 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Manganese	3/12/2018	mg/L	0.0585 (n/a)	ND (0.01)	0.0256 (n/a)	-----	-----	-----		-----
Manganese	9/4/2018	mg/L	0.207 (n/a)	ND (0.01)	0.0336 (n/a)	-----	-----	-----		0.126 (n/a)
Manganese	3/18/2019	mg/L	0.0448 (n/a)	0.00314 (n/a)	0.0136 (n/a)	-----	-----	-----		0.0128 (n/a)
Manganese	8/27/2019	mg/L	0.0819 (n/a)	0.00581 (n/a)	0.0226 (n/a)	-----	-----	-----		0.0347 (n/a)
Manganese	3/26/2020	mg/L	0.109 (n/a)	ND (0.1)	0.119 (n/a)	-----	-----	-----		0.0255 (n/a)
Manganese	9/1/2020	mg/L	0.105 (n/a)	0.00642 (n/a)	0.0744 (n/a)	-----	-----	-----		0.0378 (n/a)
Manganese	3/18/2021	mg/L	0.106 (0.005)	ND (0.005)	0.174 (0.005)	-----	-----	-----		0.0508 (0.005)
Manganese	9/16/2021	mg/L	0.0762 (0.005)	0.0052 (0.005)	0.712 (0.005)	0.0584 (0.005)	0.0458 (0.005)	-----		0.0911 (0.005)
Manganese	10/8/2021	mg/L	-----	-----	-----	-----	-----	11.2 (0.25)		-----
Manganese	3/15/2022	mg/L	0.0764 (0.01)	ND (0.1)	0.0901 (0.1)	0.0896 (0.01)	0.0295 (0.01)	-----		0.0581 (0.04)
Manganese	4/19/2022	mg/L	-----	-----	-----	-----	-----	19.3 (0.2)		-----
Manganese	9/23/2022	mg/L	0.0945 (0.01)	ND (0.07)	0.584 (0.01)	ND (0.01)	0.0328 (0.01)	-----		0.0953 (0.07)
Manganese	3/20/2023	mg/L	0.0784 (0.01)	ND (0.1)	0.0500 (0.01)	ND (0.01)	ND (0.0200)	-----		-----
Manganese	5/8/2023	mg/L						7.82 (0.3)	396 (7)	
Manganese	9/26/2023	mg/L	0.0912 (0.0100)	ND (0.0100)	0.0417 (0.0100)	0.0609 (0.0100)	0.112 (0.0100)	-----		0.156 (0.0400)
Molybdenum	3/12/2018	mg/L	ND (0.002)	0.159 (n/a)	ND (0.002)	-----	-----	-----		-----
Molybdenum	9/4/2018	mg/L	0.00218 (n/a)	ND (0.2)	ND (0.002)	-----	-----	-----		0.0132 (n/a)
Molybdenum	3/18/2019	mg/L	ND (0.002)	0.192 (n/a)	ND (0.002)	-----	-----	-----		0.00923 (n/a)
Molybdenum	8/27/2019	mg/L	ND (0.0011)	0.0981 (n/a)	ND (0.002)	-----	-----	-----		0.00906 (n/a)
Molybdenum	3/26/2020	mg/L	ND (0.002)	0.19 (n/a)	ND (0.002)	-----	-----	-----		0.00999 (n/a)
Molybdenum	9/1/2020	mg/L	ND (0.0011)	0.206 (n/a)	ND (0.0011)	-----	-----	-----		0.0125 (n/a)
Molybdenum	3/18/2021	mg/L	ND (0.02)	0.208 (0.02)	ND (0.02)	-----	-----	-----		ND (0.02)
Molybdenum	9/16/2021	mg/L	ND (0.02)	0.185 (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.02)
Molybdenum	10/8/2021	mg/L	-----	-----	-----	-----	-----	6.92 (1.0)		-----
Molybdenum	3/15/2022	mg/L	ND (0.002)	0.218 (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.008)
Molybdenum	4/19/2022	mg/L	-----	-----	-----	-----	-----	7.03 (0.04)		-----
Molybdenum	9/23/2022	mg/L	ND (0.002)	0.170 (0.014)	ND (0.002)	ND (0.002)	ND (0.002)	-----		ND (0.014)
Molybdenum	3/20/2023	mg/L	ND (0.002)	0.222 (0.02)	ND (0.002)	ND (0.002)	ND (0.002)	-----		-----
Molybdenum	5/8/2023	mg/L						4.83 (0.06)	21.9 (2.8)	
Molybdenum	9/26/2023	mg/L	ND (0.00200)	0.184 (0.00200)	ND (0.00200)	ND (0.00200)	ND (0.00200)	-----		ND (0.00800)
Nickel	3/12/2018	mg/L	ND (0.005)	0.00548 (n/a)	0.00637 (n/a)	-----	-----	-----		-----
Nickel	9/4/2018	mg/L	0.0139 (n/a)	ND (0.5)	0.00801 (n/a)	-----	-----	-----		0.0169 (n/a)
Nickel	3/18/2019	mg/L	ND (0.005)	0.00804 (n/a)	ND (0.005)	-----	-----	-----		0.0244 (n/a)
Nickel	8/27/2019	mg/L	ND (0.0017)	0.00725 (n/a)	0.0051 (n/a)	-----	-----	-----		0.0104 (n/a)
Nickel	3/26/2020	mg/L	ND (0.005)	ND (0.05)	0.00448 (n/a)	-----	-----	-----		0.0152 (n/a)
Nickel	9/1/2020	mg/L	ND (0.0019)	0.0119 (n/a)	0.00394 (n/a)	-----	-----	-----		0.00935 (n/a)
Nickel	3/18/2021	mg/L	ND (0.005)	0.0127 (0.005)	0.0131 (0.005)	-----	-----	-----		0.0151 (0.005)
Nickel	9/16/2021	mg/L	ND (0.005)	0.0094 (0.005)	0.0067 (0.005)	ND (0.005)	ND (0.005)	-----		0.0103 (0.005)
Nickel	10/8/2021	mg/L	-----	-----	-----	-----	-----	18.4 (0.25)		-----
Nickel	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		0.0212 (0.200)
Nickel	4/19/2022	mg/L	-----	-----	-----	-----	-----	7.76 (0.1)		-----
Nickel	9/23/2022	mg/L	ND (0.005)	ND (0.035)	0.0189 (0.005)	0.00553 (0.005)	ND (0.005)	-----		ND (0.035)
Nickel	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----
Nickel	5/8/2023	mg/L						5.32 (0.15)	494 (4.2)	
Nickel	9/26/2023	mg/L	ND (0.00500)	0.00828 (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Nitrate	3/12/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		-----
Nitrate	9/4/2018	mg/L	ND (0.1)	ND (5)	ND (0.1)	-----	-----	-----		2.50 (n/a)
Nitrate	3/18/2019	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		2.67 (n/a)
Nitrate	8/27/2019	mg/L	ND (0.046)	ND (0.046)	ND (0.1)	-----	-----	-----		ND (0.046)
Nitrate	3/26/2020	mg/L	ND (0.1)	ND (0.1)	0.061 (n/a)	-----	-----	-----		1.38 (n/a)
Nitrate	9/1/2020	mg/L	ND (0.049)	ND (0.049)	0.214 (n/a)	-----	-----	-----		0.407 (n/a)
Nitrate	3/18/2021	mg/L	ND (0.1)	ND (0.1)	0.18 (0.1)	-----	-----	-----		1.80 (0.1)
Nitrate	9/16/2021	mg/L	ND (0.1)	0.13 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		1.70 (0.1)
Nitrate	10/8/2021	mg/L	-----	-----	-----	-----	-----	293 (20)		-----
Nitrate	3/15/2022	mg/L	ND (0.1)	ND (10)	ND (0.1)	ND (0.1)	ND (0.1)	-----		1.46 (0.1)
Nitrate	4/19/2022	mg/L	-----	-----	-----	-----	-----	333 (10)		-----
Nitrate	9/23/2022	mg/L	0.153 (0.1)	0.163 (0.1)	ND (0.1)	ND (0.1)	1.15 (0.1)	-----		0.578 (0.1)
Nitrate	3/20/2023	mg/L	ND (0.1)	0.999 (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		-----
Nitrate	5/8/2023	mg/L						332 (20)	754 (67.9)	
Nitrate	9/26/2023	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	-----		ND (0.200)
Nitrite	3/26/2020	mg/L	ND (0.039)	ND (0.039)	ND (0.039)	-----	-----	-----		ND (0.039)
Nitrite	9/1/2020	mg/L	ND (0.039)	ND (0.039)	ND (0.039)	-----	-----	-----		ND (0.039)
Nitrite	3/18/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		ND (0.1)
Nitrite	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		0.55 (0.1)
Nitrite	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.1)		-----
Nitrite	3/15/2022	mg/L	ND (0.1)	ND (10)	ND (0.1)	ND (0.1)	ND (0.1)	-----		ND (0.1)
Nitrite	4/19/2022	mg/L	-----	-----	-----	-----	-----	20.3 (10)		-----
Nitrite	9/23/2022	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	0.131 (0.1)	0.128 (0.1)	-----		ND (0.1)
Nitrite	3/20/2023	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		-----
Nitrite	5/8/2023	mg/L						20.9 (20)	ND (67.9)	
Nitrite	9/26/2023	mg/L	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	ND (0.200)	-----		ND (0.200)
Phosphorus	3/12/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		-----
Phosphorus	9/4/2018	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		ND (0.1)
Phosphorus	3/18/2019	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	-----	-----	-----		ND (0.1)
Phosphorus	8/27/2019	mg/L	ND (0.041)	0.117 (n/a)	ND (0.1)	-----	-----	-----		ND (0.41)
Phosphorus	3/26/2020	mg/L	ND (0.1)	0.136 (n/a)	0.075 (n/a)	-----	-----	-----		0.0447 (n/a)
Phosphorus	9/1/2020	mg/L	ND (0.039)	0.131 (n/a)	ND (0.039)	-----	-----	-----		ND (0.039)
Phosphorus	3/18/2021	mg/L	ND (0.1)	0.12 (0.1)	0.12 (0.1)	-----	-----	-----		ND (0.1)
Phosphorus	9/16/2021	mg/L	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	-----		0.46 (0.1)
Phosphorus	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (10.0)		-----
Phosphorus	3/15/2022	mg/L	ND (0.1)	0.152 (0.1)	ND (0.1)	0.131 (0.1)	ND (0.1)	-----		ND (0.1)
Phosphorus	4/19/2022	mg/L	-----	-----	-----	-----	-----	1.76 (0.5)		-----
Phosphorus	9/23/2022	mg/L	ND (0.1)	0.159 (0.1)	0.517 (0.1)	ND (0.1)	ND (0.1)	-----		0.109 (0.1)
Phosphorus	3/20/2023	mg/L	ND (0.1)	0.197 (0.1)	0.160 (0.1)	ND (0.1)	ND (0.1)	-----		-----
Phosphorus	5/8/2023	mg/L						0.205 (0.1)	124 (32.8)	
Phosphorus	9/26/2023	mg/L	ND (0.100)	0.162 (0.100)	0.222 (0.100)	0.131 (0.100)	0.231 (0.100)	-----		0.116 (0.100)
Potassium	3/12/2018	mg/L	4.21 (n/a)	4360 (n/a)	4.40 (n/a)	-----	-----	-----		-----
Potassium	9/4/2018	mg/L	32.7 (n/a)	5260 (n/a)	6.24 (n/a)	-----	-----	-----		44.2 (n/a)
Potassium	3/18/2019	mg/L	4.34 (n/a)	3450 (n/a)	3.95 (n/a)	-----	-----	-----		30.8 (n/a)
Potassium	8/27/2019	mg/L	4.41 (n/a)	4790 (n/a)	7.60 (n/a)	-----	-----	-----		52.8 (n/a)
Potassium	3/26/2020	mg/L	4.20 (n/a)	4210 (n/a)	5.38 (n/a)	-----	-----	-----		55.6 (n/a)
Potassium	9/1/2020	mg/L	3.68 (n/a)	4140 (n/a)	5.68 (n/a)	-----	-----	-----		152 (n/a)
Potassium	3/18/2021	mg/L	6.80 (0.5)	4970 (5)	8.43 (0.5)	-----	-----	-----		72.9 (0.5)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Potassium	9/16/2021	mg/L	3.76 (0.5)	5170 (5)	6.92 (0.5)	6.56 (0.5)	3.48 (0.5)	-----		120 (0.5)
Potassium	10/8/2021	mg/L	-----	-----	-----	-----	-----	932 (n/a)		-----
Potassium	3/15/2022	mg/L	3.57 (0.5)	5200 (50)	6.00 (0.5)	6.26 (0.5)	3.39 (0.5)	-----		55.5 (2)
Potassium	4/19/2022	mg/L	-----	-----	-----	-----	-----	1560 (10)		-----
Potassium	9/23/2022	mg/L	3.95 (0.5)	5160 (50)	4.29 (0.5)	5.82 (0.5)	3.84 (0.5)	-----		95.6 (3.5)
Potassium	3/20/2023	mg/L	4.05 (0.5)	6970 (50)	4.54 (0.5)	5.38 (0.5)	3.48 (0.5)	-----		-----
Potassium	5/8/2023	mg/L						1100 (15)	2930 (420)	
Potassium	9/26/2023	mg/L	3.89 (0.500)	5020 (50.0)	4.61 (0.500)	7.32 (0.500)	3.55 (0.500)	-----		157 (2.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Selenium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		-----
Selenium	9/4/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)
Selenium	3/18/2019	mg/L	ND (0.005)	0.00206 (n/a)	ND (0.005)	-----	-----	-----		ND (0.005)
Selenium	8/27/2019	mg/L	ND (0.001)	0.00179 (n/a)	ND (0.005)	-----	-----	-----		0.00121 (n/a)
Selenium	3/26/2020	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	-----	-----	-----		0.00143 (n/a)
Selenium	9/1/2020	mg/L	ND (0.001)	0.00262 (n/a)	ND (0.001)	-----	-----	-----		ND (0.001)
Selenium	3/18/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	-----	-----	-----		ND (0.015)
Selenium	9/16/2021	mg/L	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	-----		ND (0.015)
Selenium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (0.75)		-----
Selenium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.02)
Selenium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.101 (0.005)		-----
Selenium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.035)
Selenium	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----
Selenium	5/8/2023	mg/L						0.0878 (0.005)	ND (4.2)	
Selenium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)
Silver	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----
Silver	9/4/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		ND (0.001)
Silver	3/18/2019	mg/L	ND (0.001)	ND (0.00037)	ND (0.001)	-----	-----	-----		ND (0.001)
Silver	8/27/2019	mg/L	ND (0.00037)	ND (0.00037)	ND (0.001)	-----	-----	-----		ND (0.00037)
Silver	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.00101)	-----	-----	-----		ND (0.001)
Silver	9/1/2020	mg/L	ND (0.00037)	ND (0.00037)	ND (0.00037)	-----	-----	-----		ND (0.00037)
Silver	3/18/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	-----	-----	-----		ND (0.007)
Silver	9/16/2021	mg/L	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	-----		ND (0.007)
Silver	10/8/2021	mg/L	-----	-----	-----	-----	-----	0.678 (0.35)		-----
Silver	3/15/2022	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.004)
Silver	4/19/2022	mg/L	-----	-----	-----	-----	-----	ND (0.02)		-----
Silver	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.007)
Silver	3/20/2023	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		-----
Silver	5/8/2023	mg/L						ND (0.001)	ND (1.4)	
Silver	9/26/2023	mg/L	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00400)
Sodium	3/12/2018	mg/L	14.4 (n/a)	426 (n/a)	29.2 (n/a)	-----	-----	-----		-----
Sodium	9/4/2018	mg/L	44.4 (n/a)	490 (n/a)	45.5 (n/a)	-----	-----	-----		26.8 (n/a)
Sodium	3/18/2019	mg/L	14.3 (n/a)	531 (n/a)	21.5 (n/a)	-----	-----	-----		25.2 (n/a)
Sodium	8/27/2019	mg/L	14.2 (n/a)	425 (n/a)	38.9 (n/a)	-----	-----	-----		26.6 (n/a)
Sodium	3/26/2020	mg/L	14.8 (n/a)	391 (n/a)	27.1 (n/a)	-----	-----	-----		29.8 (n/a)
Sodium	9/1/2020	mg/L	12.8 (n/a)	630 (n/a)	30.6 (n/a)	-----	-----	-----		43.7 (n/a)
Sodium	3/18/2021	mg/L	12.5 (0.5)	358 (0.5)	33.5 (0.5)	-----	-----	-----		35.1 (0.5)
Sodium	9/16/2021	mg/L	11.5 (0.5)	384 (0.5)	35.2 (0.5)	17.5 (0.5)	19.0 (0.5)	-----		37.6 (0.5)
Sodium	10/8/2021	mg/L	-----	-----	-----	-----	-----	842 (n/a)		-----
Sodium	3/15/2022	mg/L	11.9 (1)	434 (10)	34.1 (1)	20.8 (1)	23.9 (1)	-----		30.1 (4)
Sodium	4/19/2022	mg/L	-----	-----	-----	-----	-----	1320 (20)		-----
Sodium	9/23/2022	mg/L	11.9 (1)	422 (7)	21.8 (1)	17.4 (1)	17.9 (1)	-----		37.1 (7)
Sodium	3/20/2023	mg/L	11.9 (1)	442 (10)	21.4 (1)	15.5 (1)	19.9 (1)	-----		-----
Sodium	5/8/2023	mg/L						1020 (30)	2750 (700)	
Sodium	9/26/2023	mg/L	12.6 (1.00)	434 (1.00)	18.1 (1.00)	19.7 (1.00)	20.1 (1.00)	-----		54.6 (4.00)
Sulfate	3/12/2018	mg/L	33.2 (n/a)	3950 (n/a)	78.2 (n/a)	-----	-----	-----		-----
Sulfate	9/4/2018	mg/L	30.9 (n/a)	3560 (n/a)	139 (n/a)	-----	-----	-----		551 (n/a)
Sulfate	3/18/2019	mg/L	31.3 (n/a)	3560 (n/a)	40.7 (n/a)	-----	-----	-----		659 (n/a)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Sulfate	8/27/2019	mg/L	32.2 (n/a)	3440 (n/a)	74.4 (n/a)	-----	-----	-----		697 (n/a)
Sulfate	3/26/2020	mg/L	31.6 (n/a)	3330 (n/a)	71.2 (n/a)	-----	-----	-----		684 (n/a)
Sulfate	9/1/2020	mg/L	29.9 (n/a)	3190 (n/a)	65.0 (n/a)	-----	-----	-----		643 (n/a)
Sulfate	3/18/2021	mg/L	30.2 (5)	3640 (200)	83.5 (10)	-----	-----	-----		977 (50)
Sulfate	9/16/2021	mg/L	27.6 (5)	3170 (200)	36.4 (5)	32.9 (5)	25.3 (2)	-----		896 (200)
Sulfate	10/8/2021	mg/L	-----	-----	-----	-----	-----	20900 (2000)		-----
Sulfate	3/15/2022	mg/L	30.9 (1)	3520 (100)	84.2 (1)	38.9 (1)	31.4 (1)	-----		782 (20)
Sulfate	4/19/2022	mg/L	-----	-----	-----	-----	-----	19700 (1000)		-----
Sulfate	9/23/2022	mg/L	38.9 (1)	3140 (50)	39.7 (1)	28.8 (1)	25.3 (1)	-----		3150 (50)
Sulfate	3/20/2023	mg/L	31.3 (1)	3140 (100)	57.4 (1)	37.2 (1)	28.6 (1)	-----		-----
Sulfate	5/8/2023	mg/L						22800 (250)	95300 (1700)	
Sulfate	9/26/2023	mg/L	30.8 (1.00)	3080 (200)	31.8 (1.00)	33.5 (1.00)	25.6 (1.00)	-----		1050 (100)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Thallium	3/12/2018	mg/L	ND (0.001)	ND (0.001)	ND (0.001)	-----	-----	-----		-----
Thallium	9/4/2018	mg/L	ND (0.001)	ND (0.1)	ND (0.001)	-----	-----	-----		ND (0.001)
Thallium	3/18/2019	mg/L	ND (0.001)	ND (0.0027)	ND (0.001)	-----	-----	-----		ND (0.001)
Thallium	8/27/2019	mg/L	ND (0.00027)	ND (0.0027)	ND (0.001)	-----	-----	-----		ND (0.00027)
Thallium	3/26/2020	mg/L	ND (0.001)	ND (0.01)	ND (0.00101)	-----	-----	-----		ND (0.001)
Thallium	9/1/2020	mg/L	ND (0.00026)	ND (0.00026)	ND (0.00026)	-----	-----	-----		ND (0.00026)
Thallium	3/18/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	-----	-----	-----		ND (0.02)
Thallium	9/16/2021	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.02)
Thallium	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (1.0)		-----
Thallium	3/15/2022	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.004)
Thallium	4/19/2022	mg/L	-----	-----	-----	-----	-----	0.00982 (0.001)		-----
Thallium	9/23/2022	mg/L	ND (0.001)	ND (0.007)	ND (0.001)	ND (0.001)	ND (0.001)	-----		ND (0.007)
Thallium	3/20/2023	mg/L	ND (0.001)	ND (0.01)	ND (0.001)	ND (0.001)	ND (0.001)	-----		-----
Thallium	5/8/2023	mg/L						0.0111 (0.001)	ND (1.4)	
Thallium	9/26/2023	mg/L	ND (0.00100)	ND (0.00400)	ND (0.00100)	ND (0.00100)	ND (0.00100)	-----		ND (0.00400)
Total Dissolved Solids	3/12/2018	mg/L	306 (n/a)	10700 (n/a)	812 (n/a)	-----	-----	-----		-----
Total Dissolved Solids	9/4/2018	mg/L	294 (n/a)	11000 (n/a)	546 (n/a)	-----	-----	-----		976 (n/a)
Total Dissolved Solids	3/18/2019	mg/L	324 (n/a)	10800 (n/a)	422 (n/a)	-----	-----	-----		1090 (n/a)
Total Dissolved Solids	8/27/2019	mg/L	948 (n/a)	10800 (n/a)	498 (n/a)	-----	-----	-----		1220 (n/a)
Total Dissolved Solids	3/26/2020	mg/L	310 (n/a)	11700 (n/a)	438 (n/a)	-----	-----	-----		1260 (n/a)
Total Dissolved Solids	9/1/2020	mg/L	354 (n/a)	11300 (n/a)	434 (n/a)	-----	-----	-----		1400 (n/a)
Total Dissolved Solids	3/18/2021	mg/L	343 (10)	12800 (500)	555 (10)	-----	-----	-----		1500 (20)
Total Dissolved Solids	9/16/2021	mg/L	329 (5)	12200 (333)	467 (10)	372 (10)	405 (10)	-----		1560 (20)
Total Dissolved Solids	10/8/2021	mg/L	-----	-----	-----	-----	-----	40800 (2000)		-----
Total Dissolved Solids	3/15/2022	mg/L	268 (50)	11000 (250)	440 (50)	314 (50)	364 (50)	-----		1040 (250)
Total Dissolved Solids	4/19/2022	mg/L	-----	-----	-----	-----	-----	33200 (2500)		-----
Total Dissolved Solids	9/23/2022	mg/L	368 (50)	11600 (250)	402 (50)	354 (50)	366 (50)	-----		1480 (50)
Total Dissolved Solids	3/20/2023	mg/L	268 (50)	8700 (2500)	404 (50)	324 (50)	358 (50)	-----		-----
Total Dissolved Solids	5/8/2023	mg/L						37800 (2500)	2700 (50)	
Total Dissolved Solids	9/26/2023	mg/L	300 (50.0)	11000 (500)	394 (50.0)	318 (50.0)	398 (50.0)	-----		1930 (50.0)
Vanadium	3/12/2018	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	-----	-----	-----		-----
Vanadium	9/4/2018	mg/L	0.00573 (n/a)	ND (0.005)	ND (0.005)	-----	-----	-----		ND (0.005)
Vanadium	3/18/2019	mg/L	ND (0.005)	ND (0.00082)	ND (0.005)	-----	-----	-----		ND (0.005)
Vanadium	8/27/2019	mg/L	ND (0.00082)	ND (0.00082)	ND (0.005)	-----	-----	-----		ND (0.00082)
Vanadium	3/26/2020	mg/L	ND (0.005)	ND (0.05)	0.000971 (n/a)	-----	-----	-----		ND (0.005)
Vanadium	9/1/2020	mg/L	ND (0.00085)	0.00179 (n/a)	ND (0.00085)	-----	-----	-----		ND (0.00085)
Vanadium	3/18/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)
Vanadium	9/16/2021	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-----		ND (0.01)
Vanadium	10/8/2021	mg/L	-----	-----	-----	-----	-----	96.4 (0.5)		-----
Vanadium	3/15/2022	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.02)
Vanadium	4/19/2022	mg/L	-----	-----	-----	-----	-----	44.4 (1)		-----
Vanadium	9/23/2022	mg/L	ND (0.005)	ND (0.035)	ND (0.005)	ND (0.005)	ND (0.005)	-----		ND (0.035)
Vanadium	3/20/2023	mg/L	ND (0.005)	ND (0.05)	ND (0.005)	ND (0.005)	ND (0.005)	-----		-----
Vanadium	5/8/2023	mg/L						40.5 (0.5)	1190 (21)	
Vanadium	9/26/2023	mg/L	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	-----		ND (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	MW-16L (DwnGrd)	MW-18 (DwnGrd)	MW-19 (DwnGrd)	MW-20 (DwnGrd)	MW-21 (DwnGrd)	MW-2CR (aqueous)	MW-2CR (solid)	Q-Sump
Zinc	3/12/2018	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	-----	-----	-----		-----
Zinc	9/4/2018	mg/L	ND (0.02)	ND (0.02)	ND (0.02)	-----	-----	-----		0.0207 (n/a)
Zinc	3/18/2019	mg/L	ND (0.02)	ND (0.01)	ND (0.02)	-----	-----	-----		ND (0.02)
Zinc	8/27/2019	mg/L	ND (0.01)	ND (0.01)	ND (0.02)	-----	-----	-----		ND (0.01)
Zinc	3/26/2020	mg/L	ND (0.02)	ND (0.2)	0.0126 (n/a)	-----	-----	-----		ND (0.02)
Zinc	9/1/2020	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-----	-----	-----		ND (0.01)
Zinc	3/18/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	-----	-----	-----		ND (0.05)
Zinc	9/16/2021	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	-----		ND (0.05)
Zinc	10/8/2021	mg/L	-----	-----	-----	-----	-----	ND (2.5)		-----
Zinc	3/15/2022	mg/L	ND (0.02)	ND (0.2)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.08)
Zinc	4/19/2022	mg/L	-----	-----	-----	-----	-----	1.55 (0.02)		-----
Zinc	9/23/2022	mg/L	ND (0.02)	ND (0.14)	ND (0.02)	ND (0.02)	ND (0.02)	-----		ND (0.14)
Zinc	3/20/2023	mg/L	ND (0.02)	ND (0.2)	ND (0.02)	ND (0.02)	ND (0.02)	-----		-----
Zinc	5/8/2023	mg/L						ND (0.6)	ND (14)	
Zinc	9/26/2023	mg/L	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	-----		ND (0.0800)

Notes:
mg/L - milligrams per Liter
ug/L - micrograms per Liter
umhos/cm - microhos per centimeter
n/a - not applicable
SU - standard unit
ND = non detect
(10) - detection limit

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
pH	3/12/2018	SU	12.2	Dry	Dry	-----	13.2	7.6	-----	8.5	Dry
pH	9/4/2018	SU	12.2	Dry	Dry	-----	13.2	6.7	-----	8.5	Dry
pH	3/18/2019	SU	-----	Dry	Dry	-----	-----	6.7	-----	-----	Dry
pH	8/27/2019	SU	12.9	Dry	Dry	-----	12.9	8.5	-----	-----	Dry
pH	3/26/2020	SU	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
pH	9/1/2020	SU	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
pH	3/18/2021	SU	9.07	Dry	Dry	-----	8.02	8.06	7.74	8.24	Dry
pH	9/16/2021	SU	-----	Dry	Dry	-----	-----	7.14	6.89	-----	Dry
pH	10/8/2021	SU	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	3/15/2022	SU	13.68	Dry	Dry	Dry	13.32	7.46	-----	7.86	Dry
pH	4/19/2022	SU	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	9/23/2022	SU	12.92	Dry	Dry	Dry	Dry	8.8	-----	12.39	9.79
pH	3/20/2023	SU	-----	-----	-----	Dry	-----	-----	-----	-----	-----
pH	5/8/2023	SU	-----	-----	-----	-----	-----	-----	-----	-----	-----
pH	9/26/2023	SU	12.79	Dry	Dry	Dry	12.88	12.38	6.37	Dry	9.82
Specific Conductivity	3/12/2018	umhos/cm	8720 (n/a)	Dry	Dry	-----	13280 (n/a)	3950 (n/a)	-----	652 (n/a)	Dry
Specific Conductivity	9/4/2018	umhos/cm	8720 (n/a)	Dry	Dry	-----	13280 (n/a)	4810 (n/a)	-----	652 (n/a)	Dry
Specific Conductivity	3/18/2019	umhos/cm	-----	Dry	Dry	-----	-----	4810 (n/a)	-----	-----	Dry
Specific Conductivity	8/27/2019	umhos/cm	-----	Dry	Dry	-----	8640 (n/a)	2090 (n/a)	-----	-----	Dry
Specific Conductivity	3/26/2020	umhos/cm	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Specific Conductivity	9/1/2020	umhos/cm	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Specific Conductivity	3/18/2021	umhos/cm	3100 (1)	Dry	Dry	-----	9000 (1)	1470 (1)	2800 (1)	2300 (1)	Dry
Specific Conductivity	9/16/2021	umhos/cm	-----	Dry	Dry	-----	1040 (n/a)	1100 (n/a)	3400 (n/a)	-----	Dry
Specific Conductivity	10/8/2021	umhos/cm	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	3/15/2022	umhos/cm	61090 (N/A)	Dry	Dry	Dry	30990 (N/A)	5490 (N/A)	-----	6968 (N/A)	Dry
Specific Conductivity	4/19/2022	umhos/cm	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/23/2022	umhos/cm	113739 (N/A)	Dry	Dry	Dry	Dry	30600 (N/A)	-----	7185 (N/A)	84421 (N/A)
Specific Conductivity	3/20/2023	umhos/cm	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Specific Conductivity	5/8/2023	umhos/cm	-----	-----	-----	-----	-----	-----	-----	-----	-----
Specific Conductivity	9/26/2023	umhos/cm	79900	Dry	Dry	Dry	21730	24740	12070	Dry	60340
Alkalinity, Total	9/1/2020	mg/L	982 (n/a)	Dry	Dry	-----	-----	-----	-----	Dry	Dry
Alkalinity, Total	9/16/2021	mg/L	205 (20)	Dry	Dry	-----	28800 (600)	726 (20)	462 (20)	Dry	Dry
Alkalinity, Total	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	Dry	-----
Alkalinity, Total	3/15/2022	mg/L	2210 (10)	Dry	Dry	Dry	3380 (10)	578 (10)	412 (10)	Dry	Dry
Alkalinity, Total	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	Dry	-----
Alkalinity, Total	9/23/2022	mg/L	2810 (25)	Dry	Dry	Dry	Dry	295 (25)	-----	Dry	1910 (25)
Alkalinity, Total	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	Dry	-----
Alkalinity, Total	5/8/2023	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Total	9/26/2023	mg/L	3140 (25.0)	Dry	Dry	Dry	3830 (25.0)	1800 (25.0)	421 (5.00)	Dry	1870 (5.00)
Alkalinity, Bicarbonate	9/16/2021	mg/L	205 (20)	Dry	Dry	-----	ND (600)	726 (20)	462 (20)	108 (n/a)	Dry
Alkalinity, Bicarbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	3/15/2022	mg/L	ND (10)	Dry	Dry	Dry	ND (10)	578 (10)	412 (10)	47 (10)	Dry
Alkalinity, Bicarbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/23/2022	mg/L	ND (25)	Dry	Dry	Dry	Dry	295 (25)	-----	ND (10)	863 (25)
Alkalinity, Bicarbonate	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	5/8/2023	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Bicarbonate	9/26/2023	mg/L	ND (25.0)	Dry	Dry	Dry	ND (25.0)	ND (25.0)	421 (5.00)	Dry	879 (5.00)
Alkalinity, Carbonate	9/16/2021	mg/L	ND (20)	Dry	Dry	-----	15800 (600)	ND (20)	ND (20)	-----	Dry

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Alkalinity, Carbonate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	3/15/2022	mg/L	862 (10)	Dry	Dry	Dry	314 (10)	ND (10)	ND (10)	ND (10)	Dry
Alkalinity, Carbonate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Alkalinity, Carbonate	9/23/2022	mg/L	1140 (25)	Dry	Dry	Dry	Dry	ND (25)	-----	101 (10)	1040 (25)
Alkalinity, Carbonate	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Alkalinity, Carbonate	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Alkalinity, Carbonate	5/8/2023	mg/L									
Alkalinity, Carbonate	9/26/2023	mg/L	1510 (25.0)	Dry	Dry	Dry	331 (25.0)	945 (25.0)	ND (5.00)	Dry	994 (5.00)
Bromate	3/18/2021	ug/L	ND (500)	Dry	Dry	ND (500)	ND (500)	ND (500)	ND (500)	ND	Dry
Bromate	9/16/2021	ug/L	ND (200)	Dry	Dry	-----	ND (100)	ND (100)	ND (20)	-----	Dry
Bromate	10/8/2021	ug/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bromate	3/15/2022	ug/L	ND (100)	Dry	Dry	Dry	ND (500)	ND (50)	ND (500)	ND (500)	Dry
Bromate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bromate	9/23/2022	ug/L	ND (500)	Dry	Dry	Dry	Dry	ND (500)	-----	ND (500)	ND (500)
Bromate	3/20/2023	ug/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Bromate	5/8/2023	ug/L									
Bromate	9/26/2023	ug/L	ND (500)	Dry	Dry	Dry	ND (500)	ND (500)	ND (1.00)	Dry	ND (500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Aluminium	3/12/2018	mg/L	ND (0.05)	Dry	Dry	-----	ND (2.5)	0.207 (n/a)	-----	1.35 (n/a)	Dry
Aluminium	9/4/2018	mg/L	ND (5)	Dry	Dry	-----	2.68 (n/a)	ND (0.5)	-----	-----	Dry
Aluminium	3/18/2019	mg/L	0.887 (n/a)	Dry	Dry	-----	0.858 (n/a)	0.0807 (n/a)	-----	-----	Dry
Aluminium	8/27/2019	mg/L	0.446 (n/a)	Dry	Dry	-----	0.217 (n/a)	ND (0.27)	-----	-----	Dry
Aluminium	3/26/2020	mg/L	0.405 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Aluminium	9/1/2020	mg/L	1.99 (n/a)	Dry	Dry	-----	0.146 (n/a)	-----	-----	-----	Dry
Aluminium	3/18/2021	mg/L	0.564 (0.075)	Dry	Dry	7.55 (0.15)	0.83 (0.075)	0.371 (0.075)	4.26 (0.075)	1.65 (0.075)	Dry
Aluminium	9/16/2021	mg/L	8.58 (0.075)	Dry	Dry	-----	0.269 (0.075)	0.236 (0.075)	0.802 (0.075)	-----	Dry
Aluminium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Aluminium	3/15/2022	mg/L	5.15 (1)	Dry	Dry	Dry	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	Dry
Aluminium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Aluminium	9/23/2022	mg/L	3.20 (0.5)	Dry	Dry	Dry	Dry	ND (0.5)	-----	0.231 (0.05)	1.13 (0.5)
Aluminium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Aluminium	5/8/2023	mg/L									
Aluminium	9/26/2023	mg/L	1.51 (0.500)	Dry	Dry	Dry	ND (0.500)	6.02 (5.00)	ND (0.500)	Dry	ND (0.500)
Antimony	3/12/2018	mg/L	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Antimony	9/4/2018	mg/L	ND (0.1)	Dry	Dry	-----	ND (0.003)	ND (0.01)	-----	-----	Dry
Antimony	3/18/2019	mg/L	ND (0.0053)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Antimony	8/27/2019	mg/L	ND (0.0053)	Dry	Dry	-----	ND (0.00053)	0.000585 (n/a)	-----	-----	Dry
Antimony	3/26/2020	mg/L	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Antimony	9/1/2020	mg/L	0.000827 (n/a)	Dry	Dry	-----	0.000602 (n/a)	-----	-----	-----	Dry
Antimony	3/18/2021	mg/L	ND (0.015)	Dry	Dry	ND (0.03)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	Dry
Antimony	9/16/2021	mg/L	ND (0.015)	Dry	Dry	-----	ND (0.015)	ND (0.015)	ND (0.015)	-----	Dry
Antimony	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Antimony	3/15/2022	mg/L	ND (0.04)	Dry	Dry	Dry	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Antimony	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Antimony	9/23/2022	mg/L	ND (0.02)	Dry	Dry	Dry	Dry	ND (0.02)	-----	ND (0.002)	ND (0.02)
Antimony	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Antimony	5/8/2023	mg/L									
Antimony	9/26/2023	mg/L	ND (0.02)				ND (0.002)	ND (0.002)	ND (0.002)	Dry	ND (0.02)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Arsenic	3/12/2018	mg/L	0.0137 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.002)	-----	ND (0.008)	Dry
Arsenic	9/4/2018	mg/L	0.211 (n/a)	Dry	Dry	-----	0.00527 (n/a)	ND (0.002)	-----	-----	Dry
Arsenic	3/18/2019	mg/L	0.112 (n/a)	Dry	Dry	-----	0.00299 (n/a)	ND (0.002)	-----	-----	Dry
Arsenic	8/27/2019	mg/L	0.113 (n/a)	Dry	Dry	-----	ND (0.00525)	0.00442 (n/a)	-----	-----	Dry
Arsenic	3/26/2020	mg/L	0.0977 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Arsenic	9/1/2020	mg/L	0.0441 (n/a)	Dry	Dry	-----	0.00182 (n/a)	-----	-----	-----	Dry
Arsenic	3/18/2021	mg/L	0.0208 (0.01)	Dry	Dry	0.044 (0.01)	ND (0.01)	ND (0.01)	0.0111 (0.01)	0.0127 (0.01)	Dry
Arsenic	9/16/2021	mg/L	0.245 (0.1)	Dry	Dry	-----	ND (0.1)	ND (0.1)	ND (0.01)	-----	Dry
Arsenic	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arsenic	3/15/2022	mg/L	0.246 (0.04)	Dry	Dry	Dry	ND (0.002)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Arsenic	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Arsenic	9/23/2022	mg/L	0.103 (0.04)	Dry	Dry	Dry	Dry	0.0119 (0.02)	-----	0.00298 (0.02)	0.0212 (0.02)
Arsenic	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Arsenic	5/8/2023	mg/L									
Arsenic	9/26/2023	mg/L	0.180 (0.0200)	Dry	Dry		ND (0.0200)	0.234 (0.200)	ND (0.0200)	Dry	0.0201 (0.0200)
Barium	3/12/2018	mg/L	0.0216 (n/a)	Dry	Dry	-----	0.149 (n/a)	0.0848 (n/a)	-----	0.104 (n/a)	Dry
Barium	9/4/2018	mg/L	ND (0.2)	Dry	Dry	-----	0.354 (n/a)	0.211 (n/a)	-----	-----	Dry
Barium	3/18/2019	mg/L	0.0331 (n/a)	Dry	Dry	-----	0.165 (n/a)	0.0459 (n/a)	-----	-----	Dry
Barium	8/27/2019	mg/L	0.0522 (n/a)	Dry	Dry	-----	0.167 (n/a)	0.171 (n/a)	-----	-----	Dry
Barium	3/26/2020	mg/L	0.0421 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Barium	9/1/2020	mg/L	0.0351 (n/a)	Dry	Dry	-----	0.159 (n/a)	-----	-----	-----	Dry
Barium	3/18/2021	mg/L	0.0272 (0.005)	Dry	Dry	2.66 (0.005)	0.25 (0.005)	0.0987 (0.005)	0.0948 (0.005)	0.236 (0.005)	Dry
Barium	9/16/2021	mg/L	0.0243 (0.005)	Dry	Dry	-----	0.177 (0.005)	0.468 (0.005)	0.0969 (0.005)	-----	Dry
Barium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Barium	3/15/2022	mg/L	0.0475 (0.04)	Dry	Dry	Dry	0.180 (0.02)	0.226 (0.02)	0.108 (0.02)	0.180 (0.02)	Dry
Barium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Barium	9/23/2022	mg/L	0.0579 (0.002)	Dry	Dry	Dry	Dry	0.138 (0.002)	-----	0.183 (0.002)	0.0681(0.002)
Barium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Barium	5/8/2023	mg/L									
Barium	9/26/2023	mg/L	0.171 (0.0200)	Dry	Dry		0.114 (0.0200)	0.786 (0.0200)	0.121 (0.0200)	Dry	0.0765 (0.0200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Beryllium	3/12/2018	mg/L	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Beryllium	9/4/2018	mg/L	ND (0.1)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Beryllium	3/18/2019	mg/L	ND (0.00027)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Beryllium	8/27/2019	mg/L	ND (0.00027)	Dry	Dry	-----	ND (0.00189)	ND (0.0027)	-----	-----	Dry
Beryllium	3/26/2020	mg/L	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Beryllium	9/1/2020	mg/L	ND (0.00027)	Dry	Dry	-----	ND (0.00027)	-----	-----	-----	Dry
Beryllium	3/18/2021	mg/L	ND (0.001)	Dry	Dry	ND (0.002)	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	Dry
Beryllium	9/16/2021	mg/L	ND (0.001)	Dry	Dry	-----	ND (0.001)	ND (0.001)	ND (0.001)	-----	Dry
Beryllium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Beryllium	3/15/2022	mg/L	ND (0.02)	Dry	Dry	Dry	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	Dry
Beryllium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Beryllium	9/23/2022	mg/L	ND (0.01)	Dry	Dry	Dry	Dry	ND (0.001)	-----	ND (0.001)	ND (0.01)
Beryllium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Beryllium	5/8/2023	mg/L									
Beryllium	9/26/2023	mg/L	ND (0.0100)	Dry	Dry		ND (0.0100)	ND (0.0100)	ND (0.0100)	Dry	ND (0.0100)
Boron	3/12/2018	mg/L	ND (0.2)	Dry	Dry	-----	ND (10)	ND (0.2)	-----	ND (0.8)	Dry
Boron	9/4/2018	mg/L	ND (20)	Dry	Dry	-----	ND (0.05)	ND (0.2)	-----	-----	Dry
Boron	3/18/2019	mg/L	ND (0.11)	Dry	Dry	-----	ND (0.2)	ND (0.2)	-----	-----	Dry
Boron	8/27/2019	mg/L	ND (0.11)	Dry	Dry	-----	ND (0.77)	ND (1.1)	-----	-----	Dry
Boron	3/26/2020	mg/L	ND (2)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Boron	9/1/2020	mg/L	ND (0.32)	Dry	Dry	-----	ND (0.8)	-----	-----	-----	Dry
Boron	3/18/2021	mg/L	ND (0.1)	Dry	Dry	ND (0.1)	ND (0.1)	0.112 (0.1)	ND (0.1)	ND (0.1)	Dry
Boron	9/16/2021	mg/L	ND (0.1)	Dry	Dry	-----	ND (0.1)	0.157 (0.1)	ND (0.1)	-----	Dry
Boron	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Boron	3/15/2022	mg/L	ND (2)	Dry	Dry	Dry	ND (1)	ND (1)	ND (1)	ND (1)	Dry
Boron	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Boron	9/23/2022	mg/L	ND (1)	Dry	Dry	Dry	Dry	ND (1)	-----	ND (0.1)	ND (1)
Boron	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Boron	5/8/2023	mg/L									
Boron	9/26/2023	mg/L	ND (1.00)	Dry	Dry		ND (1.00)	ND (1.00)	ND (1.00)	Dry	ND (1.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Cadmium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cadmium	9/4/2018	mg/L	ND (0.0005)	Dry	Dry	-----	ND (0.025)	ND (0.0005)	-----	ND (0.002)	Dry
Cadmium	3/18/2019	mg/L	ND (0.05)	Dry	Dry	-----	ND (0.0005)	ND (0.005)	-----	-----	Dry
Cadmium	8/27/2019	mg/L	ND (0.00077)	Dry	Dry	-----	ND (0.0005)	ND (0.0005)	-----	-----	Dry
Cadmium	3/26/2020	mg/L	ND (0.001)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cadmium	9/1/2020	mg/L	ND (0.000049)	Dry	Dry	-----	0.000094 (n/a)	-----	-----	-----	Dry
Cadmium	3/18/2021	mg/L	ND (0.005)	Dry	Dry	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	Dry
Cadmium	9/16/2021	mg/L	ND (0.005)	Dry	Dry	-----	ND (0.005)	ND (0.005)	ND (0.005)	-----	Dry
Cadmium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cadmium	3/15/2022	mg/L	ND (0.002)	Dry	Dry	Dry	ND (0.001)	ND (0.001)	ND (0.001)	ND (0.001)	Dry
Cadmium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cadmium	9/23/2022	mg/L	ND (0.0001)	Dry	Dry	Dry	Dry	0.000102 (0.0001)	-----	ND (0.0001)	0.000720 (0.0001)
Cadmium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Cadmium	5/8/2023	mg/L									
Cadmium	9/26/2023	mg/L	ND (0.002)	Dry	Dry		ND (0.002)	0.0044 (0.002)	ND (0.002)	Dry	ND (0.002)
Calcium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Calcium	9/4/2018	mg/L	33.0 (n/a)	Dry	Dry	-----	872 (n/a)	445 (n/a)	-----	28.9 (n/a)	Dry
Calcium	3/18/2019	mg/L	ND (20)	Dry	Dry	-----	869 (n/a)	432 (n/a)	-----	-----	Dry
Calcium	8/27/2019	mg/L	53.5 (n/a)	Dry	Dry	-----	890 (n/a)	272 (n/a)	-----	-----	Dry
Calcium	3/26/2020	mg/L	42.4 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Calcium	9/1/2020	mg/L	27.1 (n/a)	Dry	Dry	-----	603 (n/a)	-----	-----	-----	Dry
Calcium	3/18/2021	mg/L	25.8 (0.2)	Dry	Dry	1440 (0.4)	636 (0.2)	181 (0.2)	458 (0.2)	280 (0.2)	Dry
Calcium	9/16/2021	mg/L	12.0 (0.2)	Dry	Dry	-----	579 (0.2)	547 (0.2)	270 (0.2)	-----	Dry
Calcium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Calcium	3/15/2022	mg/L	73.7 (10)	Dry	Dry	Dry	606 (5)	438 (5)	677 (5)	589 (5)	Dry
Calcium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Calcium	9/23/2022	mg/L	82.9 (0.5)	Dry	Dry	Dry	Dry	120 (0.5)	-----	396 (0.5)	78.7 (0.5)
Calcium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Calcium	5/8/2023	mg/L									
Calcium	9/26/2023	mg/L	297 (50.0)	Dry	Dry	Dry	512 (50.0)	997 (50.0)	1220 (5.00)	Dry	24.2 (5.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Chloride	3/12/2018	mg/L	1320 (n/a)	Dry	Dry	-----	471 (n/a)	672 (n/a)	-----	52.7 (n/a)	Dry
Chloride	9/4/2018	mg/L	8790 (n/a)	Dry	Dry	-----	471 (n/a)	952 (n/a)	-----	52.7 (n/a)	Dry
Chloride	3/18/2019	mg/L	6530 (n/a)	Dry	Dry	-----	108 (n/a)	952 (n/a)	-----	-----	Dry
Chloride	8/27/2019	mg/L	10100 (n/a)	Dry	Dry	-----	81.4 (n/a)	ND (5)	-----	-----	Dry
Chloride	3/26/2020	mg/L	822 (n/a)	Dry	Dry	-----	81.4 (n/a)	-----	-----	-----	Dry
Chloride	9/1/2020	mg/L	4240 (n/a)	Dry	Dry	-----	1080 (n/a)	-----	-----	-----	Dry
Chloride	3/18/2021	mg/L	810 (50)	Dry	Dry	157 (50)	968 (50)	129 (20)	791 (50)	825 (50)	Dry
Chloride	9/16/2021	mg/L	4760 (1000)	Dry	Dry	-----	1140 (200)	4150 (500)	744 (100)	-----	Dry
Chloride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chloride	3/15/2022	mg/L	12500 (200)	Dry	Dry	Dry	3270 (100)	3770 (100)	1320 (100)	2730 (100)	Dry
Chloride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chloride	9/23/2022	mg/L	15600 (200)	Dry	Dry	Dry	Dry	3530 (50)	-----	485 (50)	11200 (200)
Chloride	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Chloride	5/8/2023	mg/L									
Chloride	9/26/2023	mg/L	15800 (200)	Dry	Dry	Dry	2230 (200)	3630 (200)	2950 (200)	Dry	11100 (200)
Chromium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Chromium	9/4/2018	mg/L	0.00638 (n/a)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Chromium	3/18/2019	mg/L	ND (0.5)	Dry	Dry	-----	0.00913 (n/a)	ND (0.05)	-----	-----	Dry
Chromium	8/27/2019	mg/L	0.00135 (n/a)	Dry	Dry	-----	ND (0.005)	ND (0.005)	-----	-----	Dry
Chromium	3/26/2020	mg/L	ND (0.05)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Chromium	9/1/2020	mg/L	0.0778 (n/a)	Dry	Dry	-----	0.00279 (n/a)	-----	-----	-----	Dry
Chromium	3/18/2021	mg/L	0.0068 (0.005)	Dry	Dry	0.0198 (0.005)	ND (0.005)	ND (0.005)	0.009 (0.005)	ND (0.005)	Dry
Chromium	9/16/2021	mg/L	0.514 (0.005)	Dry	Dry	-----	ND (0.005)	ND (0.005)	ND (0.005)	-----	Dry
Chromium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chromium	3/15/2022	mg/L	2.51 (0.1)	Dry	Dry	Dry	ND (0.005)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Chromium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Chromium	9/23/2022	mg/L	1.25 (0.005)	Dry	Dry	Dry	Dry	ND (0.005)	-----	ND (0.005)	0.00950 (0.005)
Chromium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Chromium	5/8/2023	mg/L									
Chromium	9/26/2023	mg/L	1.03 (0.0500)	Dry	Dry	Dry	ND (0.0500)	ND (0.0500)	ND (0.0500)	Dry	ND (0.0500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Cobalt	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cobalt	9/4/2018	mg/L	0.00134 (n/a)	Dry	Dry	-----	ND (0.025)	0.0187 (n/a)	-----	0.00368 (n/a)	Dry
Cobalt	3/18/2019	mg/L	ND (0.05)	Dry	Dry	-----	0.00313 (n/a)	0.00696 (n/a)	-----	-----	Dry
Cobalt	8/27/2019	mg/L	ND (0.00091)	Dry	Dry	-----	0.000846 (n/a)	0.00418 (n/a)	-----	-----	Dry
Cobalt	3/26/2020	mg/L	ND (0.005)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Cobalt	9/1/2020	mg/L	0.00194 (n/a)	Dry	Dry	-----	0.00101 (n/a)	-----	-----	-----	Dry
Cobalt	3/18/2021	mg/L	ND (0.005)	Dry	Dry	0.0094 (0.005)	ND (0.005)	0.0112 (0.005)	0.0063 (0.005)	0.0067 (0.005)	Dry
Cobalt	9/16/2021	mg/L	ND (0.005)	Dry	Dry	-----	ND (0.005)	0.0445 (0.005)	ND (0.005)	-----	Dry
Cobalt	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cobalt	3/15/2022	mg/L	0.0146 (0.01)	Dry	Dry	Dry	ND (0.005)	0.0288 (0.005)	ND (0.005)	ND (0.005)	Dry
Cobalt	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Cobalt	9/23/2022	mg/L	0.00879 (0.005)	Dry	Dry	Dry	Dry	0.00188 (0.005)	-----	0.00261 (0.0005)	0.00630 (0.0005)
Cobalt	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Cobalt	5/8/2023	mg/L									
Cobalt	9/26/2023	mg/L	0.00896 (0.00500)	Dry	Dry	Dry	ND (0.00500)	0.0136 (0.00500)	0.00747 (0.00500)	Dry	ND (0.00500)
Copper	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Copper	9/4/2018	mg/L	ND (0.005)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Copper	3/18/2019	mg/L	ND (0.5)	Dry	Dry	-----	0.00485 (n/a)	ND (0.05)	-----	-----	Dry
Copper	8/27/2019	mg/L	ND (0.002)	Dry	Dry	-----	ND (0.005)	ND (0.005)	-----	-----	Dry
Copper	3/26/2020	mg/L	ND (0.05)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Copper	9/1/2020	mg/L	0.0197 (n/a)	Dry	Dry	-----	0.0117 (n/a)	-----	-----	-----	Dry
Copper	3/18/2021	mg/L	0.0194 (0.01)	Dry	Dry	0.0333 (0.01)	0.0173 (0.01)	ND (0.01)	0.0128 (0.01)	0.0122 (0.01)	Dry
Copper	9/16/2021	mg/L	0.0615 (0.01)	Dry	Dry	-----	0.0134 (0.01)	ND (0.01)	ND (0.01)	-----	Dry
Copper	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Copper	3/15/2022	mg/L	0.285 (0.1)	Dry	Dry	Dry	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Copper	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Copper	9/23/2022	mg/L	0.0725 (0.005)	Dry	Dry	Dry	Dry	ND (0.005)	-----	0.0102 (0.005)	0.0334 (0.005)
Copper	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Copper	5/8/2023	mg/L									
Copper	9/26/2023	mg/L	0.0797 (0.0500)	Dry	Dry	Dry	ND (0.0500)	ND (0.0500)	ND (0.0500)	Dry	0.0632 (0.0500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Fluoride	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Fluoride	9/4/2018	mg/L	0.181 (n/a)	Dry	Dry	-----	0.698 (n/a)	ND (0.1)	-----	1.47 (n/a)	Dry
Fluoride	3/18/2019	mg/L	ND (0.1)	Dry	Dry	-----	0.678 (n/a)	ND (0.1)	-----	-----	Dry
Fluoride	8/27/2019	mg/L	ND (0.5)	Dry	Dry	-----	ND (0.5)	207 (n/a)	-----	-----	Dry
Fluoride	3/26/2020	mg/L	0.98 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Fluoride	9/1/2020	mg/L	13.1 (n/a)	Dry	Dry	-----	0.30 (n/a)	-----	-----	-----	Dry
Fluoride	3/18/2021	mg/L	0.72 (0.2)	Dry	Dry	0.66 (0.2)	1.10 (0.2)	0.55 (0.2)	0.36 (0.2)	0.24 (0.2)	Dry
Fluoride	9/16/2021	mg/L	4.50 (0.2)	Dry	Dry	-----	0.88 (0.2)	0.31 (0.2)	0.33 (0.2)	-----	Dry
Fluoride	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Fluoride	3/15/2022	mg/L	ND (10)	Dry	Dry	Dry	ND (10)	ND (10)	ND (10)	ND (10)	Dry
Fluoride	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Fluoride	9/23/2022	mg/L	32 (1)	Dry	Dry	Dry	Dry	5.73 (0.1)	-----	ND (0.1)	3.79 (0.1)
Fluoride	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Fluoride	5/8/2023	mg/L									
Fluoride	9/26/2023	mg/L	ND (1.00)	Dry	Dry	Dry	ND (1.00)	1.36 (1.00)	ND (1.00)	Dry	1.57 (1.00)
Lead	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lead	9/4/2018	mg/L	ND (0.0005)	Dry	Dry	-----	0.0938 (n/a)	ND (0.0005)	-----	0.00481 (n/a)	Dry
Lead	3/18/2019	mg/L	ND (0.05)	Dry	Dry	-----	0.103 (n/a)	ND (0.005)	-----	-----	Dry
Lead	8/27/2019	mg/L	ND (0.0027)	Dry	Dry	-----	0.0888 (n/a)	ND (0.0005)	-----	-----	Dry
Lead	3/26/2020	mg/L	ND (0.005)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lead	9/1/2020	mg/L	ND (0.0044)	Dry	Dry	-----	0.132 (n/a)	-----	-----	-----	Dry
Lead	3/18/2021	mg/L	ND (0.01)	Dry	Dry	0.38 (0.01)	0.102 (0.01)	ND (0.01)	0.0115 (0.01)	ND (0.01)	Dry
Lead	9/16/2021	mg/L	ND (0.01)	Dry	Dry	-----	0.108 (0.01)	ND (0.01)	ND (0.01)	-----	Dry
Lead	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lead	3/15/2022	mg/L	ND (0.01)	Dry	Dry	Dry	0.100 (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	Dry
Lead	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lead	9/23/2022	mg/L	ND (0.005)	Dry	Dry	Dry	Dry	0.00127 (0.0005)	-----	0.000531 (0.005)	0.0276 (0.005)
Lead	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Lead	5/8/2023	mg/L									
Lead	9/26/2023	mg/L	ND (0.00500)	Dry	Dry	Dry	0.122 (0.00500)	ND (0.00500)	ND (0.00500)	Dry	ND (0.00500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Lithium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lithium	9/4/2018	mg/L	0.948 (n/a)	Dry	Dry	-----	1.40 (n/a)	0.037 (n/a)	-----	ND (0.04)	Dry
Lithium	3/18/2019	mg/L	6.52 (n/a)	Dry	Dry	-----	0.593 (n/a)	0.23 (n/a)	-----	-----	Dry
Lithium	8/27/2019	mg/L	5.69 (n/a)	Dry	Dry	-----	0.684 (n/a)	0.046 (n/a)	-----	-----	Dry
Lithium	3/26/2020	mg/L	4.81 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Lithium	9/1/2020	mg/L	1.29 (n/a)	Dry	Dry	-----	0.851 (n/a)	-----	-----	-----	Dry
Lithium	3/18/2021	mg/L	0.0622 (0.01)	Dry	Dry	0.308 (0.02)	0.916 (0.01)	0.0339 (0.01)	0.0294 (0.01)	ND (0.01)	Dry
Lithium	9/16/2021	mg/L	0.783 (0.01)	Dry	Dry	-----	1.01 (0.01)	0.0748 (0.01)	0.0423 (0.01)	-----	Dry
Lithium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lithium	3/15/2022	mg/L	2.26 (0.2)	Dry	Dry	Dry	1.46 (0.1)	ND (0.1)	ND (0.1)	ND (0.01)	Dry
Lithium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lithium	9/23/2022	mg/L	2.32 (0.1)	Dry	Dry	Dry	Dry	0.0113 (0.010	-----	0.0280 (0.01)	ND (0.01)
Lithium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Lithium	5/8/2023	mg/L									
Lithium	9/26/2023	mg/L	3.97 (1.00)	Dry	Dry	Dry	3.02 (1.00)	ND (0.100)	ND (0.100)	Dry	0.381 (0.100)
Magnesium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Magnesium	9/4/2018	mg/L	9.09 (n/a)	Dry	Dry	-----	ND (2.5)	73.0 (n/a)	-----	6.56 (n/a)	Dry
Magnesium	3/18/2019	mg/L	ND (5)	Dry	Dry	-----	1.57 (n/a)	86.8 (n/a)	-----	-----	Dry
Magnesium	8/27/2019	mg/L	ND (0.29)	Dry	Dry	-----	0.747 (n/a)	54.9 (n/a)	-----	-----	Dry
Magnesium	3/26/2020	mg/L	ND (5)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Magnesium	9/1/2020	mg/L	0.0726 (n/a)	Dry	Dry	-----	0.236 (n/a)	-----	-----	-----	Dry
Magnesium	3/18/2021	mg/L	12.3 (0.05)	Dry	Dry	43.2 (0.05)	0.553 (0.05)	41.5 (0.05)	108 (0.05)	24.7 (0.05)	Dry
Magnesium	9/16/2021	mg/L	0.673 (0.05)	Dry	Dry	-----	0.199 (0.05)	81.5 (0.05)	71.2 (0.05)	-----	Dry
Magnesium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Magnesium	3/15/2022	mg/L	ND (10)	Dry	Dry	Dry	ND (5)	89.3 (5)	151 (5)	91.5 (5)	Dry
Magnesium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Magnesium	9/23/2022	mg/L	64.2 (5)	Dry	Dry	Dry	Dry	31.3 (0.5)	-----	ND (0.5)	85.3 (5)
Magnesium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Magnesium	5/8/2023	mg/L									
Magnesium	9/26/2023	mg/L	139 (5.00)	Dry	Dry	Dry	ND (5.00)	158 (5.00)	334 (5.00)	Dry	83.2 (5.00)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Manganese	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Manganese	9/4/2018	mg/L	0.302 (n/a)	Dry	Dry	-----	ND (0.5)	10.7 (n/a)	-----	0.782 (n/a)	Dry
Manganese	3/18/2019	mg/L	ND (1)	Dry	Dry	-----	0.252 (n/a)	6.11 (n/a)	-----	-----	Dry
Manganese	8/27/2019	mg/L	ND (0.025)	Dry	Dry	-----	0.173 (n/a)	0.578 (n/a)	-----	-----	Dry
Manganese	3/26/2020	mg/L	ND (0.1)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Manganese	9/1/2020	mg/L	0.00726 (n/a)	Dry	Dry	-----	0.0198 (n/a)	-----	-----	-----	Dry
Manganese	3/18/2021	mg/L	0.284 (0.005)	Dry	Dry	1.05 (0.005)	0.0528 (0.005)	6.13 (0.005)	13.3 (0.005)	3.17 (0.005)	Dry
Manganese	9/16/2021	mg/L	0.0926 (0.005)	Dry	Dry	-----	0.0225 (0.005)	32.2 (0.005)	8.73 (0.005)	-----	Dry
Manganese	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Manganese	3/15/2022	mg/L	ND (0.2)	Dry	Dry	Dry	ND (0.1)	18.4 (0.1)	22.6 (0.1)	5.50 (0.1)	Dry
Manganese	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Manganese	9/23/2022	mg/L	1.22 (0.01)	Dry	Dry	Dry	Dry	2.50 (0.01)	-----	0.0132 (0.01)	2.26 (0.01)
Manganese	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Manganese	5/8/2023	mg/L									
Manganese	9/26/2023	mg/L	0.531 (0.100)	Dry	Dry	Dry	ND (0.100)	8.22 (1.00)	32.2 (1.00)	Dry	0.499 (0.100)
Molybdenum	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Molybdenum	9/4/2018	mg/L	0.0173 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.002)	-----	0.0163 (n/a)	Dry
Molybdenum	3/18/2019	mg/L	ND (0.2)	Dry	Dry	-----	ND (0.005)	ND (0.02)	-----	-----	Dry
Molybdenum	8/27/2019	mg/L	0.0524 (n/a)	Dry	Dry	-----	0.0025 (n/a)	ND (0.002)	-----	-----	Dry
Molybdenum	3/26/2020	mg/L	0.07 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Molybdenum	9/1/2020	mg/L	0.0798 (n/a)	Dry	Dry	-----	0.0131 (n/a)	-----	-----	-----	Dry
Molybdenum	3/18/2021	mg/L	0.0261 (0.02)	Dry	Dry	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Molybdenum	9/16/2021	mg/L	0.121 (0.02)	Dry	Dry	-----	ND (0.02)	0.0389 (0.02)	ND (0.02)	-----	Dry
Molybdenum	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Molybdenum	3/15/2022	mg/L	0.283 (0.04)	Dry	Dry	Dry	0.0241 (0.02)	0.0725 (0.02)	ND (0.02)	ND (0.02)	Dry
Molybdenum	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Molybdenum	9/23/2022	mg/L	0.147 (0.002)	Dry	Dry	Dry	Dry	0.0796 (0.002)	-----	0.0166 (0.002)	0.150 (0.002)
Molybdenum	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Molybdenum	5/8/2023	mg/L									
Molybdenum	9/26/2023	mg/L	0.177 (0.0200)	Dry	Dry	Dry	0.0268 (0.0200)	0.0961 (0.0200)	ND (0.0200)	Dry	0.185 (0.0200)
Nickel	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nickel	9/4/2018	mg/L	0.012 (n/a)	Dry	Dry	-----	ND (0.25)	0.0238 (n/a)	-----	ND (0.02)	Dry
Nickel	3/18/2019	mg/L	ND (0.5)	Dry	Dry	-----	0.0106 (n/a)	ND (0.05)	-----	-----	Dry
Nickel	8/27/2019	mg/L	0.0428 (n/a)	Dry	Dry	-----	ND (0.005)	0.00827 (n/a)	-----	-----	Dry
Nickel	3/26/2020	mg/L	0.0494 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nickel	9/1/2020	mg/L	0.0394 (n/a)	Dry	Dry	-----	0.033 (n/a)	-----	-----	-----	Dry
Nickel	3/18/2021	mg/L	0.0283 (0.005)	Dry	Dry	0.0606 (0.005)	0.0389 (0.005)	0.0133 (0.005)	0.0318 (0.005)	0.0378 (0.005)	Dry
Nickel	9/16/2021	mg/L	0.0538 (0.005)	Dry	Dry	-----	0.0446 (0.005)	0.0928 (0.005)	0.0177 (0.005)	-----	Dry
Nickel	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nickel	3/15/2022	mg/L	ND (0.1)	Dry	Dry	Dry	0.0553 (0.05)	0.0646 (0.05)	ND (0.05)	ND (0.05)	Dry
Nickel	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nickel	9/23/2022	mg/L	0.0527 (0.005)	Dry	Dry	Dry	Dry	0.0160 (0.005)	-----	0.0274 (0.005)	0.0474 (0.005)
Nickel	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Nickel	5/8/2023	mg/L									
Nickel	9/26/2023	mg/L	0.0656 (0.0500)	Dry	Dry	Dry	ND (0.0500)	0.0746 (0.0500)	ND (0.0500)	Dry	0.0647 (0.0500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Nitrate	3/12/2018	mg/L	0.337 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.1)	-----	ND (0.1)	Dry
Nitrate	9/4/2018	mg/L	ND (5)	Dry	Dry	-----	ND (0.1)	890 (n/a)	-----	ND (0.1)	Dry
Nitrate	3/18/2019	mg/L	ND (0.5)	Dry	Dry	-----	ND (0.1)	ND (0.1)	-----	-----	Dry
Nitrate	8/27/2019	mg/L	ND (2.3)	Dry	Dry	-----	ND (0.1)	0.202 (n/a)	-----	-----	Dry
Nitrate	3/26/2020	mg/L	0.148 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nitrate	9/1/2020	mg/L	ND (0.049)	Dry	Dry	-----	ND (0.049)	-----	-----	-----	Dry
Nitrate	3/18/2021	mg/L	ND (0.1)	Dry	Dry	0.47 (0.1)	ND (0.1)	0.12 (0.1)	ND (0.1)	0.13 (0.1)	Dry
Nitrate	9/16/2021	mg/L	0.17 (0.1)	Dry	Dry	-----	ND (0.1)	4.50 (0.1)	0.23 (0.1)	-----	Dry
Nitrate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrate	3/15/2022	mg/L	7.16 (0.5)	Dry	Dry	Dry	ND (10)	1.83 (0.1)	ND (0.1)	1.35 (0.1)	Dry
Nitrate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrate	9/23/2022	mg/L	5.86 (1)	Dry	Dry	Dry	Dry	0.904 (0.1)	-----	ND (0.1)	0.719 (0.1)
Nitrate	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Nitrate	5/8/2023	mg/L									
Nitrate	9/26/2023	mg/L	ND (1.00)	Dry	Dry	Dry	ND (1.00)	ND (1.00)	ND (1.00)	Dry	ND (1.00)
Nitrite	3/26/2020	mg/L	ND (0.039)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Nitrite	9/1/2020	mg/L	0.814 (n/a)	Dry	Dry	-----	ND (0.195)	-----	-----		Dry
Nitrite	3/18/2021	mg/L	0.31 (0.1)	Dry	Dry	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	Dry
Nitrite	9/16/2021	mg/L	ND (0.1)	Dry	Dry	-----	ND (0.1)	ND (0.1)	ND (0.1)	-----	Dry
Nitrite	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrite	3/15/2022	mg/L	ND (10)	Dry	Dry	Dry	ND (10)	ND (10)	ND (0.1)	ND (10)	Dry
Nitrite	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nitrite	9/23/2022	mg/L	1.71 (1)	Dry	Dry	Dry	Dry	ND (5)	-----	ND (0.1)	ND (20)
Nitrite	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Nitrite	5/8/2023	mg/L									
Nitrite	9/26/2023	mg/L	ND (1.00)	Dry	Dry	Dry	ND (1.00)	ND (1.00)	ND (1.00)	Dry	ND (1.00)
Phosphorus	3/12/2018	mg/L	ND (0.1)	Dry	Dry	-----	ND (0.1)	ND (0.1)	-----	1.09 (n/a)	Dry
Phosphorus	9/4/2018	mg/L	0.309 (n/a)	Dry	Dry	-----	ND (0.1)	ND (0.02)	-----	1.09 (n/a)	Dry
Phosphorus	3/18/2019	mg/L	0.249 (n/a)	Dry	Dry	-----	0.564 (n/a)	ND (0.1)	-----	-----	Dry
Phosphorus	8/27/2019	mg/L	0.147 (n/a)	Dry	Dry	-----	0.179 (n/a)	ND (0.1)	-----	-----	Dry
Phosphorus	3/26/2020	mg/L	0.102 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Phosphorus	9/1/2020	mg/L	0.0593 (n/a)	Dry	Dry	-----	ND (0.039)	-----	-----	-----	Dry
Phosphorus	3/18/2021	mg/L	ND (0.1)	Dry	Dry	0.32 (0.1)	ND (0.1)	0.15 (0.1)	0.22 (0.1)	0.25 (0.1)	Dry
Phosphorus	9/16/2021	mg/L	ND (0.1)	Dry	Dry	-----	ND (0.1)	0.51 (0.1)	ND (0.1)	-----	Dry
Phosphorus	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Phosphorus	3/15/2022	mg/L	6.73 (0.1)	Dry	Dry	Dry	ND (0.1)	1.85 (0.1)	ND (0.1)	0.673 (0.1)	Dry
Phosphorus	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Phosphorus	9/23/2022	mg/L	2.78 (0.1)	Dry	Dry	Dry	Dry	4.15 (0.1)	-----	0.101 (0.1)	5.92 (0.1)
Phosphorus	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Phosphorus	5/8/2023	mg/L									
Phosphorus	9/26/2023	mg/L	ND (0.500)	Dry	Dry	Dry	ND (1.00)	2.06 (0.100)	ND (0.100)	Dry	3.99 (0.100)
Potassium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Potassium	9/4/2018	mg/L	2440 (n/a)	Dry	Dry	-----	1410 (n/a)	221 (n/a)	-----	104 (n/a)	Dry
Potassium	3/18/2019	mg/L	17100 (n/a)	Dry	Dry	-----	233 (n/a)	853 (n/a)	-----	-----	Dry
Potassium	8/27/2019	mg/L	14200 (n/a)	Dry	Dry	-----	256 (n/a)	273 (n/a)	-----	-----	Dry
Potassium	3/26/2020	mg/L	15700 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Potassium	9/1/2020	mg/L	6630 (n/a)	Dry	Dry	-----	2660 (n/a)	-----	-----	-----	Dry
Potassium	3/18/2021	mg/L	864 (0.5)	Dry	Dry	185 (0.5)	2230 (1.5)	244 (0.5)	269 (0.5)	270 (0.5)	Dry

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Potassium	9/16/2021	mg/L	9870 (5)	Dry	Dry	-----	3130 (5)	5240 (5)	719 (0.5)	-----	Dry
Potassium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Potassium	3/15/2022	mg/L	16200 (250)	Dry	Dry	Dry	4440 (50)	4440 (50)	510 (5)	2180 (50)	Dry
Potassium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Potassium	9/23/2022	mg/L	18200 (500)	Dry	Dry	Dry	Dry	4730 (50)	-----	1070 (50)	15100 (500)
Potassium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Potassium	5/8/2023	mg/L									
Potassium	9/26/2023	mg/L	21600 (500)	Dry	Dry	Dry	6430 (50.0)	7740 (50.0)	1360 (50.0)	Dry	31800 (500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Selenium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Selenium	9/4/2018	mg/L	0.059 (n/a)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Selenium	3/18/2019	mg/L	ND (0.5)	Dry	Dry	-----	0.00494 (n/a)	ND (0.05)	-----	-----	Dry
Selenium	8/27/2019	mg/L	0.198 (n/a)	Dry	Dry	-----	ND (0.005)	0.00597 (n/a)	-----	-----	Dry
Selenium	3/26/2020	mg/L	0.203 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Selenium	9/1/2020	mg/L	0.511 (n/a)	Dry	Dry	-----	0.0168 (n/a)	-----	-----	-----	Dry
Selenium	3/18/2021	mg/L	0.0661 (0.015)	Dry	Dry	ND (0.03)	ND (0.015)	ND (0.015)	ND (0.015)	ND (0.015)	Dry
Selenium	9/16/2021	mg/L	1.00 (0.015)	Dry	Dry	-----	0.039 (0.015)	ND (0.015)	ND (0.015)	-----	Dry
Selenium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Selenium	3/15/2022	mg/L	1.53 (0.1)	Dry	Dry	Dry	0.0502 (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Selenium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Selenium	9/23/2022	mg/L	0.834 (0.05)	Dry	Dry	Dry	Dry	0.00608 (0.005)	-----	0.273 (0.005)	0.0411 (0.005)
Selenium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Selenium	5/8/2023	mg/L									
Selenium	9/26/2023	mg/L	0.763 (0.500)	Dry	Dry	Dry	0.0721 (0.0500)	0.719 (0.0500)	ND (0.0500)	Dry	ND (0.0500)
Silver	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Silver	9/4/2018	mg/L	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Silver	3/18/2019	mg/L	ND (0.1)	Dry	Dry	-----	ND (0.0005)	ND (0.001)	-----	-----	Dry
Silver	8/27/2019	mg/L	ND (0.0037)	Dry	Dry	-----	ND (0.001)	ND (0.001)	-----	-----	Dry
Silver	3/26/2020	mg/L	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Silver	9/1/2020	mg/L	ND (0.0037)	Dry	Dry	-----	ND (0.00037)	-----	-----	-----	Dry
Silver	3/18/2021	mg/L	ND (0.007)	Dry	Dry	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	ND (0.007)	Dry
Silver	9/16/2021	mg/L	ND (0.007)	Dry	Dry	-----	ND (0.007)	ND (0.007)	ND (0.007)	-----	Dry
Silver	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Silver	3/15/2022	mg/L	ND (0.02)	Dry	Dry	Dry	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	Dry
Silver	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Silver	9/23/2022	mg/L	ND (0.01)	Dry	Dry	Dry	Dry	ND (0.001)	-----	ND (0.001)	ND (0.01)
Silver	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Silver	5/8/2023	mg/L									
Silver	9/26/2023	mg/L	ND (0.0100)	Dry	Dry	Dry	ND (0.0100)	ND (0.0100)	ND (0.0100)	Dry	ND (0.0100)
Sodium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----		-----	-----	Dry
Sodium	9/4/2018	mg/L	111 (n/a)	Dry	Dry	-----	55.6 (n/a)	53.6 (n/a)	-----	7.42 (n/a)	Dry
Sodium	3/18/2019	mg/L	814 (n/a)	Dry	Dry	-----	20.6 (n/a)	71.3 (n/a)	-----	-----	Dry
Sodium	8/27/2019	mg/L	580 (n/a)	Dry	Dry	-----	29.9 (n/a)	28.0 (n/a)	-----	-----	Dry
Sodium	3/26/2020	mg/L	694 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Sodium	9/1/2020	mg/L	470 (n/a)	Dry	Dry	-----	162 (n/a)	-----	-----	-----	Dry
Sodium	3/18/2021	mg/L	77.4 (0.5)	Dry	Dry	11.7 (0.5)	107 (0.5)	21.7 (0.5)	86.7 (0.5)	60.5 (0.5)	Dry
Sodium	9/16/2021	mg/L	527 (5)	Dry	Dry	-----	125 (0.5)	603 (5)	67.1 (0.5)	-----	Dry
Sodium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sodium	3/15/2022	mg/L	1480 (20)	Dry	Dry	Dry	193 (10)	583 (10)	127 (10)	253 (10)	Dry
Sodium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sodium	9/23/2022	mg/L	1190 (10)	Dry	Dry	Dry	Dry	388 (10)	-----	97.9 (1)	1090 (10)
Sodium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Sodium	5/8/2023	mg/L									
Sodium	9/26/2023	mg/L	1850 (10.0)	Dry	Dry	Dry	70 (10.0)	560 (10.0)	308 (10.0)	Dry	1410 (10.0)
Sulfate	3/12/2018	mg/L	1270 (n/a)	Dry	Dry	-----	873 (n/a)	873 (n/a)	-----	79.0 (n/a)	Dry
Sulfate	9/4/2018	mg/L	7790 (n/a)	Dry	Dry	-----	873 (n/a)	ND (0.005)	-----	79.0 (n/a)	Dry
Sulfate	3/18/2019	mg/L	580 (n/a)	Dry	Dry	-----	244 (n/a)	890 (n/a)	-----	-----	Dry

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Sulfate	8/27/2019	mg/L	5160 (n/a)	Dry	Dry	-----	186 (n/a)	725 (n/a)	-----	-----	Dry
Sulfate	3/26/2020	mg/L	746 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Sulfate	9/1/2020	mg/L	2650 (n/a)	Dry	Dry	-----	379 (n/a)	-----	-----	-----	Dry
Sulfate	3/18/2021	mg/L	428 (50)	Dry	Dry	376 (50)	461 (50)	479 (50)	681 (50)	222 (50)	Dry
Sulfate	9/16/2021	mg/L	3700 (1000)	Dry	Dry	-----	823 (200)	2020 (500)	506 (100)	-----	Dry
Sulfate	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sulfate	3/15/2022	mg/L	7510 (200)	Dry	Dry	Dry	2380 (100)	1750 (100)	589 (100)	904 (100)	Dry
Sulfate	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sulfate	9/23/2022	mg/L	9230 (200)	Dry	Dry	Dry	Dry	2280 (50)	-----	185 (50)	10700 (200)
Sulfate	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Sulfate	5/8/2023	mg/L									
Sulfate	9/26/2023	mg/L	10200 (200)	Dry	Dry	Dry	3310 (200)	3280 (200)	1540 (200)	Dry	11200 (200)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Thallium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Thallium	9/4/2018	mg/L	ND (0.001)	Dry	Dry	-----	ND (0.05)	ND (0.001)	-----	ND (0.004)	Dry
Thallium	3/18/2019	mg/L	ND (0.1)	Dry	Dry	-----	0.00825 (n/a)	ND (0.01)	-----	-----	Dry
Thallium	8/27/2019	mg/L	ND (0.0027)	Dry	Dry	-----	0.00603 (n/a)	ND (0.001)	-----	-----	Dry
Thallium	3/26/2020	mg/L	ND (0.01)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Thallium	9/1/2020	mg/L	ND (0.00104)	Dry	Dry	-----	0.0146 (n/a)	-----	-----	-----	Dry
Thallium	3/18/2021	mg/L	ND (0.02)	Dry	Dry	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	Dry
Thallium	9/16/2021	mg/L	ND (0.02)	Dry	Dry	-----	ND (0.02)	ND (0.02)	ND (0.02)	-----	Dry
Thallium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Thallium	3/15/2022	mg/L	ND (0.02)	Dry	Dry	Dry	0.0179 (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	Dry
Thallium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Thallium	9/23/2022	mg/L	ND (0.01)	Dry	Dry	Dry	Dry	ND (0.001)	-----	ND (0.001)	ND (0.01)
Thallium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Thallium	5/8/2023	mg/L									
Thallium	9/26/2023	mg/L	ND (0.0100)	Dry	Dry	Dry	0.0102 (0.0100)	ND (0.0100)	ND (0.0100)	Dry	ND (0.0100)
Total Dissolved Solids	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Total Dissolved Solids	9/4/2018	mg/L	5600 (n/a)	Dry	Dry	-----	3880 (n/a)	2640 (n/a)	-----	342 (n/a)	Dry
Total Dissolved Solids	3/18/2019	mg/L	39700 (n/a)	Dry	Dry	-----	2470 (n/a)	3380 (n/a)	-----	-----	Dry
Total Dissolved Solids	8/27/2019	mg/L	27000 (n/a)	Dry	Dry	-----	2760 (n/a)	1690 (n/a)	-----	-----	Dry
Total Dissolved Solids	3/26/2020	mg/L	37000 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Total Dissolved Solids	9/1/2020	mg/L	16100 (n/a)	Dry	Dry	-----	7340 (n/a)	-----	-----	-----	Dry
Total Dissolved Solids	3/18/2021	mg/L	2470 (66.7)	Dry	Dry	2270 (143)	7050 (500)	2800 (1000)	2880 (100)	2070 (66.7)	Dry
Total Dissolved Solids	9/16/2021	mg/L	23200 (2000)	Dry	Dry		8450 (500)	9180 (250)	2990 (66.7)	-----	Dry
Total Dissolved Solids	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	3/15/2022	mg/L	40700 (2500)	Dry	Dry	Dry	9980 (500)	10700 (250)	2880 (500)	5570 (250)	Dry
Total Dissolved Solids	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Dissolved Solids	9/23/2022	mg/L	54900 (2500)	Dry	Dry	Dry	Dry	11400 (250)	-----	195 (250)	44400 (2500)
Total Dissolved Solids	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Total Dissolved Solids	5/8/2023	mg/L									
Total Dissolved Solids	9/26/2023	mg/L	63200 (2500)	Dry	Dry	Dry	14900 (2500)	13800 (2500)	5500 (2500)	D	40700 (2500)
Vanadium	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Vanadium	9/4/2018	mg/L	0.00846 (n/a)	Dry	Dry	-----	ND (0.25)	ND (0.005)	-----	ND (0.02)	Dry
Vanadium	3/18/2019	mg/L	ND (0.5)	Dry	Dry	-----	0.0057 (n/a)	ND (0.05)	-----	-----	Dry
Vanadium	8/27/2019	mg/L	0.0294 (n/a)	Dry	Dry	-----	ND (0.005)	ND (0.005)	-----	-----	Dry
Vanadium	3/26/2020	mg/L	0.0378 (n/a)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Vanadium	9/1/2020	mg/L	0.124 (n/a)	Dry	Dry	-----	ND (0.00085)	-----	-----	-----	Dry
Vanadium	3/18/2021	mg/L	0.0413 (0.01)	Dry	Dry	0.016 (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	Dry
Vanadium	9/16/2021	mg/L	0.226 (0.01)	Dry	Dry		ND (0.01)	ND (0.1)	ND (0.01)	-----	Dry
Vanadium	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vanadium	3/15/2022	mg/L	0.493 (0.1)	Dry	Dry	Dry	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Vanadium	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vanadium	9/23/2022	mg/L	0.0657 (0.005)	Dry	Dry	Dry	Dry	0.0236 (0.005)	-----	0.00978 (0.005)	0.0221 (0.005)
Vanadium	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Vanadium	5/8/2023	mg/L									
Vanadium	9/26/2023	mg/L	0.0652 (0.0500)	Dry	Dry	Dry	ND (0.0500)	0.347 (0.0500)	ND (0.0500)	D	ND (0.0500)

Table 9
Analytical Summary Data

Constituent	Sample Date	Units	L-Sump	MW-9	MW-10	UL-1	LL-1	UL-2/UL-2R	LL-2	UL-3	LL-3
Zinc	3/12/2018	mg/L	-----	Dry	Dry	-----	-----	-----	-----	-----	Dry
Zinc	9/4/2018	mg/L	ND (0.02)	Dry	Dry	-----	ND (1)	ND (0.02)	-----	ND (0.08)	Dry
Zinc	3/18/2019	mg/L	ND (2)	Dry	Dry	-----	0.0408 (n/a)	ND (0.2)	-----	-----	Dry
Zinc	8/27/2019	mg/L	ND (0.1)	Dry	Dry	-----	0.0214 (n/a)	ND (0.02)	-----	-----	Dry
Zinc	3/26/2020	mg/L	ND (0.2)	Dry	Dry	-----	-----	-----	-----	-----	Dry
Zinc	9/1/2020	mg/L	ND (0.01)	Dry	Dry	-----	ND (0.01)	-----	-----	-----	Dry
Zinc	3/18/2021	mg/L	ND (0.05)	Dry	Dry	0.0834 (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	Dry
Zinc	9/16/2021	mg/L	ND (0.05)	Dry	Dry		ND (0.05)	ND (0.05)	ND (0.05)	-----	Dry
Zinc	10/8/2021	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Zinc	3/15/2022	mg/L	ND (0.4)	Dry	Dry	Dry	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	Dry
Zinc	4/19/2022	mg/L	-----	-----	-----	-----	-----	-----	-----	-----	-----
Zinc	9/23/2022	mg/L	ND (0.0200)	Dry	Dry	Dry	Dry	0.0277 (0.02)	-----	ND (0.02)	6.04 (0.200)
Zinc	3/20/2023	mg/L	-----	-----	-----	Dry	-----	-----	-----	-----	-----
Zinc	5/8/2023	mg/L									
Zinc	9/26/2023	mg/L	ND (0.200)	Dry	Dry	Dry	ND (0.200)	ND (0.200)	ND (0.200)	Dry	0.345 (0.200)

Notes:
mg/L - milligrams per Liter
ug/L - micrograms per Liter
umhos/cm - microhos per centimeter
n/a - not applicable
SU - standard unit
ND = non detect
(10) - detection limit

Table 10
Historic SSI and SSL since January 1, 2018
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well	Constituent	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025
This table will be populated starting with the 2024 AWQR or as appropriate based on site statistical analysis									

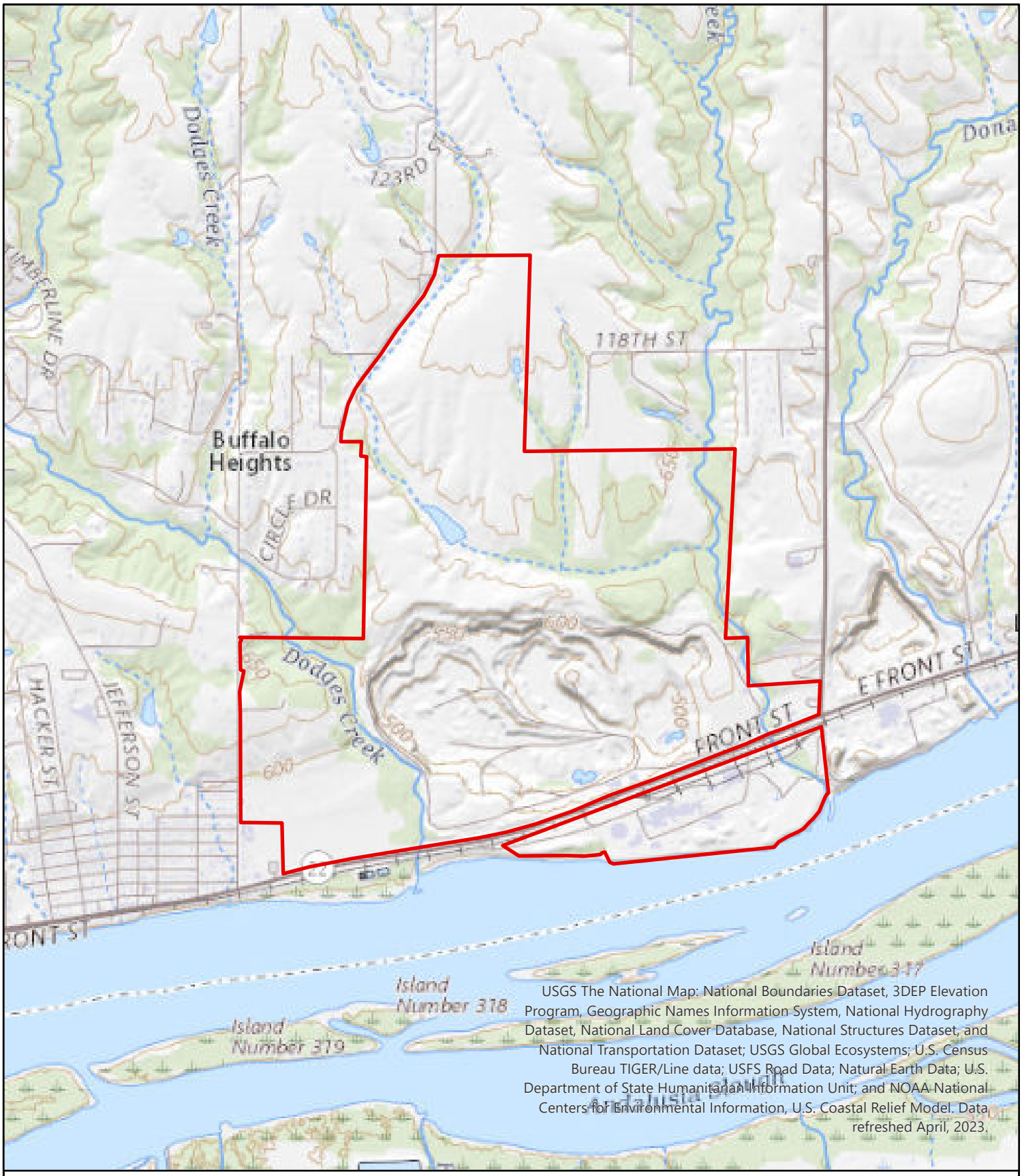
Table 11
Corrective Action Trend Analysis
Continental Cement Monofill
Permit Number 82-SDP-16-97P

Well	Parameter	Current SSL	Trend	N	Projected Year to Completion
MW-2A	Lithium	Yes		12	
MW-1A	Lithium	Yes		12	
MW-4	Arsenic	Yes	Decreasing	12	
MW-4	Lithium	Yes	Decreasing	12	
MW-4	Molybdenum	Yes		12	
MW-5	Lithium	Yes	Increasing	12	
MW-5	Manganese	Yes		12	
MW-5	Thallium	No		12	
MW-12	Cobalt	No		12	
MW-12	Lithium	No		12	
MW-12	Manganese	Yes		12	
MW-12	Thallium	No		12	
MW-13	Lithium	Yes		11	
MW-13	Manganese	Yes		12	
MW-14	Cobalt	Yes		12	
MW-14	Molybdenum	Yes		12	
MW-15	Lithium	Yes		12	
MW-16	Lithium	Yes	Increasing	12	
MW-18	Arsenic	No		12	
MW-18	Lithium	Yes	Increasing	12	
MW-18	Molybdenum	Yes		12	
MW-3L	Lithium	Yes		12	
MW-4L	Lithium	Yes		12	
MW-4L	Molybdenum	Yes		12	
MW-7	Lithium	Yes		12	
MW-16L	Lithium	Yes		12	
MW-19	Cobalt	Yes		12	
MW-19	Lithium	Yes		12	
MW-20	Lithium	Yes		5	
MW-21	Lithium	Yes		5	

FIGURES

CONTINENTAL ANNUAL WATER QUALITY REPORT

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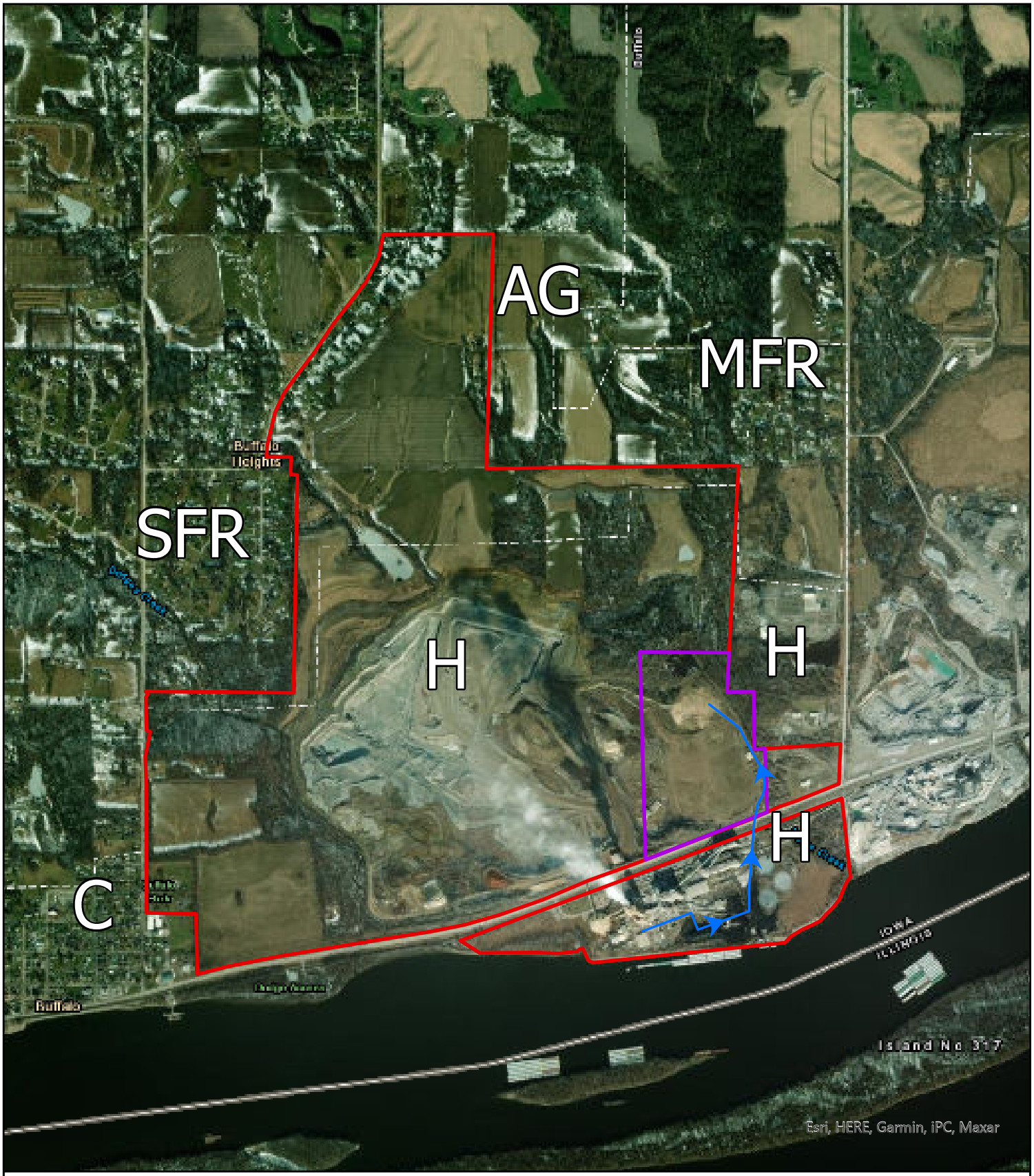
Property Boundary

N

0 2,500 5,000 Feet

FIGURE 1	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Site Topographic Vicinity Map PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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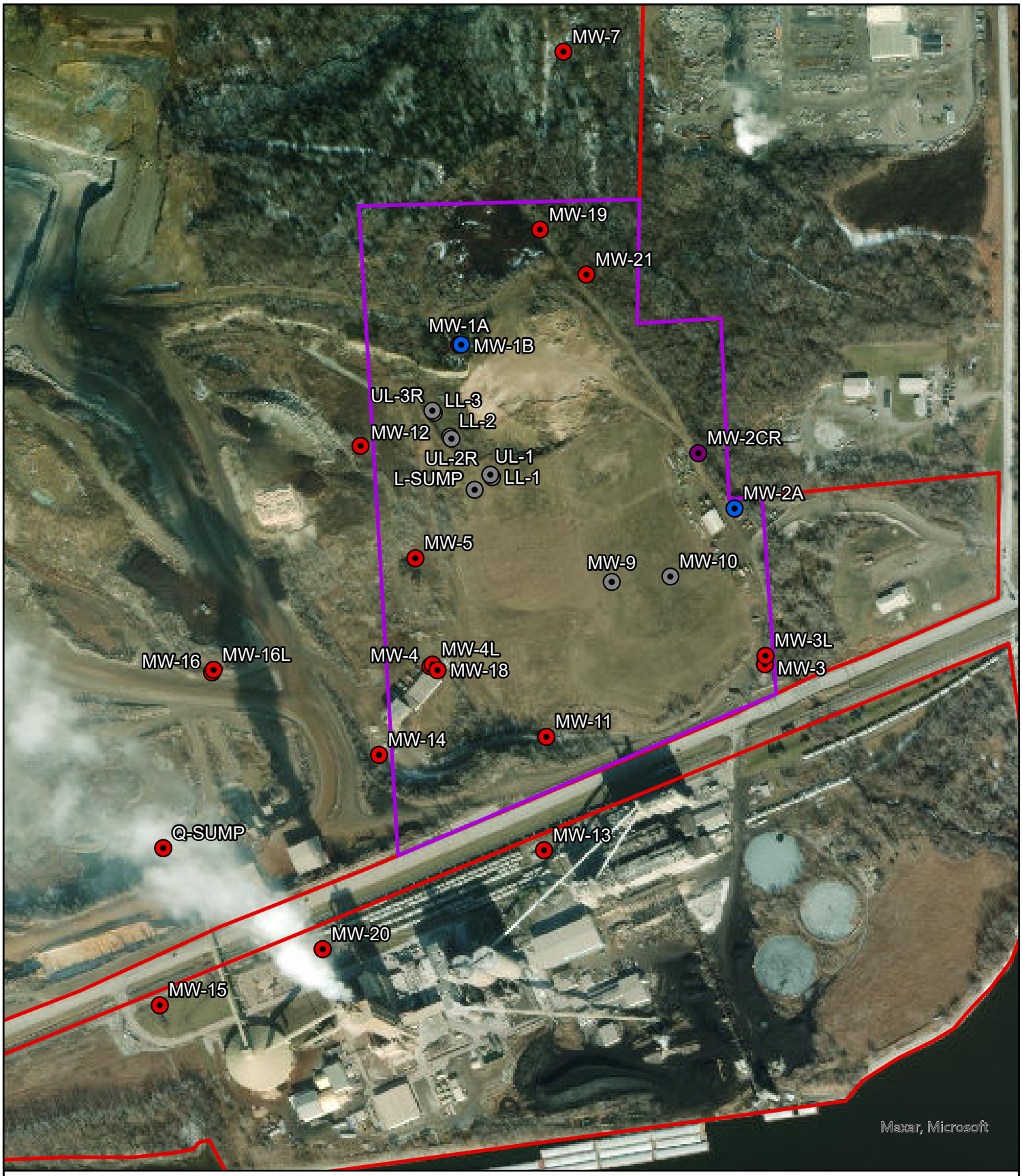
H - Heavy Industrial
C - Two Family
AG - Agricultural - General
Property Boundary
MFR - Multi-Family Residence
SFR - Single-Family Residence
Haul Route
Landfill Boundary

N

0 2,500 5,000 Feet

FIGURE 2A	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Site Plan	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:		PROJECT NAME: Continental Cement Landfill	
	Drawn By: TS	Rev.:		PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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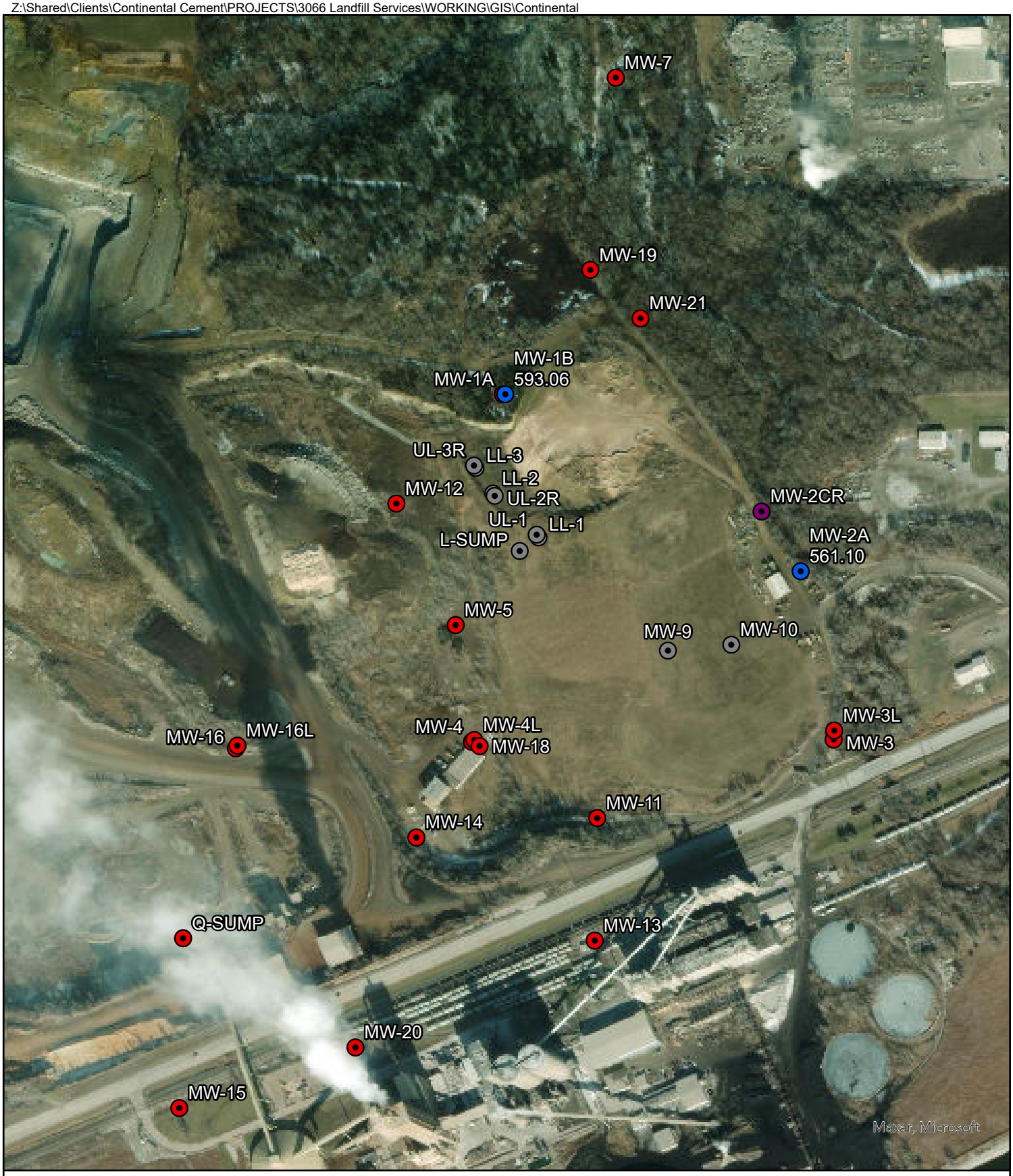
Shallow
Deep
Leachate
Stope
Landfill Boundary
Property Boundary

N

0 500 1,000 Feet

FIGURE 2B	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Monitoring Locations PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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Shallow
Deep
Stope
Leachate
Groundwater Contour
Flow Direction

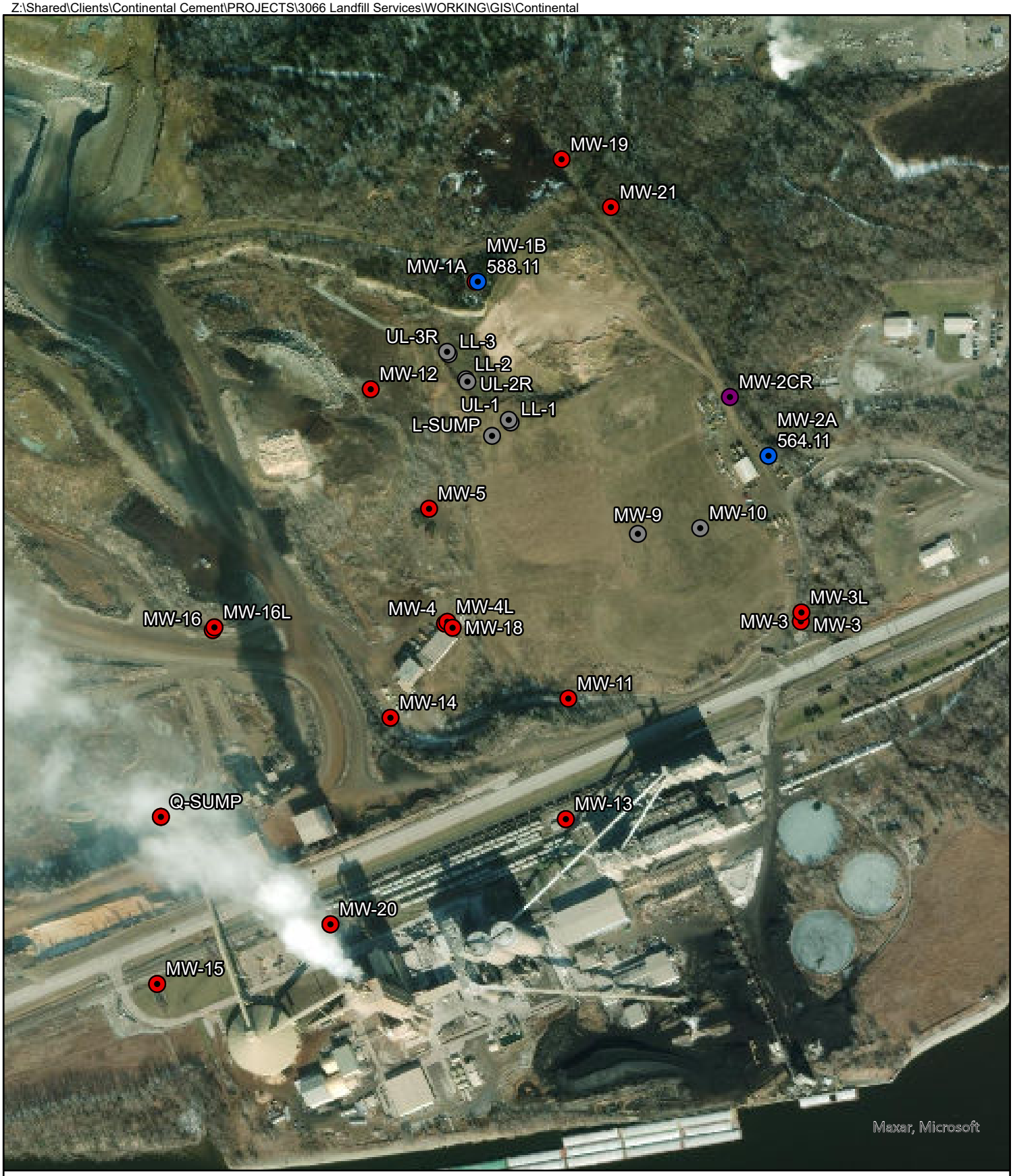
NM - Not Measured
NU - Not Used

N

0 500 1,000 US Feet

FIGURE 3A	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Shallow Zone Groundwater March 2023 Contour Map	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:		PROJECT NAME: Continental Cement Landfill	
	Drawn By: TS	Rev.:		PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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Shallow
Deep
Stope
Leachate
Groundwater Contour
Flow Direction

NM - Not Measured
NU - Not Used

N

0 500 1,000 US Feet

FIGURE 3B	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Shallow Zone Groundwater September 2023 Contour Map PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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Shallow
Deep
Stope
Leachate
Groundwater Contour
Flow Direction

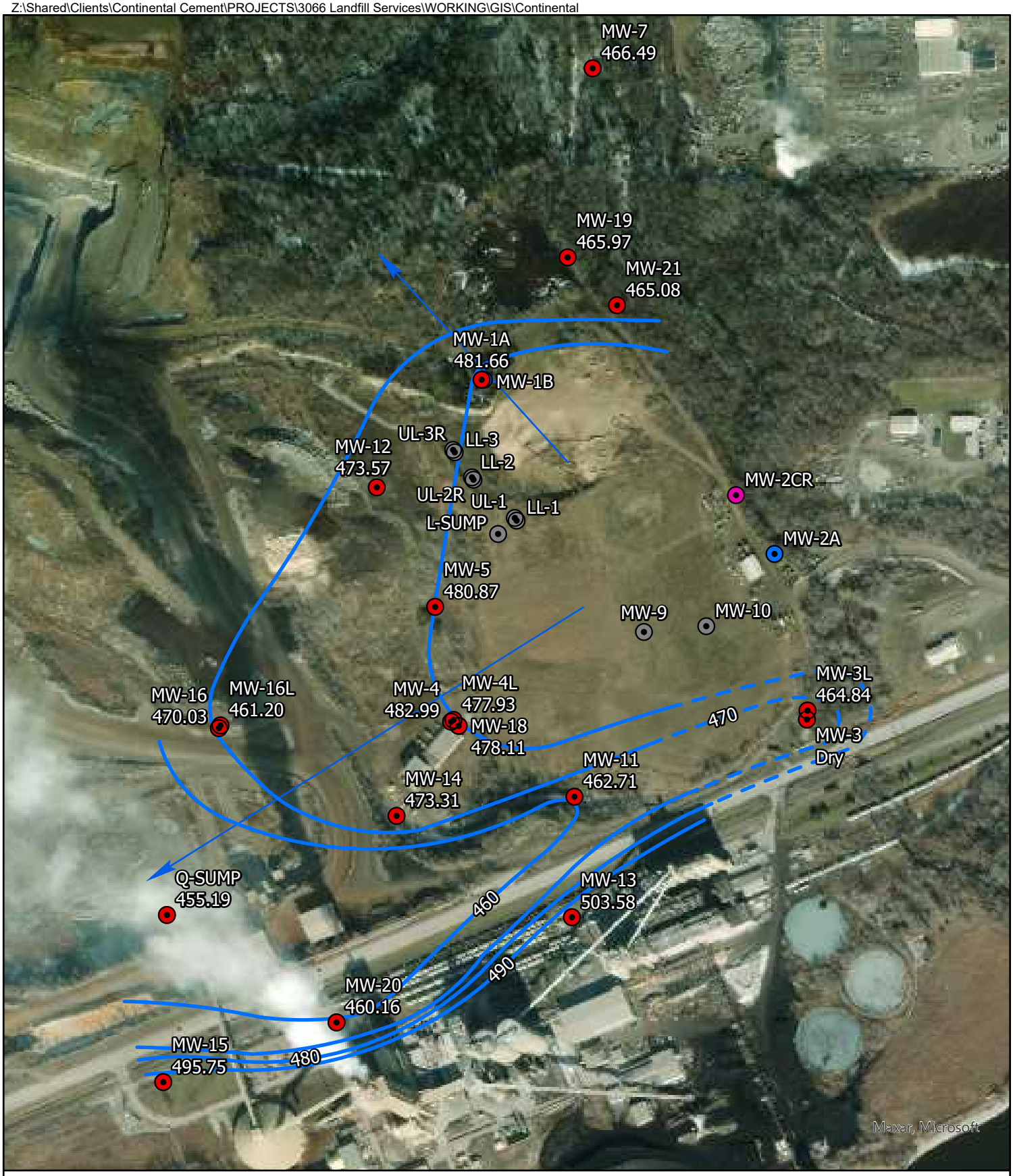
NM - Not Measured
NU - Not Used

N

0 500 1,000 US Feet

FIGURE 4A			CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME Deep Zone Groundwater March 2023 Contour Map PROJECT NAME Continental Cement Landfill PROJECT LOCATION 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Project Mgr. KB	Date: 11/2023			
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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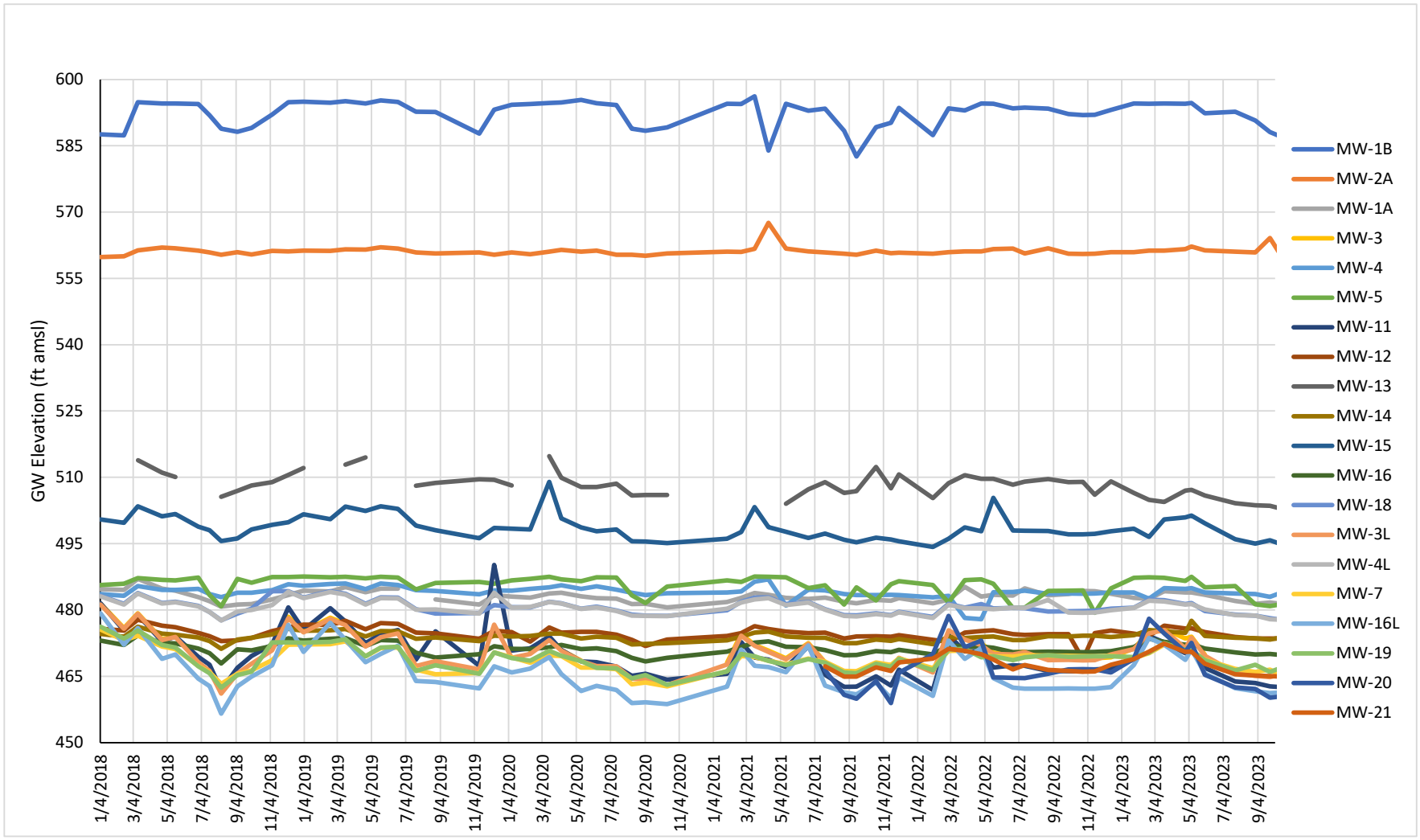
Shallow
Deep
Stope
Leachate
Groundwater Contour
Flow Direction

NM - Not Measured
NU - Not Used

N

0 500 1,000 US Feet

FIGURE 4B	Project Mgr. KB	Date: 11/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Deep Zone Groundwater September 2023 Contour Map PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			



FIGURE

5

Sheet Name:

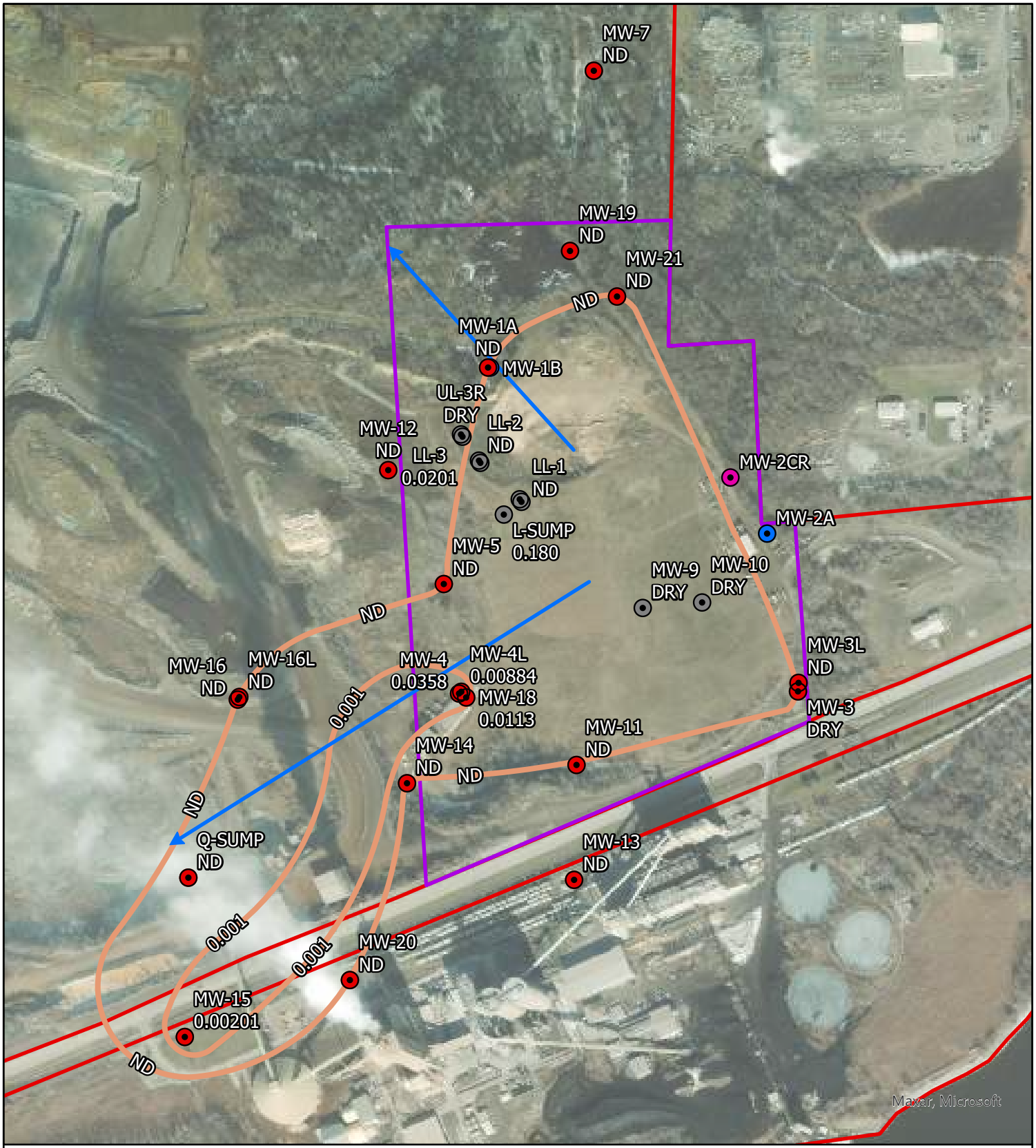
Hydrograph

Project Mgr.	KB	Job No.:	3433
Drawn By:	TS	Date:	11/1/2023
Checked By:	LJ	Rev:	

Continental Cement
Buffalo, Iowa
301 East Front Street Buffalo, Iowa

BLACKSTONE ENVIRONMENTAL

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Lysimeter
Shallow
Deep
Stope

Groundwater Flow Direction
Arsenic Contours
Zoning
Property Boundary

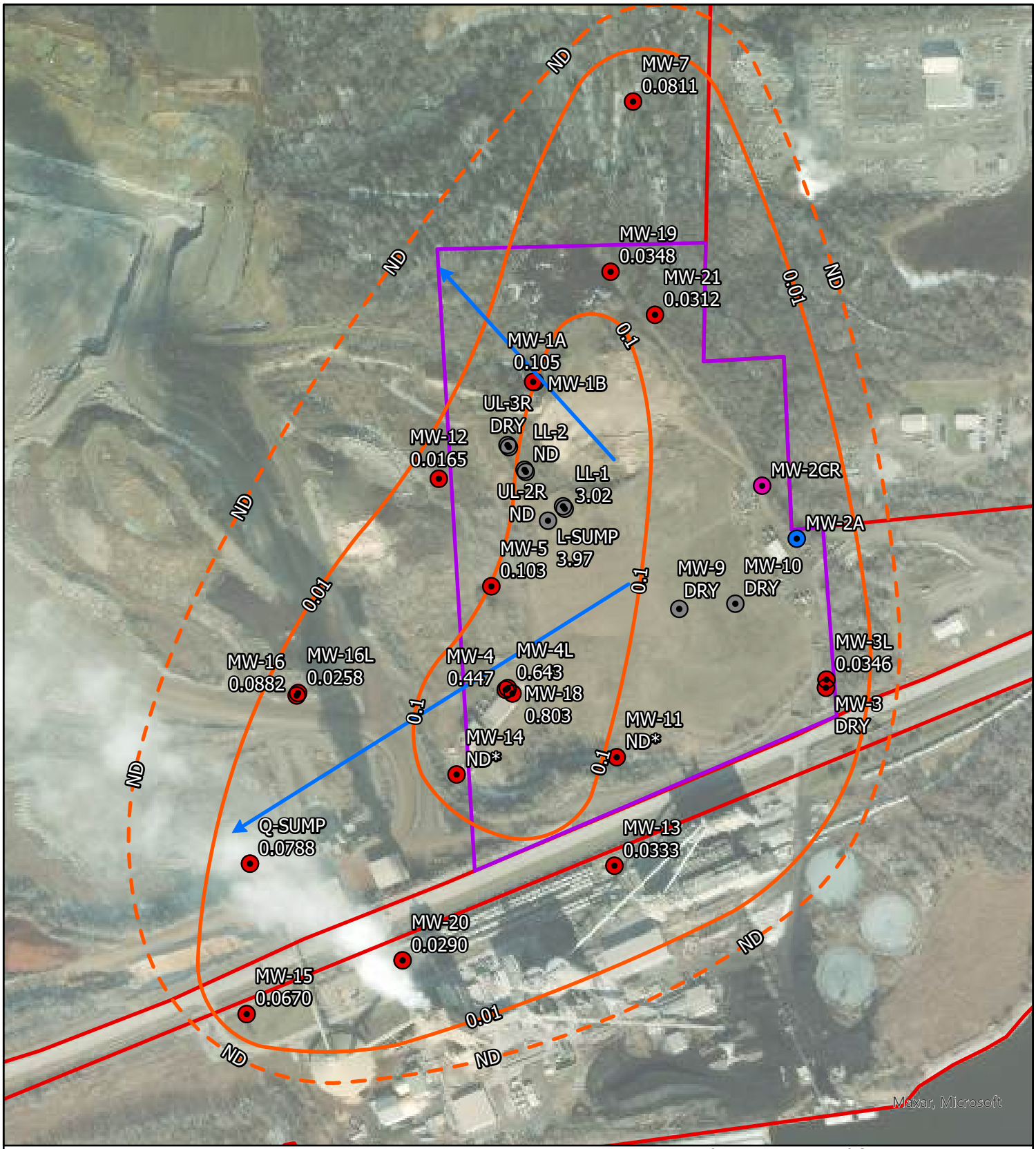
Lysimeter Points and Sumps not used for contouring
Concentrations in mg/L

0 500 1,000 Feet

N

FIGURE 6	Project Mgr. KB	Date: 11/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Arsenic Isocontour Map September 2023 PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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Lysimeter
Shallow
Deep
Stope
Groundwater Flow Direction
Lithium Contours
Zoning
Property Boundary

Lysimeter Points and Sumps not used for contouring
Concentrations in mg/L
Note - MW-11 and MW-14 were not used for contouring due to lab issues

0 500 1,000 Feet

N

FIGURE 7

Project Mgr. KB	Date: 11/2023
Designed By: TS	Rev.:
Drawn By: TS	Rev.:
Checked By: LJ	Rev.:
Job No.: 3433	Rev.:

CONTINENTAL CEMENT

BUFFALO, IOWA

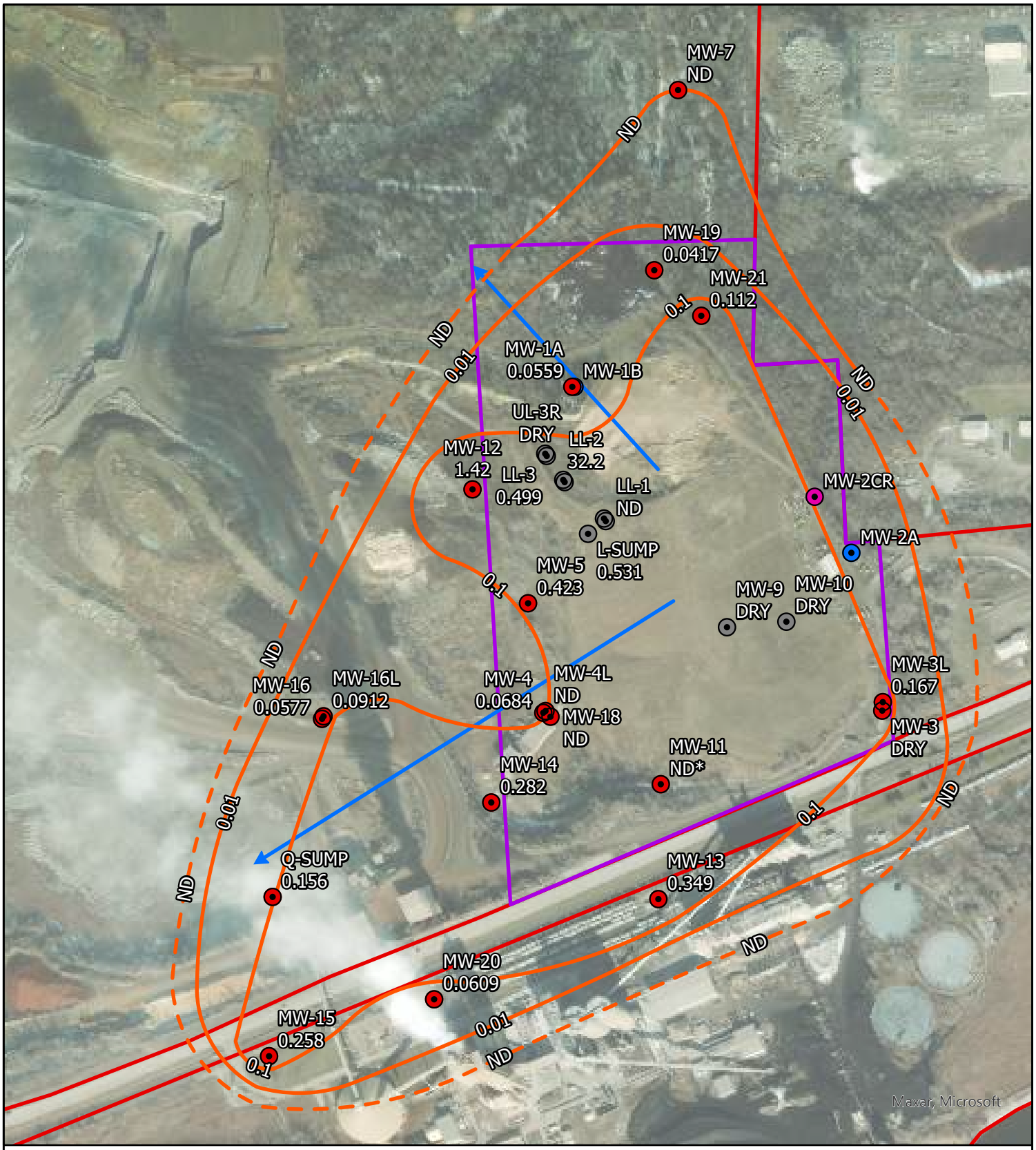
SHEET NAME
Lithium Isocontour Map September 2023

PROJECT NAME
Continental Cement Landfill

PROJECT LOCATION
301 East Front Street, Buffalo, Iowa

BLACKSTONE ENVIRONMENTAL

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Lysimeter
Shallow
Deep
Stope

Groundwater Flow Direction
Manganese Contours
Zoning
Property Boundary

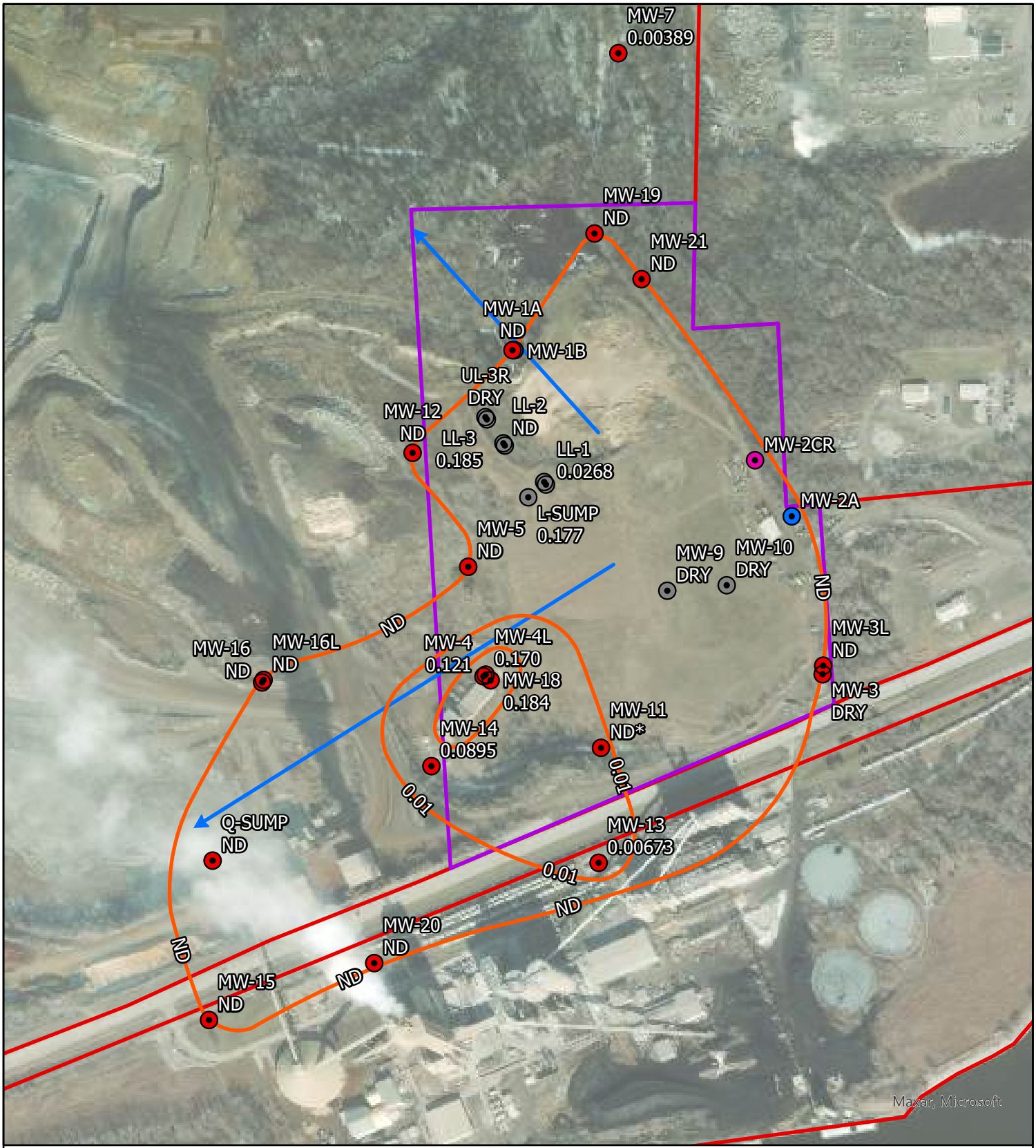
Lysimeter Points and Sumps not used for contouring
Concentrations in mg/L
Note - MW-11, MW-4L, and MW-18 were not used for contouring

0 500 1,000 Feet

N

FIGURE 8	Project Mgr. KB	Date: 11/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Manganese Isocontour Map September 2023 PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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Lysimeter
Shallow
Deep
Stope
Groundwater Flow Direction
Molybdenum Contours
Zoning
Property Boundary

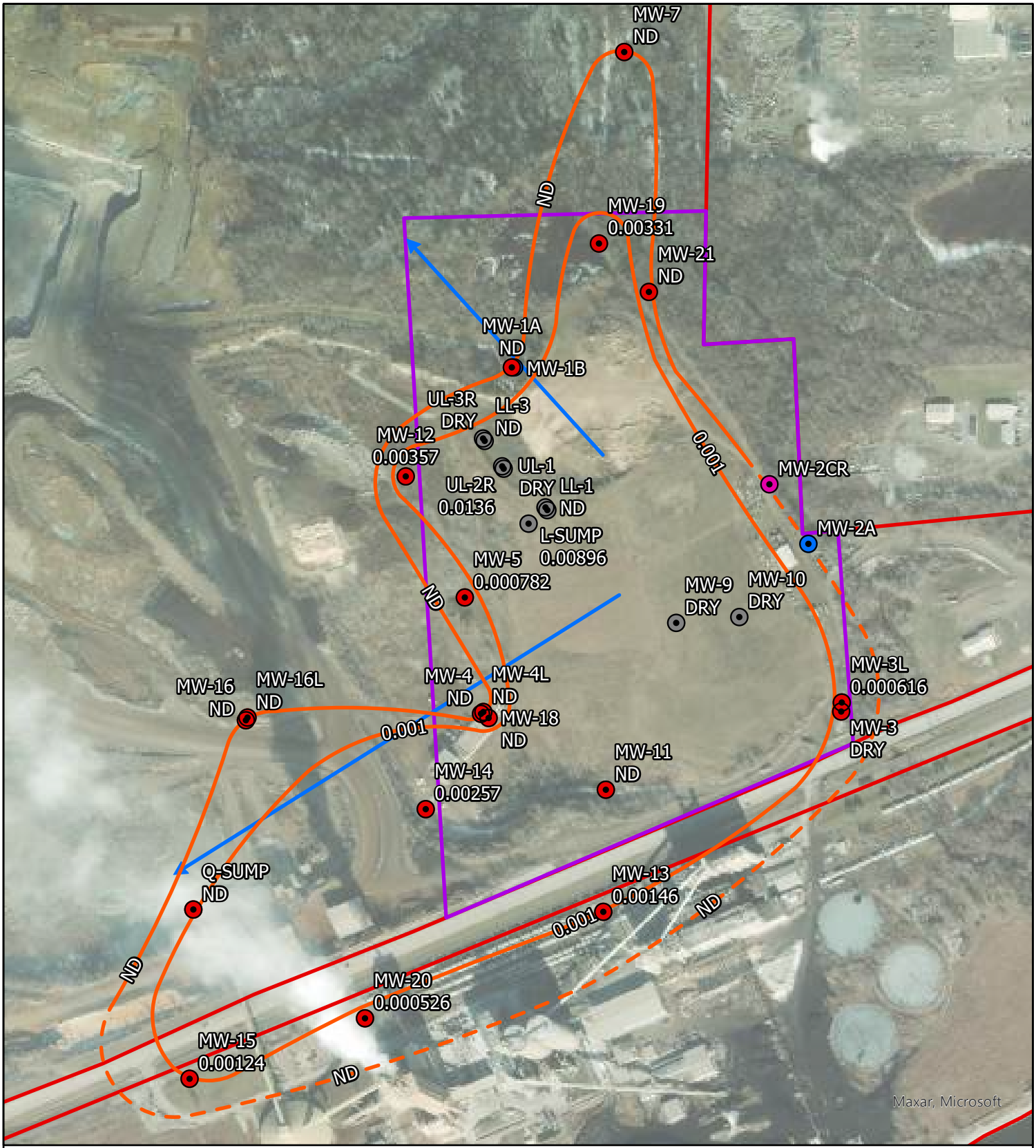
Lysimeter Points and Sumps not used for contouring
Concentrations in mg/L
Note - MW-11 and MW-7 were not used for contouring

0 500 1,000 Feet

N

FIGURE 9	Project Mgr. KB	Date: 11/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Molybdenum Isocontour Map September 2023 PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

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Lysimeter
Shallow
Deep
Stope

Groundwater Flow Direction
Cobalt Contours
Zoning
Property Boundary

Lysimeter Points and Sumps not used for contouring
Concentrations in mg/L
Note - MW-11 was not used for contouring

0 500 1,000 Feet

N

FIGURE 10	Project Mgr. KB	Date: 11/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Cobalt Isocontour Map September 2023 PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			

APPENDIX A

CONTINENTAL ANNUAL WATER QUALITY REPORT
Field Information Forms

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 3.20 – 3.21.23

Weather Conditions: Sunny 40 -54°F

Purging/Sampling Device: Hydrasleeves

Samplers: MG

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	D.O (mg/L)	ORP (mV)	Sample Appearance	Sample Odor	Comments
MW-1B	1222	23.24	43.28	11.58	6.53	1372	5.91	81.9	mostly clear	slight organic odor	
MW-2A*	940	29.33	65.91	29.95	6.95	1259	3.42	72.5	mostly clear	organic	warm to touch
MW-3	-	93.70	102.90	—	—	—	—	—	—	—	obstruction @ 22 ft
MW-1A	1215	133.02	146.80	12.94	7.00	798	4.70	51.7	mostly clear	no odor	
MW-4*	1315	5.95	34.36	12.99	11.19	11,850	4.62	53.2	yellowish	organic	
MW-5	1530	3.22	27.28	~~12.91~~	5.38	4,405	4.83	75.5	orangish	organic	
MW-11*	1250	60.93	115.53	~~13.71~~	11.08	14,710	3.64	32.7	yellowish	organic	
MW-12*	1215	50.30	72.29	14.71	7.44	1,286	3.67	60.2	clear	slight organic	
MW-13*	1110	60.53	~~1503~~ to 1.45	11.81	5.99	1,500	6.23	57.4	mostly clear	none	
MW-14*	1000	13.30	32.75	10.64	7.28	8,394	3.90	80.3	mostly clear	none	orange particulate @ bottom
MW-15*	835	64.55	138.09	10.01	6.98	1022	5.71	32.0	mostly clear	organic	
MW-16	~~1005~~ 1410	10.75	67.58	12.96	6.80	2,155	2.81	41.3	mostly clear	slight organic odor	

Field Observations/Comments:

* MW-2A, 4, 11, 12, 13, 14, 15, 4C, 7, 19, 21, Duplicate sampled on 3.21.23
MW-7 well pad loose; all other wells + pads free of debris and in good condition.
all wells were located upon arrival.

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 3.20-3.21.23

Weather Conditions: Sunny, 40-54°F

Purging/Sampling Device: Hydrasleeves

Samplers: MO

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	D.O (mg/L)	ORP (mV)	Sample Appearance	Sample Odor	Comments
MW-18	1312	8.50	68.29	11.86	10.76	15,820	4.63	-15.2	slight yellow	organic	
MW-3L	1505	94.90	155.90	14.50	6.72	93	4.43	57.1	[illegible]	[illegible]	
MW-4L	1233	58.60	61.36	13.24	10.88	16,500	3.56	21.8	yellowish	organic	
MW-7	915	126.08	189.97	10.78	7.28	747	4.00	39.0	mostly clear	slight organic	Loose cell pad
MW-16L	1425	1105	117.80	14.07	6.72	671	3.12	39.1	mostly clear	slight organic	
MW-19	1135	142.81	219.46	13.30	6.78	890	4.93	52.4	slight cloudy	slight organic	Duplicate P1137
Q-Sump	—	30.50	—	—	—	—	—	—	—	—	—
MW-2CR	—	—	—	—	—	—	—	—	—	—	—
MW-20	815	92.26	167.20	7.87	7.32	787	4.59	55.3	slight cloudy	no odor	PVC collar + weight
MW-21	1340	141.46	228.95	14.85	7.18	1,243	5.00	36.2	slight cloudy	slight organic	odor

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

MW-2 92.26
167.20

CONTINENTAL CEMENT MONITORING POINT SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 3.20.23 → 3.21.23

Weather Conditions: Sunny 40-54°F

Purging/Sampling Device: NA

Samplers: MO

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	D.O (mg/L)	ORP (mV)	Sample Appearance	Sample Odor	Volume purged & Final Water Level
MW-9	—	98.28	99.10	—	—	—	—	—	—	—	—
MW-10	—	97.30	98.10	—	—	—	—	—	—	—	—
UL-1	—	Dry	9.59	—	—	—	—	—	—	—	—
LL-1	—	21.00	24.69	—	—	—	—	—	—	—	—
L-Sump	—	4.55	—	—	—	—	—	—	—	—	—
UL-2R	—	8.22	10.16	—	—	—	—	—	—	—	—
LL-2	—	8.72	10.90	—	—	—	—	—	—	—	—
UL-3R	—	9.75	10.45	—	—	—	—	—	—	—	—
LL-3	—	9.67	10.71	—	—	—	—	—	—	—	—

↑ measurements from above table taken 1100 - ~~1005~~ 1130

3.21.23	WL (ft btoc)
LL-1	21.02
UL-2R	8.19
LL-2	8.70
LL-3	9.69

← levels taken 1030-1100

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 9-28-23

Weather Conditions: Sunny - Cloudy in Afternoon

Purging/Sampling Device: Hydrasleeve

Samplers: TS

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments
MW-1B	1120	29.65	43.32	14.78	6.88	1069	41.0	2.52	clear
MW-2A	1245	35.49	64.65	37.21	6.82	1028	61.7	1.42	clear
MW-1A	1150	135.61	142.72	17.07	6.96	768	-25.3	1.25	clear, v. low V.
MW-3	~~1315~~	Dry	101.35						
MW-4	0910	7.91	34.37	19.04	10.46	11450	-20.3	0.88	clear, highly turbid
MW-5	0815	9.62	26.82	16.57	6.56	3282	-39.5	1.69	clear, highly turbid w bits
2 MW-11 ★	1340	76.89	113.31	18.72	10.75	12610	-258.1	0.87	
MW-12	0740	53.19	77.98	14.63	7.15	1287	-50.9	1.90	clear,
2 MW-13	~~1535~~	~~60.41~~	134.27	17.64	7.08	1052	—	2.27	
MW-14	0940	15.19	32.15	17.11	7.42	7611	-39.5	0.96	clear, sl. grey
2 MW-15	1555	69.28	135.95	16.60	6.95	856	-72.2	0.98	
2 MW-16	1515	13.53	60.54	15.97	6.93	2008	-66	1.16	

Field Observations/Comments:
MW-1 - many roots/parts in well & sleeve
~~MW-11~~ - no hydra sleeve, redeploy during october

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT GROUNDWATER SAMPLING LOG

Site Name: Continental Cement CKD Monofill **Date:**

Weather Conditions: **Purging/Sampling Device:** Hydrasleeves

Samplers: **Analytical Parameters:** See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments
MW-18	0840	12.62	67.33	14.87	1c90	1538	-260	0.74	light green- clear,
MW-3L	1315	105.52	152.60	17.55	7.02	787	78.5	1.80	clear
MW-4L	0850	12.60	81.78	14.26	6.74	15240	-209.1	2.78	light green
MW-7	1010	131.74	185.40	14.99	10.26	674	-22.3	5.02	clear
2 MW-16L	1500	22.02	116.05	18.15	7.13	674	-88.9	1.24	
MW-19	1045	149.33	~~180~~	16.17	6.82	753	19.1	0.99	Dupe, Black specks part.
Q-Sump	1920	30.45	—	22.71	7.96	2699	-31	6.65	
~~MW-2CR~~									
2 MW-20	1015	106.83	—	14.66	708	695	-103.8	1.18	
MW-21	1125	148.78	—	18.49	692	714	-26.8	1.89	clear, sl. grey

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT MONITORING POINT SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 9-25-23

Weather Conditions: Sunny ~75

Purging/Sampling Device: Bailer

Samplers: TS

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments (Volume Purged & Final Water Level)
MW-9	insuf.	97.30	97.59						Bailer came up dry
MW-10	—	Dry	96.36	—	—	—	—	—	—
UL-1	—	Dry	9.59	—	—	—	—	—	—
LL-1	1500	22.92	24.64	17.82	12.83	21730	-116	6.33	fWL-23.56 P.V. - Sample
L-Sump	1530	16.53	—	20.72	12.79	74900	-190.7	9.09	—
UL-2R	1355	8.89	10.17	23.42	12.38	24740	-231	1.76	fWL-9.01 P.V - 5gal
LL-2	1405	7.50	10.90	18.82	6.37	12670	69	3.13	fWL-8.21 P.V. - 10gal
UL-3R	—	—	10.35	—	—	Dry	—	—	—
LL-3	1315	8.52	10.72	19.98	9.82	60340	-18	1.82	fWL-9.51 P.V.-5gal ↑ Rapidly recovered

Field Observations/Comments: All wells in good cond.

BLACKSTONE ENVIRONMENTAL

APPENDIX B

CONTINENTAL ANNUAL WATER QUALITY REPORT

Laboratory Analytical Reports

SEPTEMBER 2023 LABORATORY REPORT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Brodersen
Blackstone Environmental, Inc
1465 41st Street
Suite 13
Moline, Illinois 61265

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JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-255325-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

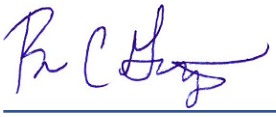
myEOL

Job Notes

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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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(319)277-2401

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Method Summary 22
Chain of Custody 23
Receipt Checklists 27

Job ID: 310-255325-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-255325-1

Receipt
The sample was received on 5/9/2023 9:20 AM. 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 0.8°C

HPLC/IC
Method 300.1_28D: The following sample was diluted for the bromate analyte due to the abundance of non-target chloride analyte: MW-2CR-S (310-255325-1). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6010D: The continuing calibration verification (CCV) associated with batch 310-387850 recovered above the upper control limit for Selenium. The samples associated with this CCV were non-detects for the affected analytes; 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.

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

Job ID: 310-255325-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-255325-2

Comments
No additional comments.

Receipt
The sample was received on 5/9/2023 9:20 AM. 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 0.8º C.

HPLC/IC
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.

Sample Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-255325-1	MW-2CR-S	Solid	05/08/23 13:15	05/09/23 09:20

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Client Sample ID: MW-2CR-S

Lab Sample ID: 310-255325-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6300		339		mg/Kg	10	☼	9056A	Soluble
Nitrate as N	754		67.9		mg/Kg	10	☼	9056A	Soluble
Sulfate	95300		1700		mg/Kg	50	☼	9056A	Soluble
Aluminum	1710		70.0		mg/Kg	5	☼	6020B	Total/NA
Barium	17.2		2.80		mg/Kg	5	☼	6020B	Total/NA
Calcium	249000		420		mg/Kg	5	☼	6020B	Total/NA
Chromium	4.90		4.20		mg/Kg	5	☼	6020B	Total/NA
Cobalt	2.89		1.40		mg/Kg	5	☼	6020B	Total/NA
Lead	51.8		7.00		mg/Kg	5	☼	6020B	Total/NA
Magnesium	24000		420		mg/Kg	5	☼	6020B	Total/NA
Manganese	396		7.00		mg/Kg	5	☼	6020B	Total/NA
Molybdenum	21.9		2.80		mg/Kg	5	☼	6020B	Total/NA
Nickel	494		4.20		mg/Kg	5	☼	6020B	Total/NA
Potassium	2930		420		mg/Kg	5	☼	6020B	Total/NA
Sodium	2750		700		mg/Kg	5	☼	6020B	Total/NA
Vanadium	1190		21.0		mg/Kg	25	☼	6020B	Total/NA
Total Phosphorus as P	124		32.8		mg/Kg	1	☼	365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	5030	F2 F1	1750		mg/Kg	1	☼	SM 2320B	Soluble
Bicarbonate Alkalinity as CaCO3	5030		1750		mg/Kg	1	☼	SM 2320B	Soluble
Total Dissolved Solids	2700		50.0		mg/L	1		SM 2540C	SPLP

This Detection Summary does not include radiochemical test results.

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Client Sample ID: MW-2CR-S

Date Collected: 05/08/23 13:15
Date Received: 05/09/23 09:20

Lab Sample ID: 310-255325-1

Matrix: Solid
Percent Solids: 28.4

Method: EPA 300.1 - Disinfection By-Products, (IC) - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<3500	F1	3500		ug/Kg	☼		05/19/23 07:03	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetate (Surr)	*108*		*90 - 115*		*05/19/23 07:03*	*20*

Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6300**		339		mg/Kg	☼		05/11/23 06:17	10
Nitrate as N	**754**		67.9		mg/Kg	☼		05/11/23 06:17	10
Fluoride	<67.9		67.9		mg/Kg	☼		05/11/23 06:17	10
Nitrite as N	<67.9		67.9		mg/Kg	☼		05/11/23 06:17	10
Sulfate	**95300**		1700		mg/Kg	☼		05/11/23 11:07	50

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.100		0.100		mg/L		05/16/23 09:35	05/17/23 15:42	1
Barium	<0.200		0.200		mg/L		05/16/23 09:35	05/17/23 15:42	1
Cadmium	<0.0200		0.0200		mg/L		05/16/23 09:35	05/17/23 15:42	1
Chromium	<0.0200		0.0200		mg/L		05/16/23 09:35	05/17/23 15:42	1
Lead	<0.100		0.100		mg/L		05/16/23 09:35	05/17/23 15:42	1
Selenium	<0.100	^+	0.100		mg/L		05/16/23 09:35	05/17/23 15:42	1
Silver	<0.0500		0.0500		mg/L		05/16/23 09:35	05/17/23 15:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1710**		70.0		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Arsenic	<2.80		2.80		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Antimony	<2.80		2.80		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Barium	**17.2**		2.80		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Beryllium	<1.40		1.40		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Boron	<140		140		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Cadmium	<1.40		1.40		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Calcium	**249000**		420		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Chromium	**4.90**		4.20		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Cobalt	**2.89**		1.40		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Copper	<4.20		4.20		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Lead	**51.8**		7.00		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Lithium	<7.00		7.00		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Magnesium	**24000**		420		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Manganese	**396**		7.00		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Molybdenum	**21.9**		2.80		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Nickel	**494**		4.20		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Potassium	**2930**		420		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Selenium	<4.20		4.20		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Silver	<1.40		1.40		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Sodium	**2750**		700		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Thallium	<1.40		1.40		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5
Vanadium	**1190**		21.0		mg/Kg	☼	05/16/23 11:25	05/25/23 12:56	25
Zinc	<14.0		14.0		mg/Kg	☼	05/16/23 11:25	05/23/23 22:26	5

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Client Sample ID: MW-2CR-S

Date Collected: 05/08/23 13:15
Date Received: 05/09/23 09:20

Lab Sample ID: 310-255325-1

Matrix: Solid
Percent Solids: 28.4

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		05/16/23 10:26	05/16/23 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**124**		32.8		mg/Kg	☼	05/12/23 10:24	05/12/23 20:48	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**5030**	**F2 F1**	1750		mg/Kg	☼		05/11/23 12:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**5030**		1750		mg/Kg	☼		05/11/23 12:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<1750		1750		mg/Kg	☼		05/11/23 12:08	1

General Chemistry - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2700**		50.0		mg/L			05/12/23 14:29	1

Definitions/Glossary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
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.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD 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

Surrogate Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Method: 300.1 - Disinfection By-Products, (IC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DCAA (90-115)
MRL 570-330280/4	Lab Control Sample	110

Surrogate Legend

DCAA = Dichloroacetate (Surr)

Method: 300.1 - Disinfection By-Products, (IC)

Matrix: Solid **Prep Type: Soluble**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DCAA (90-115)
310-255325-1	MW-2CR-S	108
310-255325-1 MS	MW-2CR-S	96
310-255325-1 MSD	MW-2CR-S	96
LCS 570-330282/2-A	Lab Control Sample	109
LCSD 570-330282/3-A	Lab Control Sample Dup	109
MB 570-330282/1-A	Method Blank	108

Surrogate Legend

DCAA = Dichloroacetate (Surr)

Method: 300.1 - Disinfection By-Products, (IC)

Lab Sample ID: MRL 570-330280/4
Matrix: Solid
Analysis Batch: 330280

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			5.00	4.857	J	ug/L		97	50 - 150		

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
Dichloroacetate (Surr)	*110*		*90 - 115*

Lab Sample ID: MB 570-330282/1-A
Matrix: Solid
Analysis Batch: 330280

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<49.8		49.8		ug/Kg			05/19/23 05:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetate (Surr)	*108*		*90 - 115*		*05/19/23 05:22*	*1*

Lab Sample ID: LCS 570-330282/2-A
Matrix: Solid
Analysis Batch: 330280

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			249	264.5		ug/Kg		106	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dichloroacetate (Surr)	*109*		*90 - 115*

Lab Sample ID: LCSD 570-330282/3-A
Matrix: Solid
Analysis Batch: 330280

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			250	262.5		ug/Kg		105	75 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dichloroacetate (Surr)	*109*		*90 - 115*

Lab Sample ID: 310-255325-1 MS
Matrix: Solid
Analysis Batch: 330280

Client Sample ID: MW-2CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate	<3500	F1	878	<3510	F1	ug/Kg	☼	130	75 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dichloroacetate (Surr)	*96*		*90 - 115*

Method: 300.1 - Disinfection By-Products, (IC) (Continued)

Lab Sample ID: 310-255325-1 MSD
Matrix: Solid
Analysis Batch: 330280

Client Sample ID: MW-2CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<3500	F1	882	<3530		ug/Kg	☼	112	75 - 125	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dichloroacetate (Surr)	*96*		*90 - 115*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-387040/1-A
Matrix: Solid
Analysis Batch: 387227

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<97.8		97.8		mg/Kg			05/10/23 23:47	10
Nitrate as N	<19.6		19.6		mg/Kg			05/10/23 23:47	10
Fluoride	<19.6		19.6		mg/Kg			05/10/23 23:47	10
Nitrite as N	<19.6		19.6		mg/Kg			05/10/23 23:47	10
Sulfate	<97.8		97.8		mg/Kg			05/10/23 23:47	10

Lab Sample ID: LCS 310-387040/2-A
Matrix: Solid
Analysis Batch: 387227

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	978	913.8		mg/Kg		93	90 - 110
Nitrate as N	196	198.9		mg/Kg		102	90 - 110
Fluoride	196	194.2		mg/Kg		99	90 - 110
Nitrite as N	196	194.7		mg/Kg		100	90 - 110
Sulfate	978	998.1		mg/Kg		102	90 - 110

Method: 6010D - Metals (ICP)

Lab Sample ID: LB 310-387521/1-B
Matrix: Solid
Analysis Batch: 387850

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 387642

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.100		0.100		mg/L		05/16/23 09:35	05/17/23 15:38	1
Barium	<0.200		0.200		mg/L		05/16/23 09:35	05/17/23 15:38	1
Cadmium	<0.0200		0.0200		mg/L		05/16/23 09:35	05/17/23 15:38	1
Chromium	<0.0200		0.0200		mg/L		05/16/23 09:35	05/17/23 15:38	1
Lead	<0.100		0.100		mg/L		05/16/23 09:35	05/17/23 15:38	1
Selenium	<0.100	^+	0.100		mg/L		05/16/23 09:35	05/17/23 15:38	1
Silver	<0.0500		0.0500		mg/L		05/16/23 09:35	05/17/23 15:38	1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 310-387521/2-B
Matrix: Solid
Analysis Batch: 387850

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 387642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	4.00	4.259		mg/L		106	80 - 120
Barium	2.00	2.048		mg/L		102	80 - 120
Cadmium	2.00	2.041		mg/L		102	80 - 120
Chromium	2.00	2.071		mg/L		104	80 - 120
Lead	4.00	4.011		mg/L		100	80 - 120
Selenium	8.00	8.489	^+	mg/L		106	80 - 120
Silver	2.00	2.076		mg/L		104	80 - 120

Lab Sample ID: 310-255325-1 MS
Matrix: Solid
Analysis Batch: 387850

Client Sample ID: MW-2CR-S
Prep Type: TCLP
Prep Batch: 387642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<0.100		4.00	4.400		mg/L		110	75 - 125
Barium	<0.200		2.00	2.210		mg/L		103	75 - 125
Cadmium	<0.0200		2.00	1.959		mg/L		98	75 - 125
Chromium	<0.0200		2.00	2.070		mg/L		104	75 - 125
Lead	<0.100		4.00	3.854		mg/L		96	75 - 125
Selenium	<0.100	^+	8.00	8.715	^+	mg/L		109	75 - 125
Silver	<0.0500		2.00	1.740		mg/L		87	75 - 125

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-387243/1-A ^5
Matrix: Solid
Analysis Batch: 388492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<23.3		23.3		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Arsenic	<0.932		0.932		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Antimony	<0.932		0.932		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Barium	<0.932		0.932		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Beryllium	<0.466		0.466		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Boron	<46.6		46.6		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Cadmium	<0.466		0.466		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Calcium	<140		140		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Chromium	<1.40		1.40		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Cobalt	<0.466		0.466		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Copper	<1.40		1.40		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Lead	<2.33		2.33		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Lithium	<2.33		2.33		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Magnesium	<140		140		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Manganese	<2.33		2.33		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Molybdenum	<0.932		0.932		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Nickel	<1.40		1.40		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Potassium	<140		140		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Selenium	<1.40		1.40		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Silver	<0.466		0.466		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Sodium	<233		233		mg/Kg		05/16/23 11:25	05/23/23 22:05	5

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

Lab Sample ID: MB 310-387243/1-A ^5
Matrix: Solid
Analysis Batch: 388492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.466		0.466		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Vanadium	<1.40		1.40		mg/Kg		05/16/23 11:25	05/23/23 22:05	5
Zinc	<4.66		4.66		mg/Kg		05/16/23 11:25	05/23/23 22:05	5

Lab Sample ID: LCS 310-387243/2-A ^20
Matrix: Solid
Analysis Batch: 388492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387243

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	177	194.6		mg/Kg		110	80 - 120
Arsenic	177	183.1		mg/Kg		103	80 - 120
Antimony	177	189.9		mg/Kg		107	80 - 120
Barium	88.6	99.16		mg/Kg		112	80 - 120
Beryllium	88.6	94.73		mg/Kg		107	80 - 120
Boron	177	188.9		mg/Kg		107	80 - 120
Cadmium	88.6	98.42		mg/Kg		111	80 - 120
Calcium	1770	1842		mg/Kg		104	80 - 120
Chromium	88.6	91.79		mg/Kg		104	80 - 120
Cobalt	88.6	86.22		mg/Kg		97	80 - 120
Copper	177	200.0		mg/Kg		113	80 - 120
Lead	177	203.5		mg/Kg		115	80 - 120
Lithium	177	193.3		mg/Kg		109	80 - 120
Magnesium	1770	1807		mg/Kg		102	80 - 120
Manganese	88.6	83.36		mg/Kg		94	80 - 120
Molybdenum	177	174.9		mg/Kg		99	80 - 120
Nickel	177	193.7		mg/Kg		109	80 - 120
Potassium	1770	1888		mg/Kg		107	80 - 120
Selenium	354	382.0		mg/Kg		108	80 - 120
Silver	88.6	93.83		mg/Kg		106	80 - 120
Sodium	1770	1667		mg/Kg		94	80 - 120
Thallium	177	180.0		mg/Kg		102	80 - 120
Vanadium	88.6	93.93		mg/Kg		106	80 - 120
Zinc	177	172.3		mg/Kg		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: LB 310-387521/1-C
Matrix: Solid
Analysis Batch: 387699

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 387664

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		05/16/23 10:26	05/16/23 14:41	1

Lab Sample ID: LCS 310-387521/2-C
Matrix: Solid
Analysis Batch: 387699

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 387664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0167	0.01646		mg/L		99	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 310-255325-1 MS
Matrix: Solid
Analysis Batch: 387699

Client Sample ID: MW-2CR-S
Prep Type: TCLP
Prep Batch: 387664

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00200		0.0167	0.01651		mg/L		99	80 - 120

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-387328/1-A
Matrix: Solid
Analysis Batch: 387408

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387328

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<9.84		9.84		mg/Kg		05/12/23 10:24	05/12/23 20:45	1

Lab Sample ID: LCS 310-387328/2-A
Matrix: Solid
Analysis Batch: 387408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387328

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	98.8	96.83		mg/Kg		98	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-387337/2
Matrix: Solid
Analysis Batch: 387337

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.00		5.00		mg/Kg			05/11/23 11:49	1
Bicarbonate Alkalinity as CaCO3	<5.00		5.00		mg/Kg			05/11/23 11:49	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/Kg			05/11/23 11:49	1

Lab Sample ID: LCS 310-387141/1-A
Matrix: Solid
Analysis Batch: 387337

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	100000	96280		mg/Kg		96	90 - 110

Lab Sample ID: 310-255325-1 MS
Matrix: Solid
Analysis Batch: 387337

Client Sample ID: MW-2CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	5030	F2 F1	35000	19490	F1	mg/Kg	☼	41	71 - 130

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 310-255325-1 MSD
Matrix: Solid
Analysis Batch: 387337

Client Sample ID: MW-2CR-S
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	5030	F2 F1	35000	16030	F2 F1	mg/Kg	☼	31	71 - 130	20	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LB 310-387222/1-A
Matrix: Solid
Analysis Batch: 387369

Client Sample ID: Method Blank
Prep Type: SPLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			05/12/23 14:29	1

Lab Sample ID: LCS 310-387222/2-A
Matrix: Solid
Analysis Batch: 387369

Client Sample ID: Lab Control Sample
Prep Type: SPLP

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	952.0		mg/L		95	90 - 110

Lab Sample ID: 310-255325-1 DU
Matrix: Solid
Analysis Batch: 387369

Client Sample ID: MW-2CR-S
Prep Type: SPLP

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2700		2848		mg/L		5	20

HPLC/IC

Analysis Batch: 330280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Soluble	Solid	300.1	330282
MB 570-330282/1-A	Method Blank	Soluble	Solid	300.1	330282
LCS 570-330282/2-A	Lab Control Sample	Soluble	Solid	300.1	330282
LCSD 570-330282/3-A	Lab Control Sample Dup	Soluble	Solid	300.1	330282
MRL 570-330280/4	Lab Control Sample	Total/NA	Solid	300.1	
310-255325-1 MS	MW-2CR-S	Soluble	Solid	300.1	330282
310-255325-1 MSD	MW-2CR-S	Soluble	Solid	300.1	330282

Leach Batch: 330282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Soluble	Solid	DI Leach	
MB 570-330282/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 570-330282/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 570-330282/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
310-255325-1 MS	MW-2CR-S	Soluble	Solid	DI Leach	
310-255325-1 MSD	MW-2CR-S	Soluble	Solid	DI Leach	

Leach Batch: 387040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Soluble	Solid	DI Leach	
MB 310-387040/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 310-387040/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

Analysis Batch: 387227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Soluble	Solid	9056A	387040
310-255325-1	MW-2CR-S	Soluble	Solid	9056A	387040
MB 310-387040/1-A	Method Blank	Soluble	Solid	9056A	387040
LCS 310-387040/2-A	Lab Control Sample	Soluble	Solid	9056A	387040

Metals

Prep Batch: 387243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Total/NA	Solid	3050B	
MB 310-387243/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 310-387243/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	

Leach Batch: 387521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	TCLP	Solid	1311	
LB 310-387521/1-B	Method Blank	TCLP	Solid	1311	
LB 310-387521/1-C	Method Blank	TCLP	Solid	1311	
LCS 310-387521/2-B	Lab Control Sample	TCLP	Solid	1311	
LCS 310-387521/2-C	Lab Control Sample	TCLP	Solid	1311	
310-255325-1 MS	MW-2CR-S	TCLP	Solid	1311	

Prep Batch: 387642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	TCLP	Solid	3010A	387521
LB 310-387521/1-B	Method Blank	TCLP	Solid	3010A	387521

Metals (Continued)

Prep Batch: 387642 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-387521/2-B	Lab Control Sample	TCLP	Solid	3010A	387521
310-255325-1 MS	MW-2CR-S	TCLP	Solid	3010A	387521

Prep Batch: 387664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	TCLP	Solid	7470A	387521
LB 310-387521/1-C	Method Blank	TCLP	Solid	7470A	387521
LCS 310-387521/2-C	Lab Control Sample	TCLP	Solid	7470A	387521
310-255325-1 MS	MW-2CR-S	TCLP	Solid	7470A	387521

Analysis Batch: 387699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	TCLP	Solid	7470A	387664
LB 310-387521/1-C	Method Blank	TCLP	Solid	7470A	387664
LCS 310-387521/2-C	Lab Control Sample	TCLP	Solid	7470A	387664
310-255325-1 MS	MW-2CR-S	TCLP	Solid	7470A	387664

Analysis Batch: 387850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	TCLP	Solid	6010D	387642
LB 310-387521/1-B	Method Blank	TCLP	Solid	6010D	387642
LCS 310-387521/2-B	Lab Control Sample	TCLP	Solid	6010D	387642
310-255325-1 MS	MW-2CR-S	TCLP	Solid	6010D	387642

Analysis Batch: 388492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Total/NA	Solid	6020B	387243
MB 310-387243/1-A ^5	Method Blank	Total/NA	Solid	6020B	387243
LCS 310-387243/2-A ^20	Lab Control Sample	Total/NA	Solid	6020B	387243

Analysis Batch: 388713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Total/NA	Solid	6020B	387243

General Chemistry

Leach Batch: 387141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Soluble	Solid	DI Leach	
LCS 310-387141/1-A	Lab Control Sample	Soluble	Solid	DI Leach	
310-255325-1 MS	MW-2CR-S	Soluble	Solid	DI Leach	
310-255325-1 MSD	MW-2CR-S	Soluble	Solid	DI Leach	

Leach Batch: 387222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	SPLP	Solid	1312	
LB 310-387222/1-A	Method Blank	SPLP	Solid	1312	
LCS 310-387222/2-A	Lab Control Sample	SPLP	Solid	1312	
310-255325-1 DU	MW-2CR-S	SPLP	Solid	1312	

QC Association Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

General Chemistry

Prep Batch: 387328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Total/NA	Solid	365.1	
MB 310-387328/1-A	Method Blank	Total/NA	Solid	365.1	
LCS 310-387328/2-A	Lab Control Sample	Total/NA	Solid	365.1	

Analysis Batch: 387337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Soluble	Solid	SM 2320B	387141
MB 310-387337/2	Method Blank	Total/NA	Solid	SM 2320B	
LCS 310-387141/1-A	Lab Control Sample	Soluble	Solid	SM 2320B	387141
310-255325-1 MS	MW-2CR-S	Soluble	Solid	SM 2320B	387141
310-255325-1 MSD	MW-2CR-S	Soluble	Solid	SM 2320B	387141

Analysis Batch: 387369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	SPLP	Solid	SM 2540C	387222
LB 310-387222/1-A	Method Blank	SPLP	Solid	SM 2540C	387222
LCS 310-387222/2-A	Lab Control Sample	SPLP	Solid	SM 2540C	387222
310-255325-1 DU	MW-2CR-S	SPLP	Solid	SM 2540C	387222

Analysis Batch: 387408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255325-1	MW-2CR-S	Total/NA	Solid	365.1	387328
MB 310-387328/1-A	Method Blank	Total/NA	Solid	365.1	387328
LCS 310-387328/2-A	Lab Control Sample	Total/NA	Solid	365.1	387328

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Client Sample ID: MW-2CR-S
Date Collected: 05/08/23 13:15
Date Received: 05/09/23 09:20

Lab Sample ID: 310-255325-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			387521	FK4Z	EET CF	05/15/23 14:00 - 05/16/23 06:00 [1]
TCLP	Prep	3010A			387642	KCK5	EET CF	05/16/23 09:35
TCLP	Analysis	6010D		1	387850	A6US	EET CF	05/17/23 15:42
TCLP	Leach	1311			387521	FK4Z	EET CF	05/15/23 14:00 - 05/16/23 06:00 [1]
TCLP	Prep	7470A			387664	XXW3	EET CF	05/16/23 10:26
TCLP	Analysis	7470A		1	387699	XXW3	EET CF	05/16/23 14:46
SPLP	Leach	1312			387222	FK4Z	EET CF	05/11/23 14:00 - 05/12/23 06:00 [1]
SPLP	Analysis	SM 2540C		1	387369	WZC8	EET CF	05/12/23 14:29

Client Sample ID: MW-2CR-S
Date Collected: 05/08/23 13:15
Date Received: 05/09/23 09:20

Lab Sample ID: 310-255325-1
Matrix: Solid
Percent Solids: 28.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			330282	YO8L	EET CAL 4	05/19/23 03:00
Soluble	Analysis	300.1		20	330280	YO8L	EET CAL 4	05/19/23 07:03
Soluble	Leach	DI Leach			387040	QTZ5	EET CF	05/10/23 13:29
Soluble	Analysis	9056A		10	387227	QTZ5	EET CF	05/11/23 06:17
Soluble	Leach	DI Leach			387040	QTZ5	EET CF	05/10/23 13:29
Soluble	Analysis	9056A		50	387227	QTZ5	EET CF	05/11/23 11:07
Total/NA	Prep	3050B			387243	DHM5	EET CF	05/16/23 11:25
Total/NA	Analysis	6020B		5	388492	A6US	EET CF	05/23/23 22:26
Total/NA	Prep	3050B			387243	DHM5	EET CF	05/16/23 11:25
Total/NA	Analysis	6020B		25	388713	A6US	EET CF	05/25/23 12:56
Total/NA	Prep	365.1			387328	MAQ3	EET CF	05/12/23 10:24
Total/NA	Analysis	365.1		1	387408	ZJX4	EET CF	05/12/23 20:48
Soluble	Leach	DI Leach			387141	MAQ3	EET CF	05/11/23 08:07
Soluble	Analysis	SM 2320B		1	387337	MAQ3	EET CF	05/11/23 12:08

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-255325-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3050B	Solid	Lithium
SM 2320B		Solid	Bicarbonate Alkalinity as CaCO3
SM 2320B		Solid	Carbonate Alkalinity as CaCO3
SM 2320B		Solid	Total Alkalinity as CaCO3 to pH 4.5
SM 2540C		Solid	Total Dissolved Solids

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-23
California	Los Angeles County Sanitation Districts	10109	07-31-23
California	SCAQMD LAP	17LA0919	11-30-23
California	State	3082	07-31-24
Kansas	NELAP	E-10420	07-31-23
Nevada	State	CA00111	08-01-23
Oregon	NELAP	4175	02-02-24
USDA	US Federal Programs	P330-22-00059	05-24-23
Washington	State	C916-18	10-11-23

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255325-1

Method	Method Description	Protocol	Laboratory
300.1	Disinfection By-Products, (IC)	EPA	EET CAL 4
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
1311	TCLP Extraction	SW846	EET CF
1312	SPLP Extraction	SW846	EET CF
3010A	Preparation, Total Metals	SW846	EET CF
3050B	Preparation, Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF
7470A	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CAL 4
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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 CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

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

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310-255325 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY Moline | STATE IL | Project:

Receipt Information

Date/Time Received: DATE 5/9/23 | TIME 0920 | Received By: JJ

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: W | Correction Factor (°C): TD

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

Uncorrected Temp (°C): 0.8 | Corrected Temp (°C): 0.8

• 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

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information	Sampler: Megan Ostrand	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Krista Brodersen	Phone: 309-581-5095	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested:			
City: Moline	TAT Requested (days): STD			
State, Zip: IL, 61265	Compliance Project: Δ Yes Δ No			
Phone: 309-581-5095	PO #: Purchase Order not required			
Email: kbrodersen@blackstone-env.com	WO #:			
Project Name: Buffalo IA	Project #: 31010114			
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	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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1 - Total Phosphorous	TCLP 8 RCRA- 6010D, 7470A	300.1_28D - (MOD) - Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N							
MW-2CR-S	5-8-23	1315	G	Solid			X	X	X	X	X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	~~5-8-23~~	5-8-23 @ 1535	BEI	MC	5-9-23 920	
2						
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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

Chain of Custody Record

eurofins | En

Loc: 310
255325

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-61174.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): State - Iowa		Job #: 310-255325-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 5/22/2023			
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

Analysis Requested

Preservation Code
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
Other:

310-255325 Chain of Custody

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)	300.1, 28D/DI_LEACH (MOD) Chlorate, Bromate, Bromide	Total Number of containers	Special Instr
			Preservation Code:						
MW-2CR-S (310-255325-1)	5/8/23	13:15 Central		Solid			X	1	

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: 5/9/23 1410	Company	Received by:	Date/Time: 5/10/23 0935	Company EC
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: 0.6/0.5 SC12

Ver: 06/08/2021

ICOC No:
310-61174

Containers

Count	Container Type	Preservative
1	Soil jar 4oz - clear glass	None

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-255325-1

Login Number: 255325
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.	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: Blackstone Environmental, Inc

Job Number: 310-255325-1

Login Number: 255325
List Number: 2
Creator: Kasianchuk, Ivanna

List Source: Eurofins Calscience
List Creation: 05/10/23 12:17 PM

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	2069409
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	0.5
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?	False	Received project as a subcontract.
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: Krista Brodersen
Blackstone Environmental, Inc
1465 41st Street
Suite 13
Moline, Illinois 61265

Generated 5/29/2023 7:56:35 AM

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-255327-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

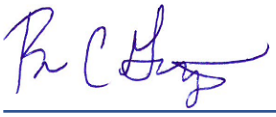
myEOL

Job Notes

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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
5/29/2023 7:56:35 AM

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Case Narrative

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Job ID: 310-255327-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-255327-1

Receipt
The sample was received on 5/9/2023 9:20 AM. 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 0.8°C

HPLC/IC
Method 300.1B_28D: The following sample was diluted due to the nature of the sample matrix: MW-2CR (310-255327-1). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6020B: The following sample was received with insufficient preservation: MW-2CR (310-255327-1). The client was contacted and preservative was added by the laboratory, but the sample remained strongly basic. No further attempt was made to acidify the sample, as it would have diluted the sample. This does not meet regulatory requirements.

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.

Job ID: 310-255327-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-255327-2

Receipt
The sample was received on 5/9/2023 9:20 AM. 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 0.8°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: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-255327-1	MW-2CR	Water	05/08/23 13:05	05/09/23 09:20

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Client Sample ID: MW-2CR

Lab Sample ID: 310-255327-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2800		100		mg/L	100		9056A	Total/NA
Nitrate as N	332		20.0		mg/L	100		9056A	Total/NA
Nitrite as N	20.9		20.0		mg/L	100		9056A	Total/NA
Sulfate	22800		250		mg/L	250		9056A	Total/NA
Aluminum	15.9		0.0500		mg/L	1		6020B	Total/NA
Arsenic	0.0114		0.00200		mg/L	1		6020B	Total/NA
Antimony	0.00225		0.00200		mg/L	1		6020B	Total/NA
Barium	0.220		0.00200		mg/L	1		6020B	Total/NA
Boron	10.3		10.0		mg/L	100		6020B	Total/NA
Cadmium	0.00632		0.000200		mg/L	1		6020B	Total/NA
Calcium	364		0.500		mg/L	1		6020B	Total/NA
Chromium	0.0193		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.0377		0.000500		mg/L	1		6020B	Total/NA
Copper	0.0220		0.00500		mg/L	1		6020B	Total/NA
Lead	0.0323		0.000500		mg/L	1		6020B	Total/NA
Lithium	1.33		0.300		mg/L	30		6020B	Total/NA
Magnesium	7040		50.0		mg/L	100		6020B	Total/NA
Manganese	7.82		0.300		mg/L	30		6020B	Total/NA
Molybdenum	4.83		0.0600		mg/L	30		6020B	Total/NA
Nickel	5.32		0.150		mg/L	30		6020B	Total/NA
Potassium	1100		15.0		mg/L	30		6020B	Total/NA
Selenium	0.0878		0.00500		mg/L	1		6020B	Total/NA
Sodium	1020		30.0		mg/L	30		6020B	Total/NA
Thallium	0.0111		0.00100		mg/L	1		6020B	Total/NA
Vanadium	40.5		0.500		mg/L	100		6020B	Total/NA
Total Phosphorus as P	0.205		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	435		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	435		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	37800		2500		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Client Sample ID: MW-2CR

Date Collected: 05/08/23 13:05
Date Received: 05/09/23 09:20

Lab Sample ID: 310-255327-1

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<250		250		ug/L			05/11/23 19:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*92*		*90 - 115*		*05/11/23 19:14*	*50*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2800**		100		mg/L			05/09/23 15:04	100
Nitrate as N	**332**		20.0		mg/L			05/09/23 15:04	100
Fluoride	<20.0		20.0		mg/L			05/09/23 15:04	100
Nitrite as N	**20.9**		20.0		mg/L			05/09/23 15:04	100
Sulfate	**22800**		250		mg/L			05/26/23 11:28	250

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15.9**		0.0500		mg/L		05/10/23 09:10	05/15/23 22:46	1
Arsenic	**0.0114**		0.00200		mg/L		05/10/23 09:10	05/15/23 22:46	1
Antimony	**0.00225**		0.00200		mg/L		05/10/23 09:10	05/15/23 22:46	1
Barium	**0.220**		0.00200		mg/L		05/10/23 09:10	05/15/23 22:46	1
Beryllium	<0.00100		0.00100		mg/L		05/10/23 09:10	05/15/23 22:46	1
Boron	**10.3**		10.0		mg/L		05/10/23 09:10	05/17/23 18:30	100
Cadmium	**0.00632**		0.000200		mg/L		05/10/23 09:10	05/15/23 22:46	1
Calcium	**364**		0.500		mg/L		05/10/23 09:10	05/15/23 22:46	1
Chromium	**0.0193**		0.00500		mg/L		05/10/23 09:10	05/15/23 22:46	1
Cobalt	**0.0377**		0.000500		mg/L		05/10/23 09:10	05/15/23 22:46	1
Copper	**0.0220**		0.00500		mg/L		05/10/23 09:10	05/15/23 22:46	1
Lead	**0.0323**		0.000500		mg/L		05/10/23 09:10	05/15/23 22:46	1
Lithium	**1.33**		0.300		mg/L		05/10/23 09:10	05/16/23 20:12	30
Magnesium	**7040**		50.0		mg/L		05/10/23 09:10	05/17/23 18:30	100
Manganese	**7.82**		0.300		mg/L		05/10/23 09:10	05/16/23 20:12	30
Molybdenum	**4.83**		0.0600		mg/L		05/10/23 09:10	05/16/23 20:12	30
Nickel	**5.32**		0.150		mg/L		05/10/23 09:10	05/16/23 20:12	30
Potassium	**1100**		15.0		mg/L		05/10/23 09:10	05/16/23 20:12	30
Selenium	**0.0878**		0.00500		mg/L		05/10/23 09:10	05/15/23 22:46	1
Silver	<0.00100		0.00100		mg/L		05/10/23 09:10	05/15/23 22:46	1
Sodium	**1020**		30.0		mg/L		05/10/23 09:10	05/16/23 20:12	30
Thallium	**0.0111**		0.00100		mg/L		05/10/23 09:10	05/15/23 22:46	1
Vanadium	**40.5**		0.500		mg/L		05/10/23 09:10	05/17/23 18:30	100
Zinc	<0.600		0.600		mg/L		05/10/23 09:10	05/16/23 20:12	30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.205**		0.100		mg/L		05/10/23 09:06	05/10/23 19:08	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**435**		5.00		mg/L			05/10/23 14:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**435**		5.00		mg/L			05/10/23 14:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			05/10/23 14:43	1
Total Dissolved Solids (SM 2540C)	**37800**		2500		mg/L			05/10/23 14:01	1

Definitions/Glossary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

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: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCAA (90-115)							
310-255327-1	MW-2CR	92							
LCS 680-778233/3	Lab Control Sample	97							
LCSD 680-778233/4	Lab Control Sample Dup	103							
MB 680-778233/2	Method Blank	101							

Surrogate Legend

DCAA = Dichloroacetic acid(Surr)

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC)

Lab Sample ID: MB 680-778233/2
Matrix: Water
Analysis Batch: 778233

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			05/11/23 08:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*101*		*90 - 115*		*05/11/23 08:25*	*1*

Lab Sample ID: LCS 680-778233/3
Matrix: Water
Analysis Batch: 778233

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	50.0	50.34		ug/L		101	85 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*97*		*90 - 115*

Lab Sample ID: LCSD 680-778233/4
Matrix: Water
Analysis Batch: 778233

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	50.0	49.40		ug/L		99	85 - 115	2	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*103*		*90 - 115*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 310-387068/6
Matrix: Water
Analysis Batch: 387068

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.776		mg/L		98	90 - 110
Nitrate as N	2.00	2.105		mg/L		105	90 - 110
Fluoride	2.00	2.187		mg/L		109	90 - 110
Nitrite as N	2.00	2.016		mg/L		101	90 - 110
Sulfate	10.0	10.71		mg/L		107	90 - 110

Lab Sample ID: MB 310-388852/3
Matrix: Water
Analysis Batch: 388852

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			05/25/23 17:11	1
Fluoride	<0.200		0.200		mg/L			05/25/23 17:11	1
Sulfate	<1.00		1.00		mg/L			05/25/23 17:11	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 310-388852/4
Matrix: Water
Analysis Batch: 388852

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.20		mg/L		102	90 - 110
Fluoride	2.00	2.169		mg/L		108	90 - 110
Sulfate	10.0	10.68		mg/L		107	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-386959/1-A
Matrix: Water
Analysis Batch: 387654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Arsenic	<0.00200		0.00200		mg/L		05/10/23 09:10	05/15/23 21:07	1
Antimony	<0.00200		0.00200		mg/L		05/10/23 09:10	05/15/23 21:07	1
Barium	<0.00200		0.00200		mg/L		05/10/23 09:10	05/15/23 21:07	1
Boron	<0.100		0.100		mg/L		05/10/23 09:10	05/15/23 21:07	1
Cadmium	<0.000200		0.000200		mg/L		05/10/23 09:10	05/15/23 21:07	1
Calcium	<0.500		0.500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Chromium	<0.00500		0.00500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Cobalt	<0.000500		0.000500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Copper	<0.00500		0.00500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Lead	<0.000500		0.000500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Magnesium	<0.500		0.500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Manganese	<0.0100		0.0100		mg/L		05/10/23 09:10	05/15/23 21:07	1
Molybdenum	<0.00200		0.00200		mg/L		05/10/23 09:10	05/15/23 21:07	1
Nickel	<0.00500		0.00500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Potassium	<0.500		0.500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Selenium	<0.00500		0.00500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Silver	<0.00100		0.00100		mg/L		05/10/23 09:10	05/15/23 21:07	1
Sodium	<1.00		1.00		mg/L		05/10/23 09:10	05/15/23 21:07	1
Thallium	<0.00100		0.00100		mg/L		05/10/23 09:10	05/15/23 21:07	1
Vanadium	<0.00500		0.00500		mg/L		05/10/23 09:10	05/15/23 21:07	1
Zinc	<0.0200		0.0200		mg/L		05/10/23 09:10	05/15/23 21:07	1

Lab Sample ID: MB 310-386959/1-A
Matrix: Water
Analysis Batch: 387789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00100		0.00100		mg/L		05/10/23 09:10	05/16/23 19:21	1
Lithium	<0.0100		0.0100		mg/L		05/10/23 09:10	05/16/23 19:21	1

Lab Sample ID: LCS 310-386959/2-A
Matrix: Water
Analysis Batch: 387654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2353		mg/L		118	80 - 120
Arsenic	0.200	0.2190		mg/L		110	80 - 120

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

Lab Sample ID: LCS 310-386959/2-A
Matrix: Water
Analysis Batch: 387654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2328		mg/L		116	80 - 120
Barium	0.100	0.1068		mg/L		107	80 - 120
Boron	0.200	0.2402		mg/L		120	80 - 120
Cadmium	0.100	0.1049		mg/L		105	80 - 120
Calcium	2.00	2.322		mg/L		116	80 - 120
Chromium	0.100	0.1063		mg/L		106	80 - 120
Cobalt	0.100	0.1162		mg/L		116	80 - 120
Copper	0.200	0.2277		mg/L		114	80 - 120
Lead	0.200	0.2203		mg/L		110	80 - 120
Magnesium	2.00	2.240		mg/L		112	80 - 120
Manganese	0.100	0.1005		mg/L		100	80 - 120
Molybdenum	0.200	0.2198		mg/L		110	80 - 120
Nickel	0.200	0.2275		mg/L		114	80 - 120
Potassium	2.00	2.243		mg/L		112	80 - 120
Selenium	0.400	0.4346		mg/L		109	80 - 120
Silver	0.100	0.1189		mg/L		119	80 - 120
Thallium	0.200	0.2118		mg/L		106	80 - 120
Vanadium	0.100	0.1048		mg/L		105	80 - 120
Zinc	0.200	0.2106		mg/L		105	80 - 120

Lab Sample ID: LCS 310-386959/2-A
Matrix: Water
Analysis Batch: 387789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2213		mg/L		111	80 - 120
Beryllium	0.100	0.1059		mg/L		106	80 - 120
Calcium	2.00	2.156		mg/L		108	80 - 120
Cobalt	0.100	0.1110		mg/L		111	80 - 120
Lithium	0.200	0.2213		mg/L		111	80 - 120
Silver	0.100	0.1062		mg/L		106	80 - 120
Sodium	2.00	2.335		mg/L		117	80 - 120

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-387021/1-A
Matrix: Water
Analysis Batch: 387105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		05/10/23 09:06	05/10/23 19:04	1

Lab Sample ID: LCS 310-387021/2-A
Matrix: Water
Analysis Batch: 387105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9812		mg/L		98	90 - 110

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-387123/7
Matrix: Water
Analysis Batch: 387123

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.00		5.00		mg/L			05/10/23 12:56	1
Bicarbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			05/10/23 12:56	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			05/10/23 12:56	1

Lab Sample ID: LCS 310-387123/8
Matrix: Water
Analysis Batch: 387123

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	962.8		mg/L		96	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-387071/1
Matrix: Water
Analysis Batch: 387071

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			05/10/23 14:01	1

Lab Sample ID: LCS 310-387071/2
Matrix: Water
Analysis Batch: 387071

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	902.0		mg/L		90	90 - 110

QC Association Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

HPLC/IC

Analysis Batch: 387068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	9056A	
LCS 310-387068/6	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 388852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	9056A	
MB 310-388852/3	Method Blank	Total/NA	Water	9056A	
LCS 310-388852/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 778233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	300.1B-1997 R1.	
MB 680-778233/2	Method Blank	Total/NA	Water	300.1B-1997 R1.	
LCS 680-778233/3	Lab Control Sample	Total/NA	Water	300.1B-1997 R1.	
LCSD 680-778233/4	Lab Control Sample Dup	Total/NA	Water	300.1B-1997 R1.	

Metals

Prep Batch: 386959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	3005A	
MB 310-386959/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-386959/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 387654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	6020B	386959
MB 310-386959/1-A	Method Blank	Total/NA	Water	6020B	386959
LCS 310-386959/2-A	Lab Control Sample	Total/NA	Water	6020B	386959

Analysis Batch: 387789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	6020B	386959
MB 310-386959/1-A	Method Blank	Total/NA	Water	6020B	386959
LCS 310-386959/2-A	Lab Control Sample	Total/NA	Water	6020B	386959

Analysis Batch: 387918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	6020B	386959

General Chemistry

Prep Batch: 387021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	365.1	
MB 310-387021/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-387021/2-A	Lab Control Sample	Total/NA	Water	365.1	

QC Association Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

General Chemistry

Analysis Batch: 387071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	SM 2540C	
MB 310-387071/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-387071/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 387105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	365.1	387021
MB 310-387021/1-A	Method Blank	Total/NA	Water	365.1	387021
LCS 310-387021/2-A	Lab Control Sample	Total/NA	Water	365.1	387021

Analysis Batch: 387123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-255327-1	MW-2CR	Total/NA	Water	SM 2320B	
MB 310-387123/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-387123/8	Lab Control Sample	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Client Sample ID: MW-2CR

Date Collected: 05/08/23 13:05
Date Received: 05/09/23 09:20

Lab Sample ID: 310-255327-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		50	778233	KMB	EET SAV	05/11/23 19:14
Total/NA	Analysis	9056A		100	387068	QTZ5	EET CF	05/09/23 15:04
Total/NA	Analysis	9056A		250	388852	QTZ5	EET CF	05/26/23 11:28
Total/NA	Prep	3005A			386959	DHM5	EET CF	05/10/23 09:10
Total/NA	Analysis	6020B		1	387654	ZRI4	EET CF	05/15/23 22:46
Total/NA	Prep	3005A			386959	DHM5	EET CF	05/10/23 09:10
Total/NA	Analysis	6020B		30	387789	ZRI4	EET CF	05/16/23 20:12
Total/NA	Prep	3005A			386959	DHM5	EET CF	05/10/23 09:10
Total/NA	Analysis	6020B		100	387918	ZRI4	EET CF	05/17/23 18:30
Total/NA	Prep	365.1			387021	MAQ3	EET CF	05/10/23 09:06
Total/NA	Analysis	365.1		1	387105	ZJX4	EET CF	05/10/23 19:08
Total/NA	Analysis	SM 2320B		1	387123	WZC8	EET CF	05/10/23 14:43
Total/NA	Analysis	SM 2540C		1	387071	WZC8	EET CF	05/10/23 14:01

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-255327-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	353	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.1B-1997 R1.		Water	Bromate

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-255327-1

Method	Method Description	Protocol	Laboratory
300.1B-1997 R1.	Disinfection By-Products, (IC)	EPA	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

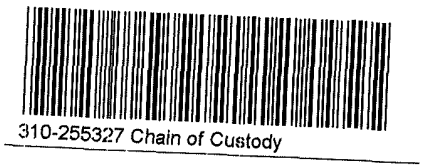
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY Moline | STATE IL | Project:

Receipt Information

Date/Time Received: DATE 5/9/23 | TIME 0920 | Received By: JJ

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

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

Uncorrected Temp (°C): 0.9 | Corrected Temp (°C): 0.8

• **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

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information	Sampler: Megan Ostrand	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79151-22246 2
Client Contact: Krista Brodersen	Phone: 309-581-5095	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin: IA	Page: Page 2 of 2
Company: Blackstone Environmental Inc	PWSID:			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested			
City: Moline	TAT Requested (days): 10			
State, Zip: IL, 61265	Compliance Project: (Δ Yes) Δ No			
Phone: 309-581-5095	PO #: Purchase Order not required			
Email: kbrodersen@blackstone-env com	WO #: 3433			
Project Name: Buffalo, IA	Project #: 31010114			
Site: Continental	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	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)	2320B- Bicarbonate and carbonate Alkalinity	2540C_Calcd TDS	9056A_ORGFM_28D- Chloride, Fluoride, and Sulfate	9056A_ORGFM_48H- Nitrate and Nitrite	365.1 - Phosphorus, Total	6020A - Client List Metals	Bromate (subcontract)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	N	D					
MW-2CR	5-8-23	1305	G	Water			X	X	X	X	X	X	X		
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
[signature] 5-8-23	5-8-23 @ 1535	DEI	MC	5-9-23 920	
[signature]					

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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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Client Information (Sub Contract Lab)	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s).	COC No: 310-61176 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-255327-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 5/22/2023			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo IA	Project #: 31010114			
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)	300.1B_28DI Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-2CR (310-255327-1)	5/8/23	13:05 Central		Water			X	1	

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: 5/23 1430	Company	Received by: TH	Date/Time: 05-10-23	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10:30	Company
	Date/Time:	Company	Received by:	Date/Time:	Company

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-255327-1

Login Number: 255327
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.	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: Blackstone Environmental, Inc

Job Number: 310-255327-1

Login Number: 255327
List Number: 2
Creator: Harley, Tynisha

List Source: Eurofins Savannah
List Creation: 05/10/23 12:08 PM

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.	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.	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.	N/A	
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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Brodersen
Blackstone Environmental, Inc
1465 41st Street
Suite 13
Moline, Illinois 61265

Generated 10/20/2023 2:40:41 PM Revision 2

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-265711-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Job Notes

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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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Revision 2

Authorized for release by
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Job ID: 310-265711-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-265711-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/27/2023 9:20 AM. 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 1.6°C, 1.7°C, 1.9°C and 6.0°C

HPLC/IC
Method 9056A_ORGFM_28D: The continuing calibration verification (CCV) associated with batch 400-644248 recovered above the upper control limit for Bromate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 400-644248/39), (CCV 400-644248/51) and (CCV 400-644248/56).

Method 9056A_ORGFM_28D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 400-644248 recovered outside control limits for the following analytes: Bromate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 9056A_ORGFM_28D: The continuing calibration verification (CCV) associated with batch 400-644502 recovered above the upper control limit for Bromate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 9056A_ORGFM_28D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 400-644502 recovered outside control limits for the following analytes: Bromate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 9056A_ORGFM_28D: The continuing calibration verification (CCV) associated with batch 400-644513 recovered above the upper control limit for Bromate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 9056A_ORGFM_28D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 400-644513 recovered outside control limits for the following analytes: Bromate. 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
Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: MW-18 (310-265711-3), MW-4L (310-265711-4), MW-4 (310-265711-5) and MW-11 (310-265711-15). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B: The following sample was diluted due to the nature of the sample matrix: MW-11 (310-265711-15). Elevated reporting limits (RLs) are provided.

Job ID: 310-265711-1 (Continued)

Laboratory: Eurofins Cedar Falls (Continued)

Method 6020B: The continuing calibration verification (CCV) associated with batch 310-402442 recovered above the upper control limit for Lithium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: MW-1B (310-265711-12).

Method 6020B: The following sample was diluted due to the nature of the sample matrix: MW-14 (310-265711-6). Elevated reporting limits (RLs) are provided.

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: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-265711-1	MW-12	Water	09/26/23 07:40	09/27/23 09:20
310-265711-2	MW-5	Water	09/26/23 08:15	09/27/23 09:20
310-265711-3	MW-18	Water	09/26/23 08:40	09/27/23 09:20
310-265711-4	MW-4L	Water	09/26/23 08:50	09/27/23 09:20
310-265711-5	MW-4	Water	09/26/23 09:10	09/27/23 09:20
310-265711-6	MW-14	Water	09/26/23 09:40	09/27/23 09:20
310-265711-7	MW-7	Water	09/26/23 10:10	09/27/23 09:20
310-265711-8	MW-19	Water	09/26/23 10:45	09/27/23 09:20
310-265711-9	MW-Dup	Water	09/26/23 10:45	09/27/23 09:20
310-265711-10	MW-21	Water	09/26/23 11:25	09/27/23 09:20
310-265711-11	MW-1A	Water	09/26/23 11:50	09/27/23 09:20
310-265711-12	MW-1B	Water	09/26/23 12:00	09/27/23 09:20
310-265711-13	MW-2A	Water	09/26/23 12:45	09/27/23 09:20
310-265711-14	MW-3L	Water	09/26/23 13:15	09/27/23 09:20
310-265711-15	MW-11	Water	09/26/23 13:40	09/27/23 09:20
310-265711-16	Q-Sump	Water	09/26/23 14:20	09/27/23 09:20
310-265711-17	MW-16L	Water	09/26/23 15:00	09/27/23 09:20
310-265711-18	MW-16	Water	09/26/23 15:15	09/27/23 09:20
310-265711-19	MW-15	Water	09/26/23 15:55	09/27/23 09:20
310-265711-20	MW-13	Water	09/26/23 15:35	09/27/23 09:20
310-265711-21	MW-20	Water	09/26/23 16:15	09/27/23 09:20

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-12 — Lab Sample ID: 310-265711-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	83.5		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.509		0.200		mg/L	1		9056A	Total/NA
Sulfate	192		50.0		mg/L	50		9056A	Total/NA
Barium	0.0728		0.00200		mg/L	1		6020B	Total/NA
Boron	0.861		0.100		mg/L	1		6020B	Total/NA
Cadmium	0.000217		0.000200		mg/L	1		6020B	Total/NA
Calcium	111		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00357		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000515		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0165	F1	0.0100		mg/L	1		6020B	Total/NA
Magnesium	59.8		0.500		mg/L	1		6020B	Total/NA
Manganese	1.42		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00836		0.00500		mg/L	1		6020B	Total/NA
Potassium	9.40		0.500		mg/L	1		6020B	Total/NA
Sodium	53.7		1.00		mg/L	1		6020B	Total/NA
Thallium	0.00840	F1	0.00100		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	357		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	357		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	762		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 310-265711-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	444		100		mg/L	100		9056A	Total/NA
Fluoride	1.04		0.200		mg/L	1		9056A	Total/NA
Sulfate	805		100		mg/L	100		9056A	Total/NA
Barium	0.0338		0.00200		mg/L	1		6020B	Total/NA
Calcium	392		2.00		mg/L	4		6020B	Total/NA
Cobalt	0.000782		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.103		0.0100		mg/L	1		6020B	Total/NA
Magnesium	130		2.00		mg/L	4		6020B	Total/NA
Manganese	0.423		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00612		0.00500		mg/L	1		6020B	Total/NA
Potassium	252		2.00		mg/L	4		6020B	Total/NA
Sodium	48.5		1.00		mg/L	1		6020B	Total/NA
Thallium	0.0495		0.00400		mg/L	4		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	374		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	374		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2510		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-18 — Lab Sample ID: 310-265711-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1490		200		mg/L	200		9056A	Total/NA
Fluoride	7.28		0.200		mg/L	1		9056A	Total/NA
Sulfate	3080		200		mg/L	200		9056A	Total/NA
Arsenic	0.0113		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0107		0.00200		mg/L	1		6020B	Total/NA
Lithium	0.803		0.400		mg/L	40		6020B	Total/NA
Molybdenum	0.184		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00828		0.00500		mg/L	1		6020B	Total/NA
Potassium	5020		50.0		mg/L	100		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-18 (Continued) — Lab Sample ID: 310-265711-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	434		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.162		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1590		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	85.7		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1510		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000		500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4L — Lab Sample ID: 310-265711-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1590		200		mg/L	200		9056A	Total/NA
Fluoride	7.35		0.200		mg/L	1		9056A	Total/NA
Sulfate	3280		200		mg/L	200		9056A	Total/NA
Arsenic	0.00884		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0138		0.00200		mg/L	1		6020B	Total/NA
Lithium	0.643		0.280		mg/L	28		6020B	Total/NA
Molybdenum	0.170		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00826		0.00500		mg/L	1		6020B	Total/NA
Potassium	4660		50.0		mg/L	100		6020B	Total/NA
Sodium	424		4.00		mg/L	4		6020B	Total/NA
Total Phosphorus as P	0.167		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1510		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	124		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1390		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12400		500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 310-265711-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1120		200		mg/L	200		9056A	Total/NA
Fluoride	5.14		0.200		mg/L	1		9056A	Total/NA
Sulfate	1930		200		mg/L	200		9056A	Total/NA
Arsenic	0.0358		0.00200		mg/L	1		6020B	Total/NA
Barium	0.00888		0.00200		mg/L	1		6020B	Total/NA
Calcium	2.85		2.00		mg/L	4		6020B	Total/NA
Lithium	0.447		0.280		mg/L	28		6020B	Total/NA
Manganese	0.0684		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.121		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.0114		0.00500		mg/L	1		6020B	Total/NA
Potassium	3150		50.0		mg/L	100		6020B	Total/NA
Sodium	264		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.215		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1460		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	56.5		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1410		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7780		500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 310-265711-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	515		200		mg/L	200		9056A	Total/NA
Fluoride	0.553		0.200		mg/L	1		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-14 (Continued) — Lab Sample ID: 310-265711-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2590		200		mg/L	200		9056A	Total/NA
Barium	0.0375		0.00200		mg/L	1		6020B	Total/NA
Calcium	211		2.00		mg/L	4		6020B	Total/NA
Cobalt	0.00257		0.00200		mg/L	4		6020B	Total/NA
Magnesium	115		2.00		mg/L	4		6020B	Total/NA
Manganese	0.282		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0895		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00569		0.00500		mg/L	1		6020B	Total/NA
Potassium	1670		14.0		mg/L	28		6020B	Total/NA
Sodium	378		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	279		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	279		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5980		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 310-265711-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.89		1.00		mg/L	1		9056A	Total/NA
Sulfate	147		5.00		mg/L	5		9056A	Total/NA
Antimony	0.00336		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0828		0.00200		mg/L	1		6020B	Total/NA
Boron	0.100		0.100		mg/L	1		6020B	Total/NA
Calcium	51.4		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0811		0.0100		mg/L	1		6020B	Total/NA
Magnesium	3.70		0.500		mg/L	1		6020B	Total/NA
Molybdenum	0.00389		0.00200		mg/L	1		6020B	Total/NA
Potassium	16.7		0.500		mg/L	1		6020B	Total/NA
Sodium	25.6		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	59.4		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	59.4		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	338		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-265711-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.11		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.220		0.200		mg/L	1		9056A	Total/NA
Sulfate	31.8		1.00		mg/L	1		9056A	Total/NA
Barium	0.116		0.00200		mg/L	1		6020B	Total/NA
Boron	0.266		0.100		mg/L	1		6020B	Total/NA
Calcium	91.2		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00331		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000611		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0348		0.0100		mg/L	1		6020B	Total/NA
Magnesium	36.4		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0417		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.61		0.500		mg/L	1		6020B	Total/NA
Sodium	18.1		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.222		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	396		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	396		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	394		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-Dup — Lab Sample ID: 310-265711-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.66		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.216		0.200		mg/L	1		9056A	Total/NA
Sulfate	31.0		1.00		mg/L	1		9056A	Total/NA
Barium	0.118		0.00200		mg/L	1		6020B	Total/NA
Boron	0.275		0.100		mg/L	1		6020B	Total/NA
Calcium	91.4		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00383		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000731		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0349		0.0100		mg/L	1		6020B	Total/NA
Magnesium	41.2		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0519		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.38		0.500		mg/L	1		6020B	Total/NA
Sodium	21.4		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.246		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	398		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	398		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	396		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 310-265711-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.19		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.240		0.200		mg/L	1		9056A	Total/NA
Sulfate	25.6		1.00		mg/L	1		9056A	Total/NA
Aluminum	0.389		0.0500		mg/L	1		6020B	Total/NA
Barium	0.141		0.00200		mg/L	1		6020B	Total/NA
Boron	0.239		0.100		mg/L	1		6020B	Total/NA
Calcium	98.3		0.500		mg/L	1		6020B	Total/NA
Lead	0.00143		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0312		0.0100		mg/L	1		6020B	Total/NA
Magnesium	40.8		0.500		mg/L	1		6020B	Total/NA
Manganese	0.112		0.0100		mg/L	1		6020B	Total/NA
Potassium	3.55		0.500		mg/L	1		6020B	Total/NA
Sodium	20.1		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.231		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	380		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	380		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	398		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1A — Lab Sample ID: 310-265711-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.21		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.816		0.200		mg/L	1		9056A	Total/NA
Sulfate	19.9		1.00		mg/L	1		9056A	Total/NA
Aluminum	0.0606		0.0500		mg/L	1		6020B	Total/NA
Barium	0.115		0.00200		mg/L	1		6020B	Total/NA
Boron	1.22		0.100		mg/L	1		6020B	Total/NA
Calcium	67.5		0.500		mg/L	1		6020B	Total/NA
Lead	0.000583		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.105		0.0100		mg/L	1		6020B	Total/NA
Magnesium	38.7		0.500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1A (Continued) — Lab Sample ID: 310-265711-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.0559		0.0100		mg/L	1		6020B	Total/NA
Potassium	11.5		0.500		mg/L	1		6020B	Total/NA
Sodium	36.4		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	402		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	402		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	422		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1B — Lab Sample ID: 310-265711-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.90		1.00		mg/L	1		9056A	Total/NA
Sulfate	305		50.0		mg/L	50		9056A	Total/NA
Aluminum	0.0795		0.0500		mg/L	1		6020B	Total/NA
Barium	0.0491		0.00200		mg/L	1		6020B	Total/NA
Boron	0.110		0.100		mg/L	1		6020B	Total/NA
Calcium	140		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000578		0.000500		mg/L	1		6020B	Total/NA
Magnesium	60.2		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0873		0.0100		mg/L	1		6020B	Total/NA
Potassium	5.89		0.500		mg/L	1		6020B	Total/NA
Sodium	12.1		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	394		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	394		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	882		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2A — Lab Sample ID: 310-265711-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34.7		1.00		mg/L	1		9056A	Total/NA
Sulfate	194		50.0		mg/L	50		9056A	Total/NA
Barium	0.0545		0.00200		mg/L	1		6020B	Total/NA
Boron	0.108		0.100		mg/L	1		6020B	Total/NA
Calcium	135		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000551		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0149		0.0100		mg/L	1		6020B	Total/NA
Magnesium	47.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0686		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00599		0.00500		mg/L	1		6020B	Total/NA
Potassium	5.46		0.500		mg/L	1		6020B	Total/NA
Sodium	25.6		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	306		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	306		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	682		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3L — Lab Sample ID: 310-265711-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.84		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.271		0.200		mg/L	1		9056A	Total/NA
Sulfate	47.6		1.00		mg/L	1		9056A	Total/NA
Barium	0.0679		0.00200		mg/L	1		6020B	Total/NA
Boron	0.256		0.100		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-3L (Continued) — Lab Sample ID: 310-265711-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	104		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000616		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0346		0.0100		mg/L	1		6020B	Total/NA
Magnesium	47.6		0.500		mg/L	1		6020B	Total/NA
Manganese	0.167		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.75		0.500		mg/L	1		6020B	Total/NA
Sodium	23.4		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	378		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	378		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	440		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 310-265711-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1380		200		mg/L	200		9056A	Total/NA
Fluoride	6.03		0.200		mg/L	1		9056A	Total/NA
Sulfate	2600		200		mg/L	200		9056A	Total/NA
Potassium	5470		50.0		mg/L	100		6020B	Total/NA
Sodium	447		100		mg/L	100		6020B	Total/NA
Total Phosphorus as P	0.197		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1450		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	53.1		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1400		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8980		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Q-Sump — Lab Sample ID: 310-265711-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	138		100		mg/L	100		9056A	Total/NA
Fluoride	0.604		0.200		mg/L	1		9056A	Total/NA
Sulfate	1050		100		mg/L	100		9056A	Total/NA
Barium	0.0391		0.00800		mg/L	4		6020B	Total/NA
Boron	0.611		0.400		mg/L	4		6020B	Total/NA
Calcium	233		2.00		mg/L	4		6020B	Total/NA
Lithium	0.0788		0.0100		mg/L	1		6020B	Total/NA
Magnesium	111		2.00		mg/L	4		6020B	Total/NA
Manganese	0.156		0.0400		mg/L	4		6020B	Total/NA
Potassium	157		2.00		mg/L	4		6020B	Total/NA
Sodium	54.6		4.00		mg/L	4		6020B	Total/NA
Total Phosphorus as P	0.116		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	205		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	205		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1930		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16L — Lab Sample ID: 310-265711-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.04		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.252		0.200		mg/L	1		9056A	Total/NA
Sulfate	30.8		1.00		mg/L	1		9056A	Total/NA
Aluminum	0.162		0.0500		mg/L	1		6020B	Total/NA
Barium	0.0655		0.00200		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-16L (Continued) — Lab Sample ID: 310-265711-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.260		0.100		mg/L	1		6020B	Total/NA
Calcium	75.4		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0258		0.0100		mg/L	1		6020B	Total/NA
Magnesium	34.1		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0912		0.0100		mg/L	1		6020B	Total/NA
Potassium	3.89		0.500		mg/L	1		6020B	Total/NA
Sodium	12.6		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	312		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	312		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	300		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 310-265711-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	128		100		mg/L	100		9056A	Total/NA
Fluoride	0.333		0.200		mg/L	1		9056A	Total/NA
Sulfate	630		100		mg/L	100		9056A	Total/NA
Barium	0.0587		0.00800		mg/L	4		6020B	Total/NA
Boron	0.456		0.400		mg/L	4		6020B	Total/NA
Calcium	161		2.00		mg/L	4		6020B	Total/NA
Lithium	0.0882		0.0400		mg/L	4		6020B	Total/NA
Magnesium	88.3		2.00		mg/L	4		6020B	Total/NA
Manganese	0.0577		0.0400		mg/L	4		6020B	Total/NA
Potassium	178		2.00		mg/L	4		6020B	Total/NA
Sodium	81.5		4.00		mg/L	4		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	322		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	322		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1420		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-265711-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23.0		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.567		0.200		mg/L	1		9056A	Total/NA
Sulfate	135		50.0		mg/L	50		9056A	Total/NA
Aluminum	0.258		0.0500		mg/L	1		6020B	Total/NA
Arsenic	0.00201		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0614		0.00200		mg/L	1		6020B	Total/NA
Boron	0.988		0.100		mg/L	1		6020B	Total/NA
Calcium	111		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00124		0.000500		mg/L	1		6020B	Total/NA
Lead	0.00179		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0670		0.0100		mg/L	1		6020B	Total/NA
Magnesium	60.1		0.500		mg/L	1		6020B	Total/NA
Manganese	0.258		0.0100		mg/L	1		6020B	Total/NA
Potassium	10.4		0.500		mg/L	1		6020B	Total/NA
Sodium	41.7		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	386		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	386		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	540		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-13 — Lab Sample ID: 310-265711-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	102		50.0		mg/L	50		9056A	Total/NA
Fluoride	0.269		0.200		mg/L	1		9056A	Total/NA
Sulfate	55.8		1.00		mg/L	1		9056A	Total/NA
Aluminum	0.111		0.0500		mg/L	1		6020B	Total/NA
Barium	0.0828		0.00200		mg/L	1		6020B	Total/NA
Boron	0.424		0.100		mg/L	1		6020B	Total/NA
Calcium	90.3		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00146		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0333		0.0100		mg/L	1		6020B	Total/NA
Magnesium	41.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.349		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00673		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00528		0.00500		mg/L	1		6020B	Total/NA
Potassium	12.3		0.500		mg/L	1		6020B	Total/NA
Sodium	83.6		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	363		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	363		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	548		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 310-265711-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.03		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.295		0.200		mg/L	1		9056A	Total/NA
Sulfate	33.5		1.00		mg/L	1		9056A	Total/NA
Aluminum	1.39		0.0500		mg/L	1		6020B	Total/NA
Barium	0.0782		0.00200		mg/L	1		6020B	Total/NA
Boron	0.408		0.100		mg/L	1		6020B	Total/NA
Calcium	86.3		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000526		0.000500		mg/L	1		6020B	Total/NA
Lead	0.0134		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0290		0.0100		mg/L	1		6020B	Total/NA
Magnesium	39.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0609		0.0100		mg/L	1		6020B	Total/NA
Potassium	7.32		0.500		mg/L	1		6020B	Total/NA
Sodium	19.7		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.131		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	360		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	360		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	318		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-12

Date Collected: 09/26/23 07:40
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/05/23 21:47	1
Chloride	**83.5**		1.00		mg/L			09/27/23 16:02	1
Fluoride	**0.509**		0.200		mg/L			09/27/23 16:02	1
Sulfate	**192**		50.0		mg/L			09/27/23 11:57	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 16:58	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 21:45	1
Barium	**0.0728**		0.00200		mg/L		09/29/23 09:00	10/11/23 21:45	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:45	1
Boron	**0.861**		0.100		mg/L		09/29/23 09:00	10/12/23 16:58	1
Cadmium	**0.000217**		0.000200		mg/L		09/29/23 09:00	10/11/23 21:45	1
Calcium	**111**		0.500		mg/L		09/29/23 09:00	10/12/23 16:58	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Cobalt	**0.00357**		0.000500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Lead	**0.000515**		0.000500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Lithium	**0.0165**	**F1**	0.0100		mg/L		09/29/23 09:00	10/13/23 12:38	1
Magnesium	**59.8**		0.500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Manganese	**1.42**		0.0100		mg/L		09/29/23 09:00	10/11/23 21:45	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 21:45	1
Nickel	**0.00836**		0.00500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Potassium	**9.40**		0.500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:45	1
Sodium	**53.7**		1.00		mg/L		09/29/23 09:00	10/11/23 21:45	1
Thallium	**0.00840**	**F1**	0.00100		mg/L		09/29/23 09:00	10/12/23 16:58	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:45	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 21:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/29/23 08:22	09/30/23 11:03	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**357**		5.00		mg/L			09/29/23 12:59	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**357**		5.00		mg/L			09/29/23 12:59	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 12:59	1
Total Dissolved Solids (SM 2540C)	**762**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-5

Date Collected: 09/26/23 08:15
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/05/23 22:07	1
Chloride	**444**		100		mg/L			09/27/23 12:09	100
Fluoride	**1.04**		0.200		mg/L			09/27/23 16:14	1
Sulfate	**805**		100		mg/L			09/27/23 12:09	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Antimony	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 17:08	4
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 21:56	1
Barium	**0.0338**		0.00200		mg/L		09/29/23 09:00	10/11/23 21:56	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:56	1
Boron	<0.400		0.400		mg/L		09/29/23 09:00	10/12/23 17:08	4
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 21:56	1
Calcium	**392**		2.00		mg/L		09/29/23 09:00	10/12/23 17:08	4
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Cobalt	**0.000782**		0.000500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Lithium	**0.103**		0.0100		mg/L		09/29/23 09:00	10/13/23 17:09	1
Magnesium	**130**		2.00		mg/L		09/29/23 09:00	10/12/23 17:08	4
Manganese	**0.423**		0.0100		mg/L		09/29/23 09:00	10/11/23 21:56	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 21:56	1
Nickel	**0.00612**		0.00500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Potassium	**252**		2.00		mg/L		09/29/23 09:00	10/12/23 17:08	4
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:56	1
Sodium	**48.5**		1.00		mg/L		09/29/23 09:00	10/11/23 21:56	1
Thallium	**0.0495**		0.00400		mg/L		09/29/23 09:00	10/12/23 17:08	4
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:56	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 21:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		09/29/23 09:01	09/30/23 12:00	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**374**		5.00		mg/L			09/29/23 13:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**374**		5.00		mg/L			09/29/23 13:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 13:09	1
Total Dissolved Solids (SM 2540C)	**2510**		250		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-18

Date Collected: 09/26/23 08:40
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/05/23 23:06	1
Chloride	**1490**		200		mg/L			09/27/23 12:46	200
Fluoride	**7.28**		0.200		mg/L			09/27/23 17:02	1
Sulfate	**3080**		200		mg/L			09/27/23 12:46	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Antimony	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 17:11	4
Arsenic	**0.0113**		0.00200		mg/L		09/29/23 09:00	10/11/23 21:59	1
Barium	**0.0107**		0.00200		mg/L		09/29/23 09:00	10/11/23 21:59	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:59	1
Boron	<0.400		0.400		mg/L		09/29/23 09:00	10/12/23 17:11	4
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 21:59	1
Calcium	<2.00		2.00		mg/L		09/29/23 09:00	10/12/23 17:11	4
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Cobalt	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Lithium	**0.803**		0.400		mg/L		09/29/23 09:00	10/13/23 14:35	40
Magnesium	<0.500		0.500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Manganese	<0.0100		0.0100		mg/L		09/29/23 09:00	10/11/23 21:59	1
Molybdenum	**0.184**		0.00200		mg/L		09/29/23 09:00	10/11/23 21:59	1
Nickel	**0.00828**		0.00500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Potassium	**5020**		50.0		mg/L		09/29/23 09:00	10/13/23 15:21	100
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:59	1
Sodium	**434**		1.00		mg/L		09/29/23 09:00	10/11/23 21:59	1
Thallium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 17:11	4
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:59	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 21:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.162**		0.100		mg/L		10/02/23 09:12	10/02/23 22:46	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1590**		5.00		mg/L			09/29/23 13:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**85.7**		5.00		mg/L			09/29/23 13:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1510**		5.00		mg/L			09/29/23 13:19	1
Total Dissolved Solids (SM 2540C)	**11000**		500		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-4L

Date Collected: 09/26/23 08:50
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-4

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/05/23 23:26	1
Chloride	**1590**		200		mg/L			09/27/23 12:58	200
Fluoride	**7.35**		0.200		mg/L			09/27/23 17:14	1
Sulfate	**3280**		200		mg/L			09/27/23 12:58	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Antimony	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 17:15	4
Arsenic	**0.00884**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:01	1
Barium	**0.0138**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:01	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 22:01	1
Boron	<0.400		0.400		mg/L		09/29/23 09:00	10/12/23 17:15	4
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 22:01	1
Calcium	<2.00		2.00		mg/L		09/29/23 09:00	10/12/23 17:15	4
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Cobalt	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Lithium	**0.643**		0.280		mg/L		09/29/23 09:00	10/13/23 13:10	28
Magnesium	<0.500		0.500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Manganese	<0.0100		0.0100		mg/L		09/29/23 09:00	10/11/23 22:01	1
Molybdenum	**0.170**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:01	1
Nickel	**0.00826**		0.00500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Potassium	**4660**		50.0		mg/L		09/29/23 09:00	10/13/23 15:24	100
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 22:01	1
Sodium	**424**		4.00		mg/L		09/29/23 09:00	10/12/23 17:15	4
Thallium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 17:15	4
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:01	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 22:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.167**		0.100		mg/L		09/29/23 09:21	09/30/23 12:11	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1510**		5.00		mg/L			09/29/23 13:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**124**		5.00		mg/L			09/29/23 13:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1390**		5.00		mg/L			09/29/23 13:39	1
Total Dissolved Solids (SM 2540C)	**12400**		500		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-4

Date Collected: 09/26/23 09:10
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/05/23 23:46	1
Chloride	**1120**		200		mg/L			09/27/23 13:10	200
Fluoride	**5.14**		0.200		mg/L			09/27/23 17:27	1
Sulfate	**1930**		200		mg/L			09/27/23 13:10	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Antimony	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 17:18	4
Arsenic	**0.0358**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:19	1
Barium	**0.00888**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:19	1
Beryllium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 17:18	4
Boron	<0.400		0.400		mg/L		09/29/23 09:00	10/12/23 17:18	4
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 22:19	1
Calcium	**2.85**		2.00		mg/L		09/29/23 09:00	10/12/23 17:18	4
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Cobalt	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:18	4
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Lithium	**0.447**		0.280		mg/L		09/29/23 09:00	10/13/23 13:12	28
Magnesium	<0.500		0.500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Manganese	**0.0684**		0.0100		mg/L		09/29/23 09:00	10/11/23 22:19	1
Molybdenum	**0.121**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:19	1
Nickel	**0.0114**		0.00500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Potassium	**3150**		50.0		mg/L		09/29/23 09:00	10/13/23 15:26	100
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 22:19	1
Sodium	**264**		1.00		mg/L		09/29/23 09:00	10/11/23 22:19	1
Thallium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 17:18	4
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:19	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 22:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.215**		0.100		mg/L		10/02/23 09:12	10/02/23 22:49	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1460**		5.00		mg/L			09/29/23 13:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**56.5**		5.00		mg/L			09/29/23 13:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1410**		5.00		mg/L			09/29/23 13:58	1
Total Dissolved Solids (SM 2540C)	**7780**		500		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-14

Date Collected: 09/26/23 09:40
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/06/23 22:34	1
Chloride	**515**		200		mg/L			09/27/23 13:22	200
Fluoride	**0.553**		0.200		mg/L			09/27/23 17:39	1
Sulfate	**2590**		200		mg/L			09/27/23 13:22	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 22:21	1
Antimony	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 17:22	4
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 22:21	1
Barium	**0.0375**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:21	1
Beryllium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 17:22	4
Boron	<0.400		0.400		mg/L		09/29/23 09:00	10/12/23 17:22	4
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 22:21	1
Calcium	**211**		2.00		mg/L		09/29/23 09:00	10/12/23 17:22	4
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:21	1
Cobalt	**0.00257**		0.00200		mg/L		09/29/23 09:00	10/12/23 17:22	4
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:21	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 22:21	1
Lithium	<0.280		0.280		mg/L		09/29/23 09:00	10/13/23 13:15	28
Magnesium	**115**		2.00		mg/L		09/29/23 09:00	10/12/23 17:22	4
Manganese	**0.282**		0.0100		mg/L		09/29/23 09:00	10/11/23 22:21	1
Molybdenum	**0.0895**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:21	1
Nickel	**0.00569**		0.00500		mg/L		09/29/23 09:00	10/11/23 22:21	1
Potassium	**1670**		14.0		mg/L		09/29/23 09:00	10/13/23 13:15	28
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:21	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 22:21	1
Sodium	**378**		1.00		mg/L		09/29/23 09:00	10/11/23 22:21	1
Thallium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 17:22	4
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:21	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 22:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:47	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**279**		5.00		mg/L			09/29/23 14:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**279**		5.00		mg/L			09/29/23 14:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 14:16	1
Total Dissolved Solids (SM 2540C)	**5980**		250		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-7

Date Collected: 09/26/23 10:10
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/06/23 22:54	1
Chloride	**7.89**		1.00		mg/L			09/27/23 17:51	1
Fluoride	<0.200		0.200		mg/L			09/27/23 17:51	1
Sulfate	**147**		5.00		mg/L			09/27/23 18:03	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Antimony	**0.00336**		0.00200		mg/L		09/29/23 09:00	10/12/23 17:25	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 22:24	1
Barium	**0.0828**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:24	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:25	1
Boron	**0.100**		0.100		mg/L		09/29/23 09:00	10/12/23 17:25	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 22:24	1
Calcium	**51.4**		0.500		mg/L		09/29/23 09:00	10/12/23 17:25	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Cobalt	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 17:25	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Lithium	**0.0811**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:17	1
Magnesium	**3.70**		0.500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Manganese	<0.0100		0.0100		mg/L		09/29/23 09:00	10/11/23 22:24	1
Molybdenum	**0.00389**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:24	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Potassium	**16.7**		0.500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 22:24	1
Sodium	**25.6**		1.00		mg/L		09/29/23 09:00	10/11/23 22:24	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:25	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:24	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 22:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 08:09	10/02/23 21:48	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**59.4**		5.00		mg/L			09/29/23 14:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**59.4**		5.00		mg/L			09/29/23 14:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 14:35	1
Total Dissolved Solids (SM 2540C)	**338**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-19

Date Collected: 09/26/23 10:45
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 00:53	1
Chloride	**3.11**		1.00		mg/L			09/27/23 18:15	1
Fluoride	**0.220**		0.200		mg/L			09/27/23 18:15	1
Sulfate	**31.8**		1.00		mg/L			09/27/23 18:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:49	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 22:26	1
Barium	**0.116**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:26	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:49	1
Boron	**0.266**		0.100		mg/L		09/29/23 09:00	10/12/23 17:49	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 22:26	1
Calcium	**91.2**		0.500		mg/L		09/29/23 09:00	10/12/23 17:49	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Cobalt	**0.00331**		0.000500		mg/L		09/29/23 09:00	10/12/23 17:49	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Lead	**0.000611**		0.000500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Lithium	**0.0348**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:19	1
Magnesium	**36.4**		0.500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Manganese	**0.0417**		0.0100		mg/L		09/29/23 09:00	10/11/23 22:26	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 22:26	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Potassium	**4.61**		0.500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 22:26	1
Sodium	**18.1**		1.00		mg/L		09/29/23 09:00	10/11/23 22:26	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:49	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:26	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 22:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.222**		0.100		mg/L		10/02/23 09:12	10/02/23 22:47	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**396**		5.00		mg/L			09/29/23 14:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**396**		5.00		mg/L			09/29/23 14:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 14:42	1
Total Dissolved Solids (SM 2540C)	**394**		50.0		mg/L			09/27/23 16:12	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-Dup

Date Collected: 09/26/23 10:45
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 01:13	1
Chloride	**2.66**		1.00		mg/L			09/27/23 18:27	1
Fluoride	**0.216**		0.200		mg/L			09/27/23 18:27	1
Sulfate	**31.0**		1.00		mg/L			09/27/23 18:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:52	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:52	1
Barium	**0.118**		0.00200		mg/L		09/29/23 09:00	10/12/23 17:52	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:52	1
Boron	**0.275**		0.100		mg/L		09/29/23 09:00	10/12/23 17:52	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/12/23 17:52	1
Calcium	**91.4**		0.500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Cobalt	**0.00383**		0.000500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Lead	**0.000731**		0.000500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Lithium	**0.0349**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:22	1
Magnesium	**41.2**		0.500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Manganese	**0.0519**		0.0100		mg/L		09/29/23 09:00	10/12/23 17:52	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:52	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Potassium	**4.38**		0.500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:52	1
Sodium	**21.4**		1.00		mg/L		09/29/23 09:00	10/12/23 17:52	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:52	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:52	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 17:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.246**		0.100		mg/L		10/02/23 09:12	10/02/23 22:48	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**398**		5.00		mg/L			09/29/23 15:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**398**		5.00		mg/L			09/29/23 15:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 15:03	1
Total Dissolved Solids (SM 2540C)	**396**		50.0		mg/L			09/27/23 16:12	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-21

Date Collected: 09/26/23 11:25
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-10

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 01:32	1
Chloride	**1.19**		1.00		mg/L			09/27/23 19:52	1
Fluoride	**0.240**		0.200		mg/L			09/27/23 19:52	1
Sulfate	**25.6**		1.00		mg/L			09/27/23 19:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.389**		0.0500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:56	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:56	1
Barium	**0.141**		0.00200		mg/L		09/29/23 09:00	10/12/23 17:56	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:56	1
Boron	**0.239**		0.100		mg/L		09/29/23 09:00	10/12/23 17:56	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/12/23 17:56	1
Calcium	**98.3**		0.500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Cobalt	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Lead	**0.00143**		0.000500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Lithium	**0.0312**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:24	1
Magnesium	**40.8**		0.500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Manganese	**0.112**		0.0100		mg/L		09/29/23 09:00	10/12/23 17:56	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:56	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Potassium	**3.55**		0.500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:56	1
Sodium	**20.1**		1.00		mg/L		09/29/23 09:00	10/12/23 17:56	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:56	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 17:56	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 17:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.231**		0.100		mg/L		10/02/23 09:12	10/02/23 22:48	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**380**		5.00		mg/L			09/29/23 15:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**380**		5.00		mg/L			09/29/23 15:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 15:14	1
Total Dissolved Solids (SM 2540C)	**398**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-1A

Date Collected: 09/26/23 11:50
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-11

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 01:52	1
Chloride	**2.21**		1.00		mg/L			09/27/23 20:28	1
Fluoride	**0.816**		0.200		mg/L			09/27/23 20:28	1
Sulfate	**19.9**		1.00		mg/L			09/27/23 20:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.0606**		0.0500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 17:59	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 22:34	1
Barium	**0.115**		0.00200		mg/L		09/29/23 09:00	10/11/23 22:34	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:59	1
Boron	**1.22**		0.100		mg/L		09/29/23 09:00	10/12/23 17:59	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/11/23 22:34	1
Calcium	**67.5**		0.500		mg/L		09/29/23 09:00	10/12/23 17:59	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Cobalt	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 17:59	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Lead	**0.000583**		0.000500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Lithium	**0.105**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:26	1
Magnesium	**38.7**		0.500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Manganese	**0.0559**		0.0100		mg/L		09/29/23 09:00	10/11/23 22:34	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 22:34	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Potassium	**11.5**		0.500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 22:34	1
Sodium	**36.4**		1.00		mg/L		09/29/23 09:00	10/11/23 22:34	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 17:59	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 22:34	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 22:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:50	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**402**		5.00		mg/L			09/29/23 15:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**402**		5.00		mg/L			09/29/23 15:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 15:24	1
Total Dissolved Solids (SM 2540C)	**422**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-1B

Date Collected: 09/26/23 12:00
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 02:12	1
Chloride	**5.90**		1.00		mg/L			09/27/23 20:40	1
Fluoride	<0.200		0.200		mg/L			09/27/23 20:40	1
Sulfate	**305**		50.0		mg/L			09/28/23 13:34	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.0795**		0.0500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:02	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:02	1
Barium	**0.0491**		0.00200		mg/L		09/29/23 09:00	10/12/23 18:02	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:02	1
Boron	**0.110**		0.100		mg/L		09/29/23 09:00	10/12/23 18:02	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/12/23 18:02	1
Calcium	**140**		0.500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Cobalt	**0.000578**		0.000500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Lithium	<0.0100	^+	0.0100		mg/L		09/29/23 09:00	10/12/23 18:02	1
Magnesium	**60.2**		0.500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Manganese	**0.0873**		0.0100		mg/L		09/29/23 09:00	10/12/23 18:02	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:02	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Potassium	**5.89**		0.500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:02	1
Sodium	**12.1**		1.00		mg/L		09/29/23 09:00	10/12/23 18:02	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:02	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:02	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:51	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**394**		5.00		mg/L			09/29/23 15:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**394**		5.00		mg/L			09/29/23 15:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 15:34	1
Total Dissolved Solids (SM 2540C)	**882**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-2A

Date Collected: 09/26/23 12:45
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-13

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 02:32	1
Chloride	**34.7**		1.00		mg/L			09/27/23 20:52	1
Fluoride	<0.200		0.200		mg/L			09/27/23 20:52	1
Sulfate	**194**		50.0		mg/L			09/28/23 13:46	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:09	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:09	1
Barium	**0.0545**		0.00200		mg/L		09/29/23 09:00	10/12/23 18:09	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:09	1
Boron	**0.108**		0.100		mg/L		09/29/23 09:00	10/12/23 18:09	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/12/23 18:09	1
Calcium	**135**		0.500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Cobalt	**0.000551**		0.000500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Lithium	**0.0149**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:29	1
Magnesium	**47.9**		0.500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Manganese	**0.0686**		0.0100		mg/L		09/29/23 09:00	10/12/23 18:09	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:09	1
Nickel	**0.00599**		0.00500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Potassium	**5.46**		0.500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:09	1
Sodium	**25.6**		1.00		mg/L		09/29/23 09:00	10/12/23 18:09	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:09	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:09	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:52	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**306**		5.00		mg/L			09/29/23 15:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**306**		5.00		mg/L			09/29/23 15:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 15:45	1
Total Dissolved Solids (SM 2540C)	**682**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-3L

Date Collected: 09/26/23 13:15
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-14

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 02:52	1
Chloride	**9.84**		1.00		mg/L			09/27/23 21:04	1
Fluoride	**0.271**		0.200		mg/L			09/27/23 21:04	1
Sulfate	**47.6**		1.00		mg/L			09/27/23 21:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:13	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:13	1
Barium	**0.0679**		0.00200		mg/L		09/29/23 09:00	10/12/23 18:13	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:13	1
Boron	**0.256**		0.100		mg/L		09/29/23 09:00	10/12/23 18:13	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/12/23 18:13	1
Calcium	**104**		0.500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Cobalt	**0.000616**		0.000500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Lithium	**0.0346**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:31	1
Magnesium	**47.6**		0.500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Manganese	**0.167**		0.0100		mg/L		09/29/23 09:00	10/12/23 18:13	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:13	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Potassium	**4.75**		0.500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:13	1
Sodium	**23.4**		1.00		mg/L		09/29/23 09:00	10/12/23 18:13	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:13	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:13	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:51	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**378**		5.00		mg/L			09/29/23 15:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**378**		5.00		mg/L			09/29/23 15:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 15:54	1
Total Dissolved Solids (SM 2540C)	**440**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-11

Date Collected: 09/26/23 13:40
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-15

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 03:51	1
Chloride	**1380**		200		mg/L			09/27/23 13:58	200
Fluoride	**6.03**		0.200		mg/L			09/27/23 21:16	1
Sulfate	**2600**		200		mg/L			09/27/23 13:58	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<5.00		5.00		mg/L		09/29/23 09:00	10/12/23 18:16	100
Antimony	<0.200		0.200		mg/L		09/29/23 09:00	10/12/23 18:16	100
Arsenic	<0.200		0.200		mg/L		09/29/23 09:00	10/12/23 18:16	100
Barium	<0.200		0.200		mg/L		09/29/23 09:00	10/12/23 18:16	100
Beryllium	<0.100		0.100		mg/L		09/29/23 09:00	10/12/23 18:16	100
Boron	<10.0		10.0		mg/L		09/29/23 09:00	10/12/23 18:16	100
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/13/23 13:43	1
Calcium	<50.0		50.0		mg/L		09/29/23 09:00	10/12/23 18:16	100
Chromium	<0.500		0.500		mg/L		09/29/23 09:00	10/12/23 18:16	100
Cobalt	<0.0500		0.0500		mg/L		09/29/23 09:00	10/12/23 18:16	100
Copper	<0.500		0.500		mg/L		09/29/23 09:00	10/12/23 18:16	100
Lead	<0.0500		0.0500		mg/L		09/29/23 09:00	10/12/23 18:16	100
Lithium	<1.00	^+	1.00		mg/L		09/29/23 09:00	10/12/23 18:16	100
Magnesium	<50.0		50.0		mg/L		09/29/23 09:00	10/12/23 18:16	100
Manganese	<1.00		1.00		mg/L		09/29/23 09:00	10/12/23 18:16	100
Molybdenum	<0.200		0.200		mg/L		09/29/23 09:00	10/12/23 18:16	100
Nickel	<0.500		0.500		mg/L		09/29/23 09:00	10/12/23 18:16	100
Potassium	**5470**		50.0		mg/L		09/29/23 09:00	10/12/23 18:16	100
Selenium	<0.500		0.500		mg/L		09/29/23 09:00	10/12/23 18:16	100
Silver	<0.100		0.100		mg/L		09/29/23 09:00	10/12/23 18:16	100
Sodium	**447**		100		mg/L		09/29/23 09:00	10/12/23 18:16	100
Thallium	<0.100		0.100		mg/L		09/29/23 09:00	10/12/23 18:16	100
Vanadium	<0.500		0.500		mg/L		09/29/23 09:00	10/12/23 18:16	100
Zinc	<2.00		2.00		mg/L		09/29/23 09:00	10/12/23 18:16	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.197**		0.100		mg/L		10/02/23 09:12	10/02/23 22:51	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1450**		5.00		mg/L			09/29/23 16:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**53.1**		5.00		mg/L			09/29/23 16:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1400**		5.00		mg/L			09/29/23 16:05	1
Total Dissolved Solids (SM 2540C)	**8980**		250		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: Q-Sump

Date Collected: 09/26/23 14:20
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-16

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 04:11	1
Chloride	**138**		100		mg/L			09/28/23 14:10	100
Fluoride	**0.604**		0.200		mg/L			09/27/23 22:04	1
Sulfate	**1050**		100		mg/L			09/28/23 14:10	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.200		0.200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Antimony	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 18:19	4
Arsenic	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 18:19	4
Barium	**0.0391**		0.00800		mg/L		09/29/23 09:00	10/12/23 18:19	4
Beryllium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 18:19	4
Boron	**0.611**		0.400		mg/L		09/29/23 09:00	10/12/23 18:19	4
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/13/23 13:45	1
Calcium	**233**		2.00		mg/L		09/29/23 09:00	10/12/23 18:19	4
Chromium	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Cobalt	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Copper	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Lead	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Lithium	**0.0788**		0.0100		mg/L		09/29/23 09:00	10/13/23 13:45	1
Magnesium	**111**		2.00		mg/L		09/29/23 09:00	10/12/23 18:19	4
Manganese	**0.156**		0.0400		mg/L		09/29/23 09:00	10/12/23 18:19	4
Molybdenum	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 18:19	4
Nickel	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Potassium	**157**		2.00		mg/L		09/29/23 09:00	10/12/23 18:19	4
Selenium	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Silver	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 18:19	4
Sodium	**54.6**		4.00		mg/L		09/29/23 09:00	10/12/23 18:19	4
Thallium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 18:19	4
Vanadium	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:19	4
Zinc	<0.0800		0.0800		mg/L		09/29/23 09:00	10/12/23 18:19	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.116**		0.100		mg/L		10/02/23 09:12	10/02/23 22:53	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**205**		5.00		mg/L			09/29/23 17:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**205**		5.00		mg/L			09/29/23 17:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 17:44	1
Total Dissolved Solids (SM 2540C)	**1930**		50.0		mg/L			09/28/23 14:35	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-16L

Date Collected: 09/26/23 15:00
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-17

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 04:31	1
Chloride	**1.04**		1.00		mg/L			09/27/23 22:16	1
Fluoride	**0.252**		0.200		mg/L			09/27/23 22:16	1
Sulfate	**30.8**		1.00		mg/L			09/27/23 22:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.162**		0.0500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:43	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:43	1
Barium	**0.0655**		0.00200		mg/L		09/29/23 09:00	10/12/23 18:43	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:43	1
Boron	**0.260**		0.100		mg/L		09/29/23 09:00	10/12/23 18:43	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/12/23 18:43	1
Calcium	**75.4**		0.500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Cobalt	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Lithium	**0.0258**		0.0100		mg/L		09/29/23 09:00	10/12/23 18:43	1
Magnesium	**34.1**		0.500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Manganese	**0.0912**		0.0100		mg/L		09/29/23 09:00	10/12/23 18:43	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:43	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Potassium	**3.89**		0.500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:43	1
Sodium	**12.6**		1.00		mg/L		09/29/23 09:00	10/12/23 18:43	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:43	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:43	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:52	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**312**		5.00		mg/L			09/29/23 17:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**312**		5.00		mg/L			09/29/23 17:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 17:53	1
Total Dissolved Solids (SM 2540C)	**300**		50.0		mg/L			09/27/23 16:12	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-16

Date Collected: 09/26/23 15:15
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-18

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 04:50	1
Chloride	**128**		100		mg/L			09/28/23 14:22	100
Fluoride	**0.333**		0.200		mg/L			09/27/23 22:28	1
Sulfate	**630**		100		mg/L			09/28/23 14:22	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.200		0.200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Antimony	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 18:47	4
Arsenic	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 18:47	4
Barium	**0.0587**		0.00800		mg/L		09/29/23 09:00	10/12/23 18:47	4
Beryllium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 18:47	4
Boron	**0.456**		0.400		mg/L		09/29/23 09:00	10/12/23 18:47	4
Cadmium	<0.000800		0.000800		mg/L		09/29/23 09:00	10/12/23 18:47	4
Calcium	**161**		2.00		mg/L		09/29/23 09:00	10/12/23 18:47	4
Chromium	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Cobalt	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Copper	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Lead	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Lithium	**0.0882**		0.0400		mg/L		09/29/23 09:00	10/12/23 18:47	4
Magnesium	**88.3**		2.00		mg/L		09/29/23 09:00	10/12/23 18:47	4
Manganese	**0.0577**		0.0400		mg/L		09/29/23 09:00	10/12/23 18:47	4
Molybdenum	<0.00800		0.00800		mg/L		09/29/23 09:00	10/12/23 18:47	4
Nickel	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Potassium	**178**		2.00		mg/L		09/29/23 09:00	10/12/23 18:47	4
Selenium	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Silver	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 18:47	4
Sodium	**81.5**		4.00		mg/L		09/29/23 09:00	10/12/23 18:47	4
Thallium	<0.00400		0.00400		mg/L		09/29/23 09:00	10/12/23 18:47	4
Vanadium	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:47	4
Zinc	<0.0800		0.0800		mg/L		09/29/23 09:00	10/12/23 18:47	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:53	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**322**		5.00		mg/L			09/29/23 18:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**322**		5.00		mg/L			09/29/23 18:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 18:02	1
Total Dissolved Solids (SM 2540C)	**1420**		50.0		mg/L			09/27/23 16:12	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-15

Date Collected: 09/26/23 15:55
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-19

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 05:10	1
Chloride	**23.0**		1.00		mg/L			09/27/23 22:40	1
Fluoride	**0.567**		0.200		mg/L			09/27/23 22:40	1
Sulfate	**135**		50.0		mg/L			09/28/23 14:34	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.258**		0.0500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:50	1
Arsenic	**0.00201**		0.00200		mg/L		09/29/23 09:00	10/12/23 18:50	1
Barium	**0.0614**		0.00200		mg/L		09/29/23 09:00	10/12/23 18:50	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:50	1
Boron	**0.988**		0.100		mg/L		09/29/23 09:00	10/12/23 18:50	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/12/23 18:50	1
Calcium	**111**		0.500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Cobalt	**0.00124**		0.000500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Lead	**0.00179**		0.000500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Lithium	**0.0670**		0.0100		mg/L		09/29/23 09:00	10/12/23 18:50	1
Magnesium	**60.1**		0.500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Manganese	**0.258**		0.0100		mg/L		09/29/23 09:00	10/12/23 18:50	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/12/23 18:50	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Potassium	**10.4**		0.500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:50	1
Sodium	**41.7**		1.00		mg/L		09/29/23 09:00	10/12/23 18:50	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/12/23 18:50	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/12/23 18:50	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/12/23 18:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:54	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**386**		5.00		mg/L			09/29/23 18:12	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**386**		5.00		mg/L			09/29/23 18:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 18:12	1
Total Dissolved Solids (SM 2540C)	**540**		50.0		mg/L			09/27/23 16:12	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-13

Date Collected: 09/26/23 15:35
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-20

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 05:30	1
Chloride	**102**		50.0		mg/L			09/28/23 15:11	50
Fluoride	**0.269**		0.200		mg/L			09/27/23 22:53	1
Sulfate	**55.8**		1.00		mg/L			09/27/23 22:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.111**		0.0500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Antimony	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 21:16	1
Arsenic	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 21:16	1
Barium	**0.0828**		0.00200		mg/L		10/02/23 09:45	10/12/23 21:16	1
Beryllium	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 21:16	1
Boron	**0.424**		0.100		mg/L		10/02/23 09:45	10/12/23 21:16	1
Cadmium	<0.000200		0.000200		mg/L		10/02/23 09:45	10/13/23 14:23	1
Calcium	**90.3**		0.500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Chromium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Cobalt	**0.00146**		0.000500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Copper	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Lead	<0.000500		0.000500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Lithium	**0.0333**		0.0100		mg/L		10/02/23 09:45	10/12/23 21:16	1
Magnesium	**41.9**		0.500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Manganese	**0.349**		0.0100		mg/L		10/02/23 09:45	10/12/23 21:16	1
Molybdenum	**0.00673**		0.00200		mg/L		10/02/23 09:45	10/13/23 14:23	1
Nickel	**0.00528**		0.00500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Potassium	**12.3**		0.500		mg/L		10/02/23 09:45	10/13/23 14:23	1
Selenium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Silver	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 21:16	1
Sodium	**83.6**		1.00		mg/L		10/02/23 09:45	10/12/23 21:16	1
Thallium	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 21:16	1
Vanadium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:16	1
Zinc	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:55	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**363**		5.00		mg/L			09/29/23 18:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**363**		5.00		mg/L			09/29/23 18:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 18:22	1
Total Dissolved Solids (SM 2540C)	**548**		50.0		mg/L			09/27/23 16:12	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-20

Date Collected: 09/26/23 16:15
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-21

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/07/23 05:50	1
Chloride	**5.03**		1.00		mg/L			09/27/23 23:05	1
Fluoride	**0.295**		0.200		mg/L			09/27/23 23:05	1
Sulfate	**33.5**		1.00		mg/L			09/27/23 23:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.39**		0.0500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Antimony	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 21:19	1
Arsenic	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 21:19	1
Barium	**0.0782**		0.00200		mg/L		10/02/23 09:45	10/12/23 21:19	1
Beryllium	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 21:19	1
Boron	**0.408**		0.100		mg/L		10/02/23 09:45	10/12/23 21:19	1
Cadmium	<0.000200		0.000200		mg/L		10/02/23 09:45	10/13/23 14:26	1
Calcium	**86.3**		0.500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Chromium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Cobalt	**0.000526**		0.000500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Copper	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Lead	**0.0134**		0.000500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Lithium	**0.0290**		0.0100		mg/L		10/02/23 09:45	10/12/23 21:19	1
Magnesium	**39.3**		0.500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Manganese	**0.0609**		0.0100		mg/L		10/02/23 09:45	10/12/23 21:19	1
Molybdenum	<0.00200		0.00200		mg/L		10/02/23 09:45	10/13/23 14:26	1
Nickel	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Potassium	**7.32**		0.500		mg/L		10/02/23 09:45	10/13/23 14:26	1
Selenium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Silver	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 21:19	1
Sodium	**19.7**		1.00		mg/L		10/02/23 09:45	10/12/23 21:19	1
Thallium	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 21:19	1
Vanadium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 21:19	1
Zinc	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.131**		0.100		mg/L		10/02/23 09:12	10/02/23 22:50	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**360**		5.00		mg/L			09/29/23 18:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**360**		5.00		mg/L			09/29/23 18:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 18:32	1
Total Dissolved Solids (SM 2540C)	**318**		50.0		mg/L			09/27/23 16:12	1

Definitions/Glossary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-400948/3
Matrix: Water
Analysis Batch: 400948

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			09/27/23 09:12	1
Fluoride	<0.200		0.200		mg/L			09/27/23 09:12	1
Sulfate	<1.00		1.00		mg/L			09/27/23 09:12	1

Lab Sample ID: LCS 310-400948/4
Matrix: Water
Analysis Batch: 400948

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.846		mg/L		98	90 - 110
Fluoride	2.00	2.003		mg/L		100	90 - 110
Sulfate	10.0	10.56		mg/L		106	90 - 110

Lab Sample ID: MB 310-401076/3
Matrix: Water
Analysis Batch: 401076

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			09/27/23 19:27	1
Fluoride	<0.200		0.200		mg/L			09/27/23 19:27	1
Sulfate	<1.00		1.00		mg/L			09/27/23 19:27	1

Lab Sample ID: LCS 310-401076/4
Matrix: Water
Analysis Batch: 401076

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.984		mg/L		100	90 - 110
Fluoride	2.00	2.043		mg/L		102	90 - 110
Sulfate	10.0	10.38		mg/L		104	90 - 110

Lab Sample ID: 310-265711-10 MS
Matrix: Water
Analysis Batch: 401076

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1.19		5.00	5.694		mg/L		90	80 - 120
Fluoride	0.240		1.00	1.198		mg/L		96	80 - 120
Sulfate	25.6		5.00	30.11	4	mg/L		91	80 - 120

Lab Sample ID: 310-265711-10 MSD
Matrix: Water
Analysis Batch: 401076

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1.19		5.00	5.700		mg/L		90	80 - 120	0	15
Fluoride	0.240		1.00	1.198		mg/L		96	80 - 120	0	15
Sulfate	25.6		5.00	30.12	4	mg/L		91	80 - 120	0	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 400-644248/41
Matrix: Water
Analysis Batch: 644248

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			10/05/23 19:07	1

Lab Sample ID: LCS 400-644248/42
Matrix: Water
Analysis Batch: 644248

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.73	11.41	*+	mg/L		131	90 - 110

Lab Sample ID: LCSD 400-644248/43
Matrix: Water
Analysis Batch: 644248

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.73	11.31	*+	mg/L		130	90 - 110	1	15

Lab Sample ID: MB 400-644502/5
Matrix: Water
Analysis Batch: 644502

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			10/06/23 15:58	1

Lab Sample ID: LCS 400-644502/6
Matrix: Water
Analysis Batch: 644502

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.73	10.77	*+	mg/L		123	90 - 110

Lab Sample ID: LCSD 400-644502/7
Matrix: Water
Analysis Batch: 644502

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.73	10.32	*+	mg/L		118	90 - 110	4	15

Lab Sample ID: MB 400-644513/65
Matrix: Water
Analysis Batch: 644513

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			10/06/23 23:53	1

Lab Sample ID: LCS 400-644513/66
Matrix: Water
Analysis Batch: 644513

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.73	10.86	*+	mg/L		124	90 - 110

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCSD 400-644513/67
Matrix: Water
Analysis Batch: 644513

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			8.73	10.55	*+	mg/L		121	90 - 110	3	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-400957/1-A
Matrix: Water
Analysis Batch: 402306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 400957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Arsenic	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 21:40	1
Barium	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 21:40	1
Beryllium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:40	1
Calcium	<0.500		0.500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Chromium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Cobalt	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Copper	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Lead	<0.000500		0.000500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Magnesium	<0.500		0.500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Manganese	<0.0100		0.0100		mg/L		09/29/23 09:00	10/11/23 21:40	1
Molybdenum	<0.00200		0.00200		mg/L		09/29/23 09:00	10/11/23 21:40	1
Nickel	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Potassium	<0.500		0.500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Selenium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Silver	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:40	1
Sodium	<1.00		1.00		mg/L		09/29/23 09:00	10/11/23 21:40	1
Thallium	<0.00100		0.00100		mg/L		09/29/23 09:00	10/11/23 21:40	1
Vanadium	<0.00500		0.00500		mg/L		09/29/23 09:00	10/11/23 21:40	1
Zinc	<0.0200		0.0200		mg/L		09/29/23 09:00	10/11/23 21:40	1

Lab Sample ID: MB 310-400957/1-A
Matrix: Water
Analysis Batch: 402442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 400957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		09/29/23 09:00	10/12/23 16:52	1

Lab Sample ID: MB 310-400957/1-A
Matrix: Water
Analysis Batch: 402535

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 400957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		09/29/23 09:00	10/13/23 12:27	1
Cadmium	<0.000200		0.000200		mg/L		09/29/23 09:00	10/13/23 12:27	1
Lithium	<0.0100		0.0100		mg/L		09/29/23 09:00	10/13/23 12:27	1

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

Lab Sample ID: LCS 310-400957/2-A
Matrix: Water
Analysis Batch: 402306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.1879		mg/L		94	80 - 120
Arsenic	0.200	0.1997		mg/L		100	80 - 120
Barium	0.100	0.1010		mg/L		101	80 - 120
Beryllium	0.100	0.09349		mg/L		93	80 - 120
Chromium	0.100	0.1004		mg/L		100	80 - 120
Cobalt	0.100	0.09698		mg/L		97	80 - 120
Copper	0.200	0.1887		mg/L		94	80 - 120
Lead	0.200	0.2048		mg/L		102	80 - 120
Magnesium	2.00	1.666		mg/L		83	80 - 120
Manganese	0.100	0.08783		mg/L		88	80 - 120
Molybdenum	0.200	0.1896		mg/L		95	80 - 120
Nickel	0.200	0.1925		mg/L		96	80 - 120
Potassium	2.00	1.902		mg/L		95	80 - 120
Selenium	0.400	0.3863		mg/L		97	80 - 120
Silver	0.100	0.09709		mg/L		97	80 - 120
Sodium	2.00	2.035		mg/L		102	80 - 120
Vanadium	0.100	0.09772		mg/L		98	80 - 120
Zinc	0.200	0.1855		mg/L		93	80 - 120

Lab Sample ID: LCS 310-400957/2-A
Matrix: Water
Analysis Batch: 402442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2145		mg/L		107	80 - 120
Calcium	2.00	2.184		mg/L		109	80 - 120
Thallium	0.200	0.1704		mg/L		85	80 - 120

Lab Sample ID: LCS 310-400957/2-A
Matrix: Water
Analysis Batch: 402535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2247		mg/L		112	80 - 120
Cadmium	0.100	0.1021		mg/L		102	80 - 120
Lithium	0.200	0.2147		mg/L		107	80 - 120

Lab Sample ID: 310-265711-1 MS
Matrix: Water
Analysis Batch: 402306

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	<0.0500		0.200	0.1995		mg/L		100	75 - 125
Antimony	<0.00200	F1 *+	0.200	0.2387		mg/L		119	75 - 125
Arsenic	<0.00200		0.200	0.2024		mg/L		101	75 - 125
Barium	0.0728		0.100	0.1721		mg/L		99	75 - 125
Beryllium	<0.00100		0.100	0.09648		mg/L		96	75 - 125
Calcium	102	*-	2.00	103.4	4	mg/L		46	75 - 125
Chromium	<0.00500		0.100	0.09901		mg/L		99	75 - 125

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

Lab Sample ID: 310-265711-1 MS
Matrix: Water
Analysis Batch: 402306

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.00357		0.100	0.09723		mg/L		94	75 - 125
Copper	<0.00500		0.200	0.1872		mg/L		94	75 - 125
Lead	0.000515		0.200	0.1956		mg/L		98	75 - 125
Magnesium	59.8		2.00	60.64	4	mg/L		43	75 - 125
Manganese	1.42		0.100	1.478	4	mg/L		60	75 - 125
Molybdenum	<0.00200		0.200	0.1954		mg/L		97	75 - 125
Nickel	0.00836		0.200	0.1995		mg/L		96	75 - 125
Potassium	9.40		2.00	11.28	4	mg/L		94	75 - 125
Selenium	<0.00500		0.400	0.3855		mg/L		96	75 - 125
Silver	<0.00100		0.100	0.09214		mg/L		92	75 - 125
Sodium	53.7		2.00	55.00	4	mg/L		66	75 - 125
Thallium	0.00263	F1 *-	0.200	0.1479	F1	mg/L		73	75 - 125
Vanadium	<0.00500		0.100	0.09930		mg/L		99	75 - 125
Zinc	<0.0200		0.200	0.1900		mg/L		95	75 - 125

Lab Sample ID: 310-265711-1 MS
Matrix: Water
Analysis Batch: 402442

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2216		mg/L		111	75 - 125
Boron	0.861		0.200	1.058	4	mg/L		98	75 - 125

Lab Sample ID: 310-265711-1 MS
Matrix: Water
Analysis Batch: 402535

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2351		mg/L		118	75 - 125
Lithium	0.0165	F1	0.200	0.2871	F1	mg/L		135	75 - 125

Lab Sample ID: 310-265711-1 MSD
Matrix: Water
Analysis Batch: 402306

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	<0.0500		0.200	0.2032		mg/L		102	75 - 125	2	20
Antimony	<0.00200	F1 *+	0.200	0.2518	F1	mg/L		126	75 - 125	5	20
Arsenic	<0.00200		0.200	0.2063		mg/L		103	75 - 125	2	20
Barium	0.0728		0.100	0.1752		mg/L		102	75 - 125	2	20
Beryllium	<0.00100		0.100	0.09887		mg/L		99	75 - 125	2	20
Calcium	102	*-	2.00	102.2	4	mg/L		-17	75 - 125	1	20
Chromium	<0.00500		0.100	0.1009		mg/L		101	75 - 125	2	20
Cobalt	0.00357		0.100	0.09876		mg/L		95	75 - 125	2	20
Copper	<0.00500		0.200	0.1929		mg/L		96	75 - 125	3	20
Lead	0.000515		0.200	0.1995		mg/L		100	75 - 125	2	20
Magnesium	59.8		2.00	61.21	4	mg/L		71	75 - 125	1	20
Manganese	1.42		0.100	1.492	4	mg/L		74	75 - 125	1	20
Molybdenum	<0.00200		0.200	0.2013		mg/L		100	75 - 125	3	20

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

Lab Sample ID: 310-265711-1 MSD — **Client Sample ID: MW-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 402306 — **Prep Batch: 400957**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nickel	0.00836		0.200	0.2045		mg/L		98	75 - 125	3	20
Potassium	9.40		2.00	11.33	4	mg/L		97	75 - 125	0	20
Selenium	<0.00500		0.400	0.3938		mg/L		98	75 - 125	2	20
Silver	<0.00100		0.100	0.09201		mg/L		92	75 - 125	0	20
Sodium	53.7		2.00	54.74	4	mg/L		53	75 - 125	0	20
Thallium	0.00263	F1 *-	0.200	0.1589		mg/L		78	75 - 125	7	20
Vanadium	<0.00500		0.100	0.1004		mg/L		100	75 - 125	1	20
Zinc	<0.0200		0.200	0.1960		mg/L		98	75 - 125	3	20

Lab Sample ID: 310-265711-1 MSD — **Client Sample ID: MW-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 402442 — **Prep Batch: 400957**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2298		mg/L		115	75 - 125	4	20
Boron	0.861		0.200	1.062	4	mg/L		101	75 - 125	0	20

Lab Sample ID: 310-265711-1 MSD — **Client Sample ID: MW-12**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 402535 — **Prep Batch: 400957**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2434		mg/L		122	75 - 125	3	20
Lithium	0.0165	F1	0.200	0.2948	F1	mg/L		139	75 - 125	3	20

Lab Sample ID: 310-265711-12 DU — **Client Sample ID: MW-1B**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 402442 — **Prep Batch: 400957**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Aluminum	0.0795		<0.0500		mg/L				NC	20
Antimony	<0.00200		<0.00200		mg/L				NC	20
Arsenic	<0.00200		<0.00200		mg/L				NC	20
Barium	0.0491		0.04911		mg/L				0.08	20
Beryllium	<0.00100		<0.00100		mg/L				NC	20
Boron	0.110		<0.100		mg/L				NC	20
Calcium	140		142.5		mg/L				2	20
Chromium	<0.00500		<0.00500		mg/L				NC	20
Cobalt	0.000578		0.0005580		mg/L				4	20
Copper	<0.00500		<0.00500		mg/L				NC	20
Lead	<0.000500		<0.000500		mg/L				NC	20
Lithium	<0.0100	^+	<0.0100	^+	mg/L				NC	20
Magnesium	60.2		60.71		mg/L				0.9	20
Manganese	0.0873		0.08769		mg/L				0.5	20
Molybdenum	<0.00200		<0.00200		mg/L				NC	20
Nickel	<0.00500		<0.00500		mg/L				NC	20
Potassium	5.89		5.895		mg/L				0.07	20
Selenium	<0.00500		<0.00500		mg/L				NC	20
Silver	<0.00100		<0.00100		mg/L				NC	20

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

Lab Sample ID: 310-265711-12 DU
Matrix: Water
Analysis Batch: 402442

Client Sample ID: MW-1B
Prep Type: Total/NA
Prep Batch: 400957

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sodium	12.1		12.36		mg/L		2	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

Lab Sample ID: MB 310-400958/1-A
Matrix: Water
Analysis Batch: 402442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 400958

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Antimony	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 19:24	1
Arsenic	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 19:24	1
Barium	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 19:24	1
Beryllium	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 19:24	1
Boron	<0.100		0.100		mg/L		10/02/23 09:45	10/12/23 19:24	1
Cadmium	<0.000200		0.000200		mg/L		10/02/23 09:45	10/12/23 19:24	1
Calcium	<0.500		0.500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Chromium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Cobalt	<0.000500		0.000500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Copper	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Lead	<0.000500		0.000500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Lithium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/12/23 19:24	1
Magnesium	<0.500		0.500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Manganese	<0.0100		0.0100		mg/L		10/02/23 09:45	10/12/23 19:24	1
Molybdenum	<0.00200		0.00200		mg/L		10/02/23 09:45	10/12/23 19:24	1
Nickel	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Potassium	<0.500		0.500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Selenium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Silver	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 19:24	1
Sodium	<1.00		1.00		mg/L		10/02/23 09:45	10/12/23 19:24	1
Thallium	<0.00100		0.00100		mg/L		10/02/23 09:45	10/12/23 19:24	1
Vanadium	<0.00500		0.00500		mg/L		10/02/23 09:45	10/12/23 19:24	1
Zinc	<0.0200		0.0200		mg/L		10/02/23 09:45	10/12/23 19:24	1

Lab Sample ID: LCS 310-400958/2-A
Matrix: Water
Analysis Batch: 402442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 400958

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2097		mg/L		105	80 - 120
Antimony	0.200	0.2293		mg/L		115	80 - 120
Arsenic	0.200	0.2113		mg/L		106	80 - 120
Barium	0.100	0.1036		mg/L		104	80 - 120
Beryllium	0.100	0.1128		mg/L		113	80 - 120
Boron	0.200	0.2232		mg/L		112	80 - 120
Cadmium	0.100	0.09754		mg/L		98	80 - 120
Calcium	2.00	2.147		mg/L		107	80 - 120
Chromium	0.100	0.1110		mg/L		111	80 - 120

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

Lab Sample ID: LCS 310-400958/2-A
Matrix: Water
Analysis Batch: 402442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 400958

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.100	0.1109		mg/L		111	80 - 120
Copper	0.200	0.2153		mg/L		108	80 - 120
Lead	0.200	0.2128		mg/L		106	80 - 120
Lithium	0.200	0.2333		mg/L		117	80 - 120
Magnesium	2.00	2.135		mg/L		107	80 - 120
Manganese	0.100	0.1042		mg/L		104	80 - 120
Molybdenum	0.200	0.2038		mg/L		102	80 - 120
Nickel	0.200	0.2139		mg/L		107	80 - 120
Potassium	2.00	2.284		mg/L		114	80 - 120
Selenium	0.400	0.3723		mg/L		93	80 - 120
Silver	0.100	0.1107		mg/L		111	80 - 120
Sodium	2.00	2.284		mg/L		114	80 - 120
Thallium	0.200	0.1702		mg/L		85	80 - 120
Vanadium	0.100	0.1025		mg/L		102	80 - 120
Zinc	0.200	0.1974		mg/L		99	80 - 120

Lab Sample ID: 310-265711-21 DU
Matrix: Water
Analysis Batch: 402442

Client Sample ID: MW-20
Prep Type: Total/NA
Prep Batch: 400958

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	1.39		1.453		mg/L		4	20
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Barium	0.0782		0.07998		mg/L		2	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Boron	0.408		0.4183		mg/L		2	20
Calcium	86.3		88.18		mg/L		2	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	0.000526		0.0005400		mg/L		3	20
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	0.0134		0.01365		mg/L		2	20
Lithium	0.0290		0.03073		mg/L		6	20
Magnesium	39.3		40.22		mg/L		2	20
Manganese	0.0609		0.06192		mg/L		2	20
Molybdenum	<0.00200		<0.00200		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
Sodium	19.7		19.95		mg/L		1	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: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-265711-21 DU
Matrix: Water
Analysis Batch: 402535

Client Sample ID: MW-20
Prep Type: Total/NA
Prep Batch: 400958

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Antimony	<0.00200			<0.00200		mg/L				NC	20
Molybdenum	<0.00200			<0.00200		mg/L				NC	20
Potassium	7.32			6.881		mg/L				6	20
Zinc	<0.0200			<0.0200		mg/L				NC	20

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-400996/1-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 400996

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/29/23 08:22	09/30/23 11:03	1

Lab Sample ID: LCS 310-400996/2-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 400996

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	0.9426		mg/L		94	90 - 110		

Lab Sample ID: 310-265711-1 MS
Matrix: Water
Analysis Batch: 401096

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 400996

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P	<0.100		1.00	1.013		mg/L		101	90 - 110		

Lab Sample ID: 310-265711-1 MSD
Matrix: Water
Analysis Batch: 401096

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 400996

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	1.038		mg/L		104	90 - 110	2	13

Lab Sample ID: MB 310-401015/1-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/29/23 09:01	09/30/23 11:59	1

Lab Sample ID: LCS 310-401015/2-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401015

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	0.9640		mg/L		96	90 - 110		

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: 310-265711-2 MS
Matrix: Water
Analysis Batch: 401096

Client Sample ID: MW-5
Prep Type: Total/NA
Prep Batch: 401015

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	<0.100		1.00	0.9903		mg/L		99	90 - 110

Lab Sample ID: 310-265711-2 MSD
Matrix: Water
Analysis Batch: 401096

Client Sample ID: MW-5
Prep Type: Total/NA
Prep Batch: 401015

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	0.9670		mg/L		97	90 - 110	2	13

Lab Sample ID: MB 310-401025/1-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/29/23 09:21	09/30/23 12:11	1

Lab Sample ID: LCS 310-401025/2-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9978		mg/L		100	90 - 110

Lab Sample ID: 310-265711-4 MS
Matrix: Water
Analysis Batch: 401096

Client Sample ID: MW-4L
Prep Type: Total/NA
Prep Batch: 401025

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	0.167		1.00	1.195		mg/L		103	90 - 110

Lab Sample ID: 310-265711-4 MSD
Matrix: Water
Analysis Batch: 401096

Client Sample ID: MW-4L
Prep Type: Total/NA
Prep Batch: 401025

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	0.167		1.00	1.182		mg/L		101	90 - 110	1	13

Lab Sample ID: MB 310-401122/1-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		10/02/23 08:09	10/02/23 21:47	1

Lab Sample ID: LCS 310-401122/2-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9888		mg/L		99	90 - 110

Method: 365.1 - Phosphorus, Total

Lab Sample ID: 310-265711-7 MS
Matrix: Water
Analysis Batch: 401231

Client Sample ID: MW-7
Prep Type: Total/NA
Prep Batch: 401122

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	<0.100		1.00	1.036		mg/L		103	90 - 110

Lab Sample ID: 310-265711-7 MSD
Matrix: Water
Analysis Batch: 401231

Client Sample ID: MW-7
Prep Type: Total/NA
Prep Batch: 401122

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	0.9915		mg/L		99	90 - 110	4	13

Lab Sample ID: MB 310-401143/1-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:44	1

Lab Sample ID: LCS 310-401143/2-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9338		mg/L		93	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-401159/2
Matrix: Water
Analysis Batch: 401159

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	989.0		mg/L		99	90 - 110

Lab Sample ID: LCS 310-401159/25
Matrix: Water
Analysis Batch: 401159

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	989.9		mg/L		99	90 - 110

Lab Sample ID: 310-265711-8 DU
Matrix: Water
Analysis Batch: 401159

Client Sample ID: MW-19
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	396		396.6		mg/L		0.2	10
Bicarbonate Alkalinity as CaCO3	396		396.6		mg/L		0.2	
Carbonate Alkalinity as CaCO3	<5.00		<5.00		mg/L		NC	

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-400834/1
Matrix: Water
Analysis Batch: 400834

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/27/23 16:12	1

Lab Sample ID: LCS 310-400834/2
Matrix: Water
Analysis Batch: 400834

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	938.0		mg/L		94	90 - 110

Lab Sample ID: MB 310-400945/1
Matrix: Water
Analysis Batch: 400945

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/28/23 14:35	1

Lab Sample ID: LCS 310-400945/2
Matrix: Water
Analysis Batch: 400945

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1018		mg/L		102	90 - 110

Lab Sample ID: 310-265711-10 DU
Matrix: Water
Analysis Batch: 400945

Client Sample ID: MW-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	398		420.0		mg/L		5	20

HPLC/IC

Analysis Batch: 400948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	9056A	
310-265711-1	MW-12	Total/NA	Water	9056A	
310-265711-2	MW-5	Total/NA	Water	9056A	
310-265711-2	MW-5	Total/NA	Water	9056A	
310-265711-3	MW-18	Total/NA	Water	9056A	
310-265711-3	MW-18	Total/NA	Water	9056A	
310-265711-4	MW-4L	Total/NA	Water	9056A	
310-265711-4	MW-4L	Total/NA	Water	9056A	
310-265711-5	MW-4	Total/NA	Water	9056A	
310-265711-5	MW-4	Total/NA	Water	9056A	
310-265711-6	MW-14	Total/NA	Water	9056A	
310-265711-6	MW-14	Total/NA	Water	9056A	
310-265711-7	MW-7	Total/NA	Water	9056A	
310-265711-7	MW-7	Total/NA	Water	9056A	
310-265711-8	MW-19	Total/NA	Water	9056A	
310-265711-9	MW-Dup	Total/NA	Water	9056A	
MB 310-400948/3	Method Blank	Total/NA	Water	9056A	
LCS 310-400948/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 401076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-10	MW-21	Total/NA	Water	9056A	
310-265711-11	MW-1A	Total/NA	Water	9056A	
310-265711-12	MW-1B	Total/NA	Water	9056A	
310-265711-12	MW-1B	Total/NA	Water	9056A	
310-265711-13	MW-2A	Total/NA	Water	9056A	
310-265711-13	MW-2A	Total/NA	Water	9056A	
310-265711-14	MW-3L	Total/NA	Water	9056A	
310-265711-15	MW-11	Total/NA	Water	9056A	
310-265711-15	MW-11	Total/NA	Water	9056A	
310-265711-16	Q-Sump	Total/NA	Water	9056A	
310-265711-16	Q-Sump	Total/NA	Water	9056A	
310-265711-17	MW-16L	Total/NA	Water	9056A	
310-265711-18	MW-16	Total/NA	Water	9056A	
310-265711-18	MW-16	Total/NA	Water	9056A	
310-265711-19	MW-15	Total/NA	Water	9056A	
310-265711-19	MW-15	Total/NA	Water	9056A	
310-265711-20	MW-13	Total/NA	Water	9056A	
310-265711-20	MW-13	Total/NA	Water	9056A	
310-265711-21	MW-20	Total/NA	Water	9056A	
MB 310-401076/3	Method Blank	Total/NA	Water	9056A	
LCS 310-401076/4	Lab Control Sample	Total/NA	Water	9056A	
310-265711-10 MS	MW-21	Total/NA	Water	9056A	
310-265711-10 MSD	MW-21	Total/NA	Water	9056A	

Analysis Batch: 644248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	9056A	
310-265711-2	MW-5	Total/NA	Water	9056A	
310-265711-3	MW-18	Total/NA	Water	9056A	
310-265711-4	MW-4L	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 644248 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-5	MW-4	Total/NA	Water	9056A	
MB 400-644248/41	Method Blank	Total/NA	Water	9056A	
LCS 400-644248/42	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-644248/43	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 644502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-6	MW-14	Total/NA	Water	9056A	
310-265711-7	MW-7	Total/NA	Water	9056A	
MB 400-644502/5	Method Blank	Total/NA	Water	9056A	
LCS 400-644502/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-644502/7	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 644513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-8	MW-19	Total/NA	Water	9056A	
310-265711-9	MW-Dup	Total/NA	Water	9056A	
310-265711-10	MW-21	Total/NA	Water	9056A	
310-265711-11	MW-1A	Total/NA	Water	9056A	
310-265711-12	MW-1B	Total/NA	Water	9056A	
310-265711-13	MW-2A	Total/NA	Water	9056A	
310-265711-14	MW-3L	Total/NA	Water	9056A	
310-265711-15	MW-11	Total/NA	Water	9056A	
310-265711-16	Q-Sump	Total/NA	Water	9056A	
310-265711-17	MW-16L	Total/NA	Water	9056A	
310-265711-18	MW-16	Total/NA	Water	9056A	
310-265711-19	MW-15	Total/NA	Water	9056A	
310-265711-20	MW-13	Total/NA	Water	9056A	
310-265711-21	MW-20	Total/NA	Water	9056A	
MB 400-644513/65	Method Blank	Total/NA	Water	9056A	
LCS 400-644513/66	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-644513/67	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 400957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	3005A	
310-265711-2	MW-5	Total/NA	Water	3005A	
310-265711-3	MW-18	Total/NA	Water	3005A	
310-265711-4	MW-4L	Total/NA	Water	3005A	
310-265711-5	MW-4	Total/NA	Water	3005A	
310-265711-6	MW-14	Total/NA	Water	3005A	
310-265711-7	MW-7	Total/NA	Water	3005A	
310-265711-8	MW-19	Total/NA	Water	3005A	
310-265711-9	MW-Dup	Total/NA	Water	3005A	
310-265711-10	MW-21	Total/NA	Water	3005A	
310-265711-11	MW-1A	Total/NA	Water	3005A	
310-265711-12	MW-1B	Total/NA	Water	3005A	
310-265711-13	MW-2A	Total/NA	Water	3005A	
310-265711-14	MW-3L	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 400957 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-15	MW-11	Total/NA	Water	3005A	
310-265711-16	Q-Sump	Total/NA	Water	3005A	
310-265711-17	MW-16L	Total/NA	Water	3005A	
310-265711-18	MW-16	Total/NA	Water	3005A	
310-265711-19	MW-15	Total/NA	Water	3005A	
MB 310-400957/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-400957/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-265711-1 MS	MW-12	Total/NA	Water	3005A	
310-265711-1 MSD	MW-12	Total/NA	Water	3005A	
310-265711-12 DU	MW-1B	Total/NA	Water	3005A	

Prep Batch: 400958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-20	MW-13	Total/NA	Water	3005A	
310-265711-21	MW-20	Total/NA	Water	3005A	
MB 310-400958/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-400958/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-265711-21 DU	MW-20	Total/NA	Water	3005A	

Analysis Batch: 402306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	6020B	400957
310-265711-2	MW-5	Total/NA	Water	6020B	400957
310-265711-3	MW-18	Total/NA	Water	6020B	400957
310-265711-4	MW-4L	Total/NA	Water	6020B	400957
310-265711-5	MW-4	Total/NA	Water	6020B	400957
310-265711-6	MW-14	Total/NA	Water	6020B	400957
310-265711-7	MW-7	Total/NA	Water	6020B	400957
310-265711-8	MW-19	Total/NA	Water	6020B	400957
310-265711-11	MW-1A	Total/NA	Water	6020B	400957
MB 310-400957/1-A	Method Blank	Total/NA	Water	6020B	400957
LCS 310-400957/2-A	Lab Control Sample	Total/NA	Water	6020B	400957
310-265711-1 MS	MW-12	Total/NA	Water	6020B	400957
310-265711-1 MSD	MW-12	Total/NA	Water	6020B	400957

Analysis Batch: 402442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	6020B	400957
310-265711-2	MW-5	Total/NA	Water	6020B	400957
310-265711-3	MW-18	Total/NA	Water	6020B	400957
310-265711-4	MW-4L	Total/NA	Water	6020B	400957
310-265711-5	MW-4	Total/NA	Water	6020B	400957
310-265711-6	MW-14	Total/NA	Water	6020B	400957
310-265711-7	MW-7	Total/NA	Water	6020B	400957
310-265711-8	MW-19	Total/NA	Water	6020B	400957
310-265711-9	MW-Dup	Total/NA	Water	6020B	400957
310-265711-10	MW-21	Total/NA	Water	6020B	400957
310-265711-11	MW-1A	Total/NA	Water	6020B	400957
310-265711-12	MW-1B	Total/NA	Water	6020B	400957
310-265711-13	MW-2A	Total/NA	Water	6020B	400957
310-265711-14	MW-3L	Total/NA	Water	6020B	400957

Metals (Continued)

Analysis Batch: 402442 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-15	MW-11	Total/NA	Water	6020B	400957
310-265711-16	Q-Sump	Total/NA	Water	6020B	400957
310-265711-17	MW-16L	Total/NA	Water	6020B	400957
310-265711-18	MW-16	Total/NA	Water	6020B	400957
310-265711-19	MW-15	Total/NA	Water	6020B	400957
310-265711-20	MW-13	Total/NA	Water	6020B	400958
310-265711-21	MW-20	Total/NA	Water	6020B	400958
MB 310-400957/1-A	Method Blank	Total/NA	Water	6020B	400957
MB 310-400958/1-A	Method Blank	Total/NA	Water	6020B	400958
LCS 310-400957/2-A	Lab Control Sample	Total/NA	Water	6020B	400957
LCS 310-400958/2-A	Lab Control Sample	Total/NA	Water	6020B	400958
310-265711-1 MS	MW-12	Total/NA	Water	6020B	400957
310-265711-1 MSD	MW-12	Total/NA	Water	6020B	400957
310-265711-12 DU	MW-1B	Total/NA	Water	6020B	400957
310-265711-21 DU	MW-20	Total/NA	Water	6020B	400958

Analysis Batch: 402535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	6020B	400957
310-265711-3	MW-18	Total/NA	Water	6020B	400957
310-265711-4	MW-4L	Total/NA	Water	6020B	400957
310-265711-5	MW-4	Total/NA	Water	6020B	400957
310-265711-6	MW-14	Total/NA	Water	6020B	400957
310-265711-7	MW-7	Total/NA	Water	6020B	400957
310-265711-8	MW-19	Total/NA	Water	6020B	400957
310-265711-9	MW-Dup	Total/NA	Water	6020B	400957
310-265711-10	MW-21	Total/NA	Water	6020B	400957
310-265711-11	MW-1A	Total/NA	Water	6020B	400957
310-265711-13	MW-2A	Total/NA	Water	6020B	400957
310-265711-14	MW-3L	Total/NA	Water	6020B	400957
310-265711-15	MW-11	Total/NA	Water	6020B	400957
310-265711-16	Q-Sump	Total/NA	Water	6020B	400957
310-265711-20	MW-13	Total/NA	Water	6020B	400958
310-265711-21	MW-20	Total/NA	Water	6020B	400958
MB 310-400957/1-A	Method Blank	Total/NA	Water	6020B	400957
LCS 310-400957/2-A	Lab Control Sample	Total/NA	Water	6020B	400957
310-265711-1 MS	MW-12	Total/NA	Water	6020B	400957
310-265711-1 MSD	MW-12	Total/NA	Water	6020B	400957
310-265711-21 DU	MW-20	Total/NA	Water	6020B	400958

Analysis Batch: 402540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-3	MW-18	Total/NA	Water	6020B	400957
310-265711-4	MW-4L	Total/NA	Water	6020B	400957
310-265711-5	MW-4	Total/NA	Water	6020B	400957

Analysis Batch: 402546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-2	MW-5	Total/NA	Water	6020B	400957

General Chemistry

Analysis Batch: 400834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-8	MW-19	Total/NA	Water	SM 2540C	
310-265711-9	MW-Dup	Total/NA	Water	SM 2540C	
310-265711-17	MW-16L	Total/NA	Water	SM 2540C	
310-265711-18	MW-16	Total/NA	Water	SM 2540C	
310-265711-19	MW-15	Total/NA	Water	SM 2540C	
310-265711-20	MW-13	Total/NA	Water	SM 2540C	
310-265711-21	MW-20	Total/NA	Water	SM 2540C	
MB 310-400834/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-400834/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 400945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	SM 2540C	
310-265711-2	MW-5	Total/NA	Water	SM 2540C	
310-265711-3	MW-18	Total/NA	Water	SM 2540C	
310-265711-4	MW-4L	Total/NA	Water	SM 2540C	
310-265711-5	MW-4	Total/NA	Water	SM 2540C	
310-265711-6	MW-14	Total/NA	Water	SM 2540C	
310-265711-7	MW-7	Total/NA	Water	SM 2540C	
310-265711-10	MW-21	Total/NA	Water	SM 2540C	
310-265711-11	MW-1A	Total/NA	Water	SM 2540C	
310-265711-12	MW-1B	Total/NA	Water	SM 2540C	
310-265711-13	MW-2A	Total/NA	Water	SM 2540C	
310-265711-14	MW-3L	Total/NA	Water	SM 2540C	
310-265711-15	MW-11	Total/NA	Water	SM 2540C	
310-265711-16	Q-Sump	Total/NA	Water	SM 2540C	
MB 310-400945/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-400945/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-265711-10 DU	MW-21	Total/NA	Water	SM 2540C	

Prep Batch: 400996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	365.1	
MB 310-400996/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-400996/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-265711-1 MS	MW-12	Total/NA	Water	365.1	
310-265711-1 MSD	MW-12	Total/NA	Water	365.1	

Prep Batch: 401015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-2	MW-5	Total/NA	Water	365.1	
MB 310-401015/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-401015/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-265711-2 MS	MW-5	Total/NA	Water	365.1	
310-265711-2 MSD	MW-5	Total/NA	Water	365.1	

Prep Batch: 401025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-4	MW-4L	Total/NA	Water	365.1	
MB 310-401025/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-401025/2-A	Lab Control Sample	Total/NA	Water	365.1	

General Chemistry (Continued)

Prep Batch: 401025 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-4 MS	MW-4L	Total/NA	Water	365.1	
310-265711-4 MSD	MW-4L	Total/NA	Water	365.1	

Analysis Batch: 401096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	365.1	400996
310-265711-2	MW-5	Total/NA	Water	365.1	401015
310-265711-4	MW-4L	Total/NA	Water	365.1	401025
MB 310-400996/1-A	Method Blank	Total/NA	Water	365.1	400996
MB 310-401015/1-A	Method Blank	Total/NA	Water	365.1	401015
MB 310-401025/1-A	Method Blank	Total/NA	Water	365.1	401025
LCS 310-400996/2-A	Lab Control Sample	Total/NA	Water	365.1	400996
LCS 310-401015/2-A	Lab Control Sample	Total/NA	Water	365.1	401015
LCS 310-401025/2-A	Lab Control Sample	Total/NA	Water	365.1	401025
310-265711-1 MS	MW-12	Total/NA	Water	365.1	400996
310-265711-1 MSD	MW-12	Total/NA	Water	365.1	400996
310-265711-2 MS	MW-5	Total/NA	Water	365.1	401015
310-265711-2 MSD	MW-5	Total/NA	Water	365.1	401015
310-265711-4 MS	MW-4L	Total/NA	Water	365.1	401025
310-265711-4 MSD	MW-4L	Total/NA	Water	365.1	401025

Prep Batch: 401122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-7	MW-7	Total/NA	Water	365.1	
MB 310-401122/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-401122/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-265711-7 MS	MW-7	Total/NA	Water	365.1	
310-265711-7 MSD	MW-7	Total/NA	Water	365.1	

Prep Batch: 401143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-3	MW-18	Total/NA	Water	365.1	
310-265711-5	MW-4	Total/NA	Water	365.1	
310-265711-6	MW-14	Total/NA	Water	365.1	
310-265711-8	MW-19	Total/NA	Water	365.1	
310-265711-9	MW-Dup	Total/NA	Water	365.1	
310-265711-10	MW-21	Total/NA	Water	365.1	
310-265711-11	MW-1A	Total/NA	Water	365.1	
310-265711-12	MW-1B	Total/NA	Water	365.1	
310-265711-13	MW-2A	Total/NA	Water	365.1	
310-265711-14	MW-3L	Total/NA	Water	365.1	
310-265711-15	MW-11	Total/NA	Water	365.1	
310-265711-16	Q-Sump	Total/NA	Water	365.1	
310-265711-17	MW-16L	Total/NA	Water	365.1	
310-265711-18	MW-16	Total/NA	Water	365.1	
310-265711-19	MW-15	Total/NA	Water	365.1	
310-265711-20	MW-13	Total/NA	Water	365.1	
310-265711-21	MW-20	Total/NA	Water	365.1	
MB 310-401143/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-401143/2-A	Lab Control Sample	Total/NA	Water	365.1	

General Chemistry

Analysis Batch: 401159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-1	MW-12	Total/NA	Water	SM 2320B	
310-265711-2	MW-5	Total/NA	Water	SM 2320B	
310-265711-3	MW-18	Total/NA	Water	SM 2320B	
310-265711-4	MW-4L	Total/NA	Water	SM 2320B	
310-265711-5	MW-4	Total/NA	Water	SM 2320B	
310-265711-6	MW-14	Total/NA	Water	SM 2320B	
310-265711-7	MW-7	Total/NA	Water	SM 2320B	
310-265711-8	MW-19	Total/NA	Water	SM 2320B	
310-265711-9	MW-Dup	Total/NA	Water	SM 2320B	
310-265711-10	MW-21	Total/NA	Water	SM 2320B	
310-265711-11	MW-1A	Total/NA	Water	SM 2320B	
310-265711-12	MW-1B	Total/NA	Water	SM 2320B	
310-265711-13	MW-2A	Total/NA	Water	SM 2320B	
310-265711-14	MW-3L	Total/NA	Water	SM 2320B	
310-265711-15	MW-11	Total/NA	Water	SM 2320B	
310-265711-16	Q-Sump	Total/NA	Water	SM 2320B	
310-265711-17	MW-16L	Total/NA	Water	SM 2320B	
310-265711-18	MW-16	Total/NA	Water	SM 2320B	
310-265711-19	MW-15	Total/NA	Water	SM 2320B	
310-265711-20	MW-13	Total/NA	Water	SM 2320B	
310-265711-21	MW-20	Total/NA	Water	SM 2320B	
LCS 310-401159/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 310-401159/25	Lab Control Sample	Total/NA	Water	SM 2320B	
310-265711-8 DU	MW-19	Total/NA	Water	SM 2320B	

Analysis Batch: 401231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265711-3	MW-18	Total/NA	Water	365.1	401143
310-265711-5	MW-4	Total/NA	Water	365.1	401143
310-265711-6	MW-14	Total/NA	Water	365.1	401143
310-265711-7	MW-7	Total/NA	Water	365.1	401122
310-265711-8	MW-19	Total/NA	Water	365.1	401143
310-265711-9	MW-Dup	Total/NA	Water	365.1	401143
310-265711-10	MW-21	Total/NA	Water	365.1	401143
310-265711-11	MW-1A	Total/NA	Water	365.1	401143
310-265711-12	MW-1B	Total/NA	Water	365.1	401143
310-265711-13	MW-2A	Total/NA	Water	365.1	401143
310-265711-14	MW-3L	Total/NA	Water	365.1	401143
310-265711-15	MW-11	Total/NA	Water	365.1	401143
310-265711-16	Q-Sump	Total/NA	Water	365.1	401143
310-265711-17	MW-16L	Total/NA	Water	365.1	401143
310-265711-18	MW-16	Total/NA	Water	365.1	401143
310-265711-19	MW-15	Total/NA	Water	365.1	401143
310-265711-20	MW-13	Total/NA	Water	365.1	401143
310-265711-21	MW-20	Total/NA	Water	365.1	401143
MB 310-401122/1-A	Method Blank	Total/NA	Water	365.1	401122
MB 310-401143/1-A	Method Blank	Total/NA	Water	365.1	401143
LCS 310-401122/2-A	Lab Control Sample	Total/NA	Water	365.1	401122
LCS 310-401143/2-A	Lab Control Sample	Total/NA	Water	365.1	401143
310-265711-7 MS	MW-7	Total/NA	Water	365.1	401122
310-265711-7 MSD	MW-7	Total/NA	Water	365.1	401122

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-12

Lab Sample ID: 310-265711-1

Date Collected: 09/26/23 07:40

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		50	400948	QTZ5	EET CF	09/27/23 11:57
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 16:02
Total/NA	Analysis	9056A		1	644248	JN	EET PEN	10/05/23 21:47
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 16:58
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 21:45
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 12:38
Total/NA	Prep	365.1			400996	MAQ3	EET CF	09/29/23 08:22
Total/NA	Analysis	365.1		1	401096	WZC8	EET CF	09/30/23 11:03
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 12:59
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-5

Lab Sample ID: 310-265711-2

Date Collected: 09/26/23 08:15

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		100	400948	QTZ5	EET CF	09/27/23 12:09
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 16:14
Total/NA	Analysis	9056A		1	644248	JN	EET PEN	10/05/23 22:07
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		4	402442	A6US	EET CF	10/12/23 17:08
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 21:56
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402546	A6US	EET CF	10/13/23 17:09
Total/NA	Prep	365.1			401015	MAQ3	EET CF	09/29/23 09:01
Total/NA	Analysis	365.1		1	401096	WZC8	EET CF	09/30/23 12:00
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 13:09
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-18

Lab Sample ID: 310-265711-3

Date Collected: 09/26/23 08:40

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 12:46
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 17:02
Total/NA	Analysis	9056A		1	644248	JN	EET PEN	10/05/23 23:06
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		4	402442	A6US	EET CF	10/12/23 17:11

Client Sample ID: MW-18

Lab Sample ID: 310-265711-3

Date Collected: 09/26/23 08:40

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 21:59
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		40	402535	A6US	EET CF	10/13/23 14:35
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		100	402540	A6US	EET CF	10/13/23 15:21
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:46
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 13:19
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-4L

Lab Sample ID: 310-265711-4

Date Collected: 09/26/23 08:50

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 12:58
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 17:14
Total/NA	Analysis	9056A		1	644248	JN	EET PEN	10/05/23 23:26
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		4	402442	A6US	EET CF	10/12/23 17:15
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 22:01
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		28	402535	A6US	EET CF	10/13/23 13:10
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		100	402540	A6US	EET CF	10/13/23 15:24
Total/NA	Prep	365.1			401025	MAQ3	EET CF	09/29/23 09:21
Total/NA	Analysis	365.1		1	401096	WZC8	EET CF	09/30/23 12:11
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 13:39
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-4

Lab Sample ID: 310-265711-5

Date Collected: 09/26/23 09:10

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 13:10
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 17:27
Total/NA	Analysis	9056A		1	644248	JN	EET PEN	10/05/23 23:46
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		4	402442	A6US	EET CF	10/12/23 17:18
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 22:19

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-4

Date Collected: 09/26/23 09:10
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		28	402535	A6US	EET CF	10/13/23 13:12
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		100	402540	A6US	EET CF	10/13/23 15:26
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:49
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 13:58
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-14

Date Collected: 09/26/23 09:40
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 13:22
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 17:39
Total/NA	Analysis	9056A		1	644502	JN	EET PEN	10/06/23 22:34
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		4	402442	A6US	EET CF	10/12/23 17:22
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 22:21
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		28	402535	A6US	EET CF	10/13/23 13:15
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:47
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 14:16
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-7

Date Collected: 09/26/23 10:10
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 17:51
Total/NA	Analysis	9056A		5	400948	QTZ5	EET CF	09/27/23 18:03
Total/NA	Analysis	9056A		1	644502	JN	EET PEN	10/06/23 22:54
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 17:25
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 22:24
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:17
Total/NA	Prep	365.1			401122	MAQ3	EET CF	10/02/23 08:09
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 21:48

Client Sample ID: MW-7

Lab Sample ID: 310-265711-7

Date Collected: 09/26/23 10:10

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 14:35
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-19

Lab Sample ID: 310-265711-8

Date Collected: 09/26/23 10:45

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 18:15
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 00:53
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 17:49
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 22:26
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:19
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:47
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 14:42
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: MW-Dup

Lab Sample ID: 310-265711-9

Date Collected: 09/26/23 10:45

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	400948	QTZ5	EET CF	09/27/23 18:27
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 01:13
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 17:52
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:22
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:48
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 15:03
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: MW-21

Lab Sample ID: 310-265711-10

Date Collected: 09/26/23 11:25

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 19:52
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 01:32

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-21
Date Collected: 09/26/23 11:25
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 17:56
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:24
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:48
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 15:14
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-1A
Date Collected: 09/26/23 11:50
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 20:28
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 01:52
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 17:59
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402306	A6US	EET CF	10/11/23 22:34
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:26
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:50
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 15:24
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-1B
Date Collected: 09/26/23 12:00
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 20:40
Total/NA	Analysis	9056A		50	401076	QTZ5	EET CF	09/28/23 13:34
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 02:12
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 18:02
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:51
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 15:34
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-2A

Lab Sample ID: 310-265711-13

Date Collected: 09/26/23 12:45

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 20:52
Total/NA	Analysis	9056A		50	401076	QTZ5	EET CF	09/28/23 13:46
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 02:32
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 18:09
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:29
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:52
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 15:45
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-3L

Lab Sample ID: 310-265711-14

Date Collected: 09/26/23 13:15

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 21:04
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 02:52
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 18:13
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:31
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:51
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 15:54
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-11

Lab Sample ID: 310-265711-15

Date Collected: 09/26/23 13:40

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	401076	QTZ5	EET CF	09/27/23 13:58
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 21:16
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 03:51
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		100	402442	A6US	EET CF	10/12/23 18:16
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:43
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:51
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 16:05

Client Sample ID: MW-11

Lab Sample ID: 310-265711-15

Date Collected: 09/26/23 13:40

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: Q-Sump

Lab Sample ID: 310-265711-16

Date Collected: 09/26/23 14:20

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 22:04
Total/NA	Analysis	9056A		100	401076	QTZ5	EET CF	09/28/23 14:10
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 04:11
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		4	402442	A6US	EET CF	10/12/23 18:19
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 13:45
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:53
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 17:44
Total/NA	Analysis	SM 2540C		1	400945	ENB7	EET CF	09/28/23 14:35

Client Sample ID: MW-16L

Lab Sample ID: 310-265711-17

Date Collected: 09/26/23 15:00

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 22:16
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 04:31
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 18:43
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:52
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 17:53
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: MW-16

Lab Sample ID: 310-265711-18

Date Collected: 09/26/23 15:15

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 22:28
Total/NA	Analysis	9056A		100	401076	QTZ5	EET CF	09/28/23 14:22
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 04:50
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		4	402442	A6US	EET CF	10/12/23 18:47

Client Sample ID: MW-16
Date Collected: 09/26/23 15:15
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:53
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 18:02
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: MW-15
Date Collected: 09/26/23 15:55
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 22:40
Total/NA	Analysis	9056A		50	401076	QTZ5	EET CF	09/28/23 14:34
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 05:10
Total/NA	Prep	3005A			400957	KCK5	EET CF	09/29/23 09:00
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 18:50
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:54
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 18:12
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: MW-13
Date Collected: 09/26/23 15:35
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 22:53
Total/NA	Analysis	9056A		50	401076	QTZ5	EET CF	09/28/23 15:11
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 05:30
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 21:16
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 14:23
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:55
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 18:22
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: MW-20
Date Collected: 09/26/23 16:15
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	401076	QTZ5	EET CF	09/27/23 23:05
Total/NA	Analysis	9056A		1	644513	JN	EET PEN	10/07/23 05:50

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Client Sample ID: MW-20

Date Collected: 09/26/23 16:15
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265711-21

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		1	402442	A6US	EET CF	10/12/23 21:19
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		1	402535	A6US	EET CF	10/13/23 14:26
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:50
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 18:32
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Laboratory References:

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-265711-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265711-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET PEN
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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 PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing America

310-265711 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY Moline | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 9 27-23 | TIME 0920 | Received By: MY

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? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present? No	☐ 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: T | 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): 1.6 | Corrected Temp (°C): 1.6

• **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

One plastic 125ml bottle labeled MW-12, but bagged with the other MW-15 bottles

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY Moline | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 9-27-23 | TIME 0920 | Received By: MY

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? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present? No	☐ 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: T | 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:	plastic 250 Nitric	plastic 250 Sulfuric
Uncorrected Temp (°C):	6.0	5.7
Corrected Temp (°C):	6.0	5.7

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

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY Moline | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 9-27-23 | TIME 0920 | Received By: MY

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: T | 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): 1.7 | Corrected Temp (°C): 1.7

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

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY Moline | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 9-27-23 | TIME 0920 | Received By: MY

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: T | 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:	1.9	1.9
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

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information	Sampler: Tyler Sandell	Lab PM: Calhoun Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Krista Brodersen	Phone: 573-528-0949	E-Mail: Conner Calhoun@et.eurofinsus com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested: STD			
City: Moline	TAT Requested (days):			
State, Zip: IL, 61265	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: kbrodersen@blackstone-env com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
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	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)	2540C_Calcd- TDS	2320B Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H- Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9300.1_28D - (MOD) - Bromate (sub 125ml ethylene diamine to Savannah)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW-12	9-26-23	0740	G	W			X	X	X	X	X	X	X		Nitrates- 48hr hold time
MW-5		0815													
MW-18		0840													
MW-4L		0850													
MW-4		0910													
MW-14		0940													
MW-1		1010													
MW-19		1045													
MW-Dup		1045													
MW-21		1125													
MW-1A		1150													

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Tyler Sandell	9-26-23 @ 1721			9-27-23 0920	Eurofins
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:

Ver: 01/16/2019

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

Chain of Custody Record

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212

eurofins

Client Information	Sampler	Lab PM: Calhoun Conner M	Carrier Tracking No(s).	COC No: 310-79182-22267 1
Client Contact: Krista Brodersen	Phone	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin.	Page: Page 1 of 1
Company: Blackstone Environmental Inc	PWSID			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested:			
City: Moline	TAT Requested (days):			
State, Zip: IL, 61265	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: kbrodersen@blackstone-env com	WO #:			
Project Name: Buffalo IA	Project #: 31010114			
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	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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365 1- Total Phosphorous	9300.1_28D - (MOD) - Bromate (sub 125ml ethylene diamine to Savannah)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
MW-1B	9-26-23	1200	G	W			X	X	X	X	X	X	X		Nitrates- 48hr hold time
MW-2A		1245													
MW-3L		1315													
MW-11		1340													
GW-Sump		1420													
MW-16L		1500													
MW-16		1515													
MW-15		1555													
MW-13		1535													
MW-20		1615													

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

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)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time.	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
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:

Ver 01/16/2019

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s)	COC No: 310-65761.1
Client Contact: Shipping/Receiving	Phone.	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-265711-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/10/2023			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
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)	9056A_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-12 (310-265711-1)	9/26/23	07:40 Central		Water			X	1	
MW-5 (310-265711-2)	9/26/23	08:15 Central		Water			X	1	
MW-18 (310-265711-3)	9/26/23	08:40 Central		Water			X	1	
MW-4L (310-265711-4)	9/26/23	08:50 Central		Water			X	1	
MW-4 (310-265711-5)	9/26/23	09:10 Central		Water			X	1	
MW-14 (310-265711-6)	9/26/23	09:40 Central		Water			X	1	
MW-7 (310-265711-7)	9/26/23	10:10 Central		Water			X	1	
MW-19 (310-265711-8)	9/26/23	10:45 Central		Water			X	1	
MW-Dup (310-265711-9)	9/26/23	10:45 Central		Water			X	1	

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]	9/26/23 1250				
	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	Relinquished by	Date/Time	Company	Received by [signature]	Date/Time 9.29.23 8:42	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 1.5 IR8

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s)	COC No: 310-65761.2
Client Contact: Shipping/Receiving	Phone	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 2 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-265711-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/10/2023			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
Site:	SSOW#:			

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 - Tnzma, Z - other (specify)
Other:

Analysis Requested

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)	9056A_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-21 (310-265711-10)	9/26/23	11:25 Central		Water			X	1	
MW-1A (310-265711-11)	9/26/23	11.50 Central		Water			X	1	
MW-1B (310-265711-12)	9/26/23	12:00 Central		Water			X	1	
MW-2A (310-265711-13)	9/26/23	12:45 Central		Water			X	1	
MW-3L (310-265711-14)	9/26/23	13:15 Central		Water			X	1	
MW-11 (310-265711-15)	9/26/23	13:40 Central		Water			X	1	
Q-Sump (310-265711-16)	9/26/23	14:20 Central		Water			X	1	
MW-16L (310-265711-17)	9/26/23	15:00 Central		Water			X	1	
MW-16 (310-265711-18)	9/26/23	15:15 Central		Water			X	1	

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]	9/27/23 1250				
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by [signature]	Date/Time 9.29.23 8:42	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No :	Cooler Temperature(s) °C and Other Remarks: 1.5 IR8

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s)	COC No: 310-65761.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus com	State of Origin: Iowa	Page: Page 3 of 3
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-265711-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/10/2023			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
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)	9056A_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-15 (310-265711-19)	9/26/23	15:55 Central		Water			X	1	
MW-13 (310-265711-20)	9/26/23	15:35 Central		Water			X	1	
MW-20 (310-265711-21)	9/26/23	16:15 Central		Water			X	1	

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: 9.28.23 1450	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time.	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time: 9.29.23 8:42	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5 IR8

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-265711-1

Login Number: 265711
List Number: 1
Creator: Yang, Mary E

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.	False	Refer to Job Narrative for details.
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.	False	sample MW-7 limited volume received.
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: Blackstone Environmental, Inc

Job Number: 310-265711-1

Login Number: 265711
List Number: 2
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola
List Creation: 09/29/23 12:57 PM

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	1.5°C IR8
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.	N/A	
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: Krista Brodersen
Blackstone Environmental, Inc
1465 41st Street
Suite 13
Moline, Illinois 61265

Generated 10/20/2023 2:42:51 PM Revision 1

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-265718-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

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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Revision 1

Authorized for release by
Conner Calhoun, Project Management Assistant I
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Job ID: 310-265718-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-265718-1

REVISION

The report being provided is a revision of the original report sent on 10/16/2023. The report (revision 1) is being revised due to Antimony and Cadmium added into reports.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/27/2023 9:20 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 3.1°C

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: LL-1 (310-265718-1), LL-2 (310-265718-2) and L-Samp (310-265718-5). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The continuing calibration verification (CCV) associated with batch 400-644248 recovered above the upper control limit for Bromate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 400-644248/39) and (CCV 400-644248/51).

Method 9056A_ORGFM_28D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 400-644248 recovered outside control limits for the following analytes: Bromate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 9056A_ORGFM_28D: The following samples were diluted due to the abundance of non-target analytes: LL-1 (310-265718-1), UL-2R (310-265718-3), LL-3 (310-265718-4) and L-Samp (310-265718-5). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: LL-1 (310-265718-1) and LL-3 (310-265718-4). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B: The following samples were received with insufficient preservation: UL-2R (310-265718-3) and L-Samp (310-265718-5). The client was contacted and preservative was added by the laboratory, but the sample remained strongly basic. No further attempt was made to acidify the sample, as it would have diluted the sample. This does not meet regulatory requirements.

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

General Chemistry

Job ID: 310-265718-1 (Continued)

Laboratory: Eurofins Cedar Falls (Continued)

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

Sample Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-265718-1	LL-1	Water	09/25/23 15:00	09/27/23 09:20
310-265718-2	LL-2	Water	09/25/23 14:05	09/27/23 09:20
310-265718-3	UL-2R	Water	09/25/23 13:55	09/27/23 09:20
310-265718-4	LL-3	Water	09/25/23 13:15	09/27/23 09:20
310-265718-5	L-Samp	Water	09/25/23 15:30	09/27/23 09:20

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: LL-1 — Lab Sample ID: 310-265718-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2230		200		mg/L	200		9056A	Total/NA
Sulfate	3310		200		mg/L	200		9056A	Total/NA
Barium	0.114		0.0200		mg/L	10		6020B	Total/NA
Calcium	512		50.0		mg/L	100		6020B	Total/NA
Lead	0.122		0.00500		mg/L	10		6020B	Total/NA
Lithium	3.02		1.00		mg/L	100		6020B	Total/NA
Molybdenum	0.0268		0.0200		mg/L	10		6020B	Total/NA
Potassium	6430		50.0		mg/L	100		6020B	Total/NA
Selenium	0.0721		0.0500		mg/L	10		6020B	Total/NA
Sodium	170		10.0		mg/L	10		6020B	Total/NA
Thallium	0.0102		0.0100		mg/L	10		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	3830		25.0		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	331		25.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	14900		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-2 — Lab Sample ID: 310-265718-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2950		200		mg/L	200		9056A	Total/NA
Sulfate	1540		200		mg/L	200		9056A	Total/NA
Barium	0.121		0.0200		mg/L	10		6020B	Total/NA
Calcium	1220		5.00		mg/L	10		6020B	Total/NA
Cobalt	0.00747		0.00500		mg/L	10		6020B	Total/NA
Magnesium	334		5.00		mg/L	10		6020B	Total/NA
Manganese	32.2		1.00		mg/L	100		6020B	Total/NA
Potassium	1360		50.0		mg/L	100		6020B	Total/NA
Sodium	308		10.0		mg/L	10		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	421		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	421		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5500		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: UL-2R — Lab Sample ID: 310-265718-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3630		200		mg/L	200		9056A	Total/NA
Fluoride	1.36		1.00		mg/L	5		9056A	Total/NA
Sulfate	3280		200		mg/L	200		9056A	Total/NA
Aluminum	6.02		5.00		mg/L	100		6020B	Total/NA
Arsenic	0.234		0.200		mg/L	100		6020B	Total/NA
Barium	0.786		0.0200		mg/L	10		6020B	Total/NA
Cadmium	0.00440		0.00200		mg/L	10		6020B	Total/NA
Calcium	997		50.0		mg/L	100		6020B	Total/NA
Cobalt	0.0136		0.00500		mg/L	10		6020B	Total/NA
Magnesium	158		5.00		mg/L	10		6020B	Total/NA
Manganese	8.22		1.00		mg/L	100		6020B	Total/NA
Molybdenum	0.0961		0.0200		mg/L	10		6020B	Total/NA
Nickel	0.0746		0.0500		mg/L	10		6020B	Total/NA
Potassium	7740		50.0		mg/L	100		6020B	Total/NA
Selenium	0.719		0.0500		mg/L	10		6020B	Total/NA
Sodium	560		10.0		mg/L	10		6020B	Total/NA
Vanadium	0.347		0.0500		mg/L	10		6020B	Total/NA
Total Phosphorus as P	2.06		0.100		mg/L	1		365.1	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: UL-2R (Continued) — Lab Sample ID: 310-265718-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity as CaCO3 to pH 4.5	1800		25.0		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	945		25.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	13800		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: LL-3 — Lab Sample ID: 310-265718-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11100		200		mg/L	200		9056A	Total/NA
Fluoride	1.57		1.00		mg/L	5		9056A	Total/NA
Sulfate	11200		200		mg/L	200		9056A	Total/NA
Arsenic	0.0201		0.0200		mg/L	10		6020B	Total/NA
Barium	0.0765		0.0200		mg/L	10		6020B	Total/NA
Calcium	24.2		5.00		mg/L	10		6020B	Total/NA
Copper	0.0632		0.0500		mg/L	10		6020B	Total/NA
Lithium	0.381		0.100		mg/L	10		6020B	Total/NA
Magnesium	83.2		5.00		mg/L	10		6020B	Total/NA
Manganese	0.499		0.100		mg/L	10		6020B	Total/NA
Molybdenum	0.185		0.0200		mg/L	10		6020B	Total/NA
Nickel	0.0647		0.0500		mg/L	10		6020B	Total/NA
Potassium	31800		500		mg/L	1000		6020B	Total/NA
Sodium	1410		10.0		mg/L	10		6020B	Total/NA
Zinc	0.345		0.200		mg/L	10		6020B	Total/NA
Total Phosphorus as P	3.99		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1870		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	879		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	994		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	40700		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: L-Samp — Lab Sample ID: 310-265718-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15800		200		mg/L	200		9056A	Total/NA
Sulfate	10200		200		mg/L	200		9056A	Total/NA
Aluminum	1.51		0.500		mg/L	10		6020B	Total/NA
Arsenic	0.180		0.0200		mg/L	10		6020B	Total/NA
Barium	0.171		0.0200		mg/L	10		6020B	Total/NA
Calcium	297		50.0		mg/L	100		6020B	Total/NA
Chromium	1.03		0.0500		mg/L	10		6020B	Total/NA
Cobalt	0.00896		0.00500		mg/L	10		6020B	Total/NA
Copper	0.0797		0.0500		mg/L	10		6020B	Total/NA
Lithium	3.97		1.00		mg/L	100		6020B	Total/NA
Magnesium	139		5.00		mg/L	10		6020B	Total/NA
Manganese	0.531		0.100		mg/L	10		6020B	Total/NA
Molybdenum	0.177		0.0200		mg/L	10		6020B	Total/NA
Nickel	0.0656		0.0500		mg/L	10		6020B	Total/NA
Potassium	21600		500		mg/L	1000		6020B	Total/NA
Selenium	0.763		0.500		mg/L	100		6020B	Total/NA
Sodium	1850		10.0		mg/L	10		6020B	Total/NA
Vanadium	0.0652		0.0500		mg/L	10		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	3140		25.0		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1510		25.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	63200		2500		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: LL-1

Date Collected: 09/25/23 15:00
Date Received: 09/27/23 09:20
Sampler Name: Tyler Sindell

Lab Sample ID: 310-265718-1

Matrix: Water
Sampler Phone Number: 523-528-0949

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<500	*+	500		mg/L			10/05/23 20:07	500
Chloride	**2230**		200		mg/L			09/27/23 11:09	200
Fluoride	<1.00		1.00		mg/L			09/27/23 12:37	5
Sulfate	**3310**		200		mg/L			09/27/23 11:09	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.500		0.500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Antimony	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 15:31	10
Arsenic	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:02	10
Barium	**0.114**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:02	10
Beryllium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:02	10
Boron	<1.00		1.00		mg/L		10/02/23 09:45	10/13/23 14:02	10
Cadmium	<0.00200		0.00200		mg/L		10/02/23 09:45	10/13/23 15:31	10
Calcium	**512**		50.0		mg/L		10/02/23 09:45	10/13/23 13:50	100
Chromium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Cobalt	<0.00500		0.00500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Copper	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Lead	**0.122**		0.00500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Lithium	**3.02**		1.00		mg/L		10/02/23 09:45	10/13/23 13:50	100
Magnesium	<5.00	^+	5.00		mg/L		10/02/23 09:45	10/13/23 14:02	10
Manganese	<0.100		0.100		mg/L		10/02/23 09:45	10/13/23 14:02	10
Molybdenum	**0.0268**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:02	10
Nickel	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Potassium	**6430**		50.0		mg/L		10/02/23 09:45	10/13/23 13:50	100
Selenium	**0.0721**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Silver	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:02	10
Sodium	**170**		10.0		mg/L		10/02/23 09:45	10/13/23 15:31	10
Thallium	**0.0102**		0.0100		mg/L		10/02/23 09:45	10/13/23 14:02	10
Vanadium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:02	10
Zinc	<0.200		0.200		mg/L		10/02/23 09:45	10/13/23 14:02	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:45	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**3830**		25.0		mg/L			10/04/23 09:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<25.0		25.0		mg/L			10/04/23 09:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**331**		25.0		mg/L			10/04/23 09:51	1
Total Dissolved Solids (SM 2540C)	**14900**		2500		mg/L			09/27/23 16:12	1

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: LL-2

Date Collected: 09/25/23 14:05
Date Received: 09/27/23 09:20
Sampler Name: Tyler Sindell

Lab Sample ID: 310-265718-2

Matrix: Water
Sampler Phone Number: 523-528-0949

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00	*+	1.00		mg/L			10/05/23 20:27	1
Chloride	**2950**		200		mg/L			09/27/23 10:57	200
Fluoride	<1.00		1.00		mg/L			09/27/23 12:13	5
Sulfate	**1540**		200		mg/L			09/27/23 10:57	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.500		0.500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Antimony	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:04	10
Arsenic	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:04	10
Barium	**0.121**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:04	10
Beryllium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:04	10
Boron	<1.00		1.00		mg/L		10/02/23 09:45	10/13/23 14:04	10
Cadmium	<0.00200		0.00200		mg/L		10/02/23 09:45	10/13/23 14:04	10
Calcium	**1220**		5.00		mg/L		10/02/23 09:45	10/13/23 14:04	10
Chromium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Cobalt	**0.00747**		0.00500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Copper	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Lead	<0.00500		0.00500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Lithium	<0.100		0.100		mg/L		10/02/23 09:45	10/13/23 14:04	10
Magnesium	**334**		5.00		mg/L		10/02/23 09:45	10/13/23 15:33	10
Manganese	**32.2**		1.00		mg/L		10/02/23 09:45	10/13/23 13:52	100
Molybdenum	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:04	10
Nickel	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Potassium	**1360**		50.0		mg/L		10/02/23 09:45	10/13/23 13:52	100
Selenium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Silver	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:04	10
Sodium	**308**		10.0		mg/L		10/02/23 09:45	10/13/23 15:33	10
Thallium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:04	10
Vanadium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:04	10
Zinc	<0.200		0.200		mg/L		10/02/23 09:45	10/13/23 14:04	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:55	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**421**		5.00		mg/L			09/29/23 20:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**421**		5.00		mg/L			09/29/23 20:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			09/29/23 20:00	1
Total Dissolved Solids (SM 2540C)	**5500**		2500		mg/L			09/27/23 16:12	1

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: UL-2R

Date Collected: 09/25/23 13:55
Date Received: 09/27/23 09:20
Sampler Name: Tyler Sindell

Lab Sample ID: 310-265718-3

Matrix: Water
Sampler Phone Number: 523-528-0949

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<500	*+	500		mg/L			10/05/23 20:47	500
Chloride	**3630**		200		mg/L			09/27/23 10:45	200
Fluoride	**1.36**		1.00		mg/L			09/27/23 11:49	5
Sulfate	**3280**		200		mg/L			09/27/23 10:45	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6.02**		5.00		mg/L		10/02/23 09:45	10/13/23 13:55	100
Antimony	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:07	10
Arsenic	**0.234**		0.200		mg/L		10/02/23 09:45	10/13/23 13:55	100
Barium	**0.786**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:07	10
Beryllium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:07	10
Boron	<1.00		1.00		mg/L		10/02/23 09:45	10/13/23 14:07	10
Cadmium	**0.00440**		0.00200		mg/L		10/02/23 09:45	10/13/23 14:07	10
Calcium	**997**		50.0		mg/L		10/02/23 09:45	10/13/23 13:55	100
Chromium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:07	10
Cobalt	**0.0136**		0.00500		mg/L		10/02/23 09:45	10/13/23 14:07	10
Copper	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:07	10
Lead	<0.00500		0.00500		mg/L		10/02/23 09:45	10/13/23 14:07	10
Lithium	<0.100		0.100		mg/L		10/02/23 09:45	10/13/23 14:07	10
Magnesium	**158**		5.00		mg/L		10/02/23 09:45	10/13/23 15:35	10
Manganese	**8.22**		1.00		mg/L		10/02/23 09:45	10/13/23 13:55	100
Molybdenum	**0.0961**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:07	10
Nickel	**0.0746**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:07	10
Potassium	**7740**		50.0		mg/L		10/02/23 09:45	10/13/23 13:55	100
Selenium	**0.719**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:07	10
Silver	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:07	10
Sodium	**560**		10.0		mg/L		10/02/23 09:45	10/13/23 15:35	10
Thallium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:07	10
Vanadium	**0.347**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:07	10
Zinc	<0.200		0.200		mg/L		10/02/23 09:45	10/13/23 14:07	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**2.06**		0.100		mg/L		10/02/23 09:12	10/02/23 22:55	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1800**		25.0		mg/L			10/04/23 09:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<25.0		25.0		mg/L			10/04/23 09:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**945**		25.0		mg/L			10/04/23 09:51	1
Total Dissolved Solids (SM 2540C)	**13800**		2500		mg/L			09/27/23 16:12	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: LL-3

Date Collected: 09/25/23 13:15
Date Received: 09/27/23 09:20
Sampler Name: Tyler Sindell

Lab Sample ID: 310-265718-4

Matrix: Water
Sampler Phone Number: 523-528-0949

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<500	*+	500		mg/L			10/05/23 21:07	500
Chloride	**11100**		200		mg/L			09/27/23 11:33	200
Fluoride	**1.57**		1.00		mg/L			09/27/23 11:25	5
Sulfate	**11200**		200		mg/L			09/27/23 11:33	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.500		0.500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Antimony	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:19	10
Arsenic	**0.0201**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:19	10
Barium	**0.0765**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:19	10
Beryllium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:19	10
Boron	<1.00		1.00		mg/L		10/02/23 09:45	10/13/23 14:19	10
Cadmium	<0.00200		0.00200		mg/L		10/02/23 09:45	10/13/23 14:19	10
Calcium	**24.2**		5.00		mg/L		10/02/23 09:45	10/13/23 14:19	10
Chromium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Cobalt	<0.00500		0.00500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Copper	**0.0632**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Lead	<0.00500		0.00500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Lithium	**0.381**		0.100		mg/L		10/02/23 09:45	10/13/23 14:19	10
Magnesium	**83.2**		5.00		mg/L		10/02/23 09:45	10/13/23 15:38	10
Manganese	**0.499**		0.100		mg/L		10/02/23 09:45	10/13/23 14:19	10
Molybdenum	**0.185**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:19	10
Nickel	**0.0647**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Potassium	**31800**		500		mg/L		10/02/23 09:45	10/13/23 15:43	1000
Selenium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Silver	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:19	10
Sodium	**1410**		10.0		mg/L		10/02/23 09:45	10/13/23 15:38	10
Thallium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:19	10
Vanadium	<0.0500		0.0500		mg/L		10/02/23 09:45	10/13/23 14:19	10
Zinc	**0.345**		0.200		mg/L		10/02/23 09:45	10/13/23 14:19	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**3.99**		0.100		mg/L		10/02/23 09:36	10/02/23 22:59	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1870**		5.00		mg/L			09/29/23 20:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**879**		5.00		mg/L			09/29/23 20:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**994**		5.00		mg/L			09/29/23 20:35	1
Total Dissolved Solids (SM 2540C)	**40700**		2500		mg/L			09/27/23 16:12	1

Client Sample Results

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: L-Samp

Date Collected: 09/25/23 15:30
Date Received: 09/27/23 09:20
Sampler Name: Tyler Sindell

Lab Sample ID: 310-265718-5

Matrix: Water
Sampler Phone Number: 523-528-0949

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<500	*+	500		mg/L			10/05/23 21:27	500
Chloride	**15800**		200		mg/L			09/27/23 11:21	200
Fluoride	<1.00		1.00		mg/L			09/27/23 13:01	5
Sulfate	**10200**		200		mg/L			09/27/23 11:21	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.51**		0.500		mg/L		10/02/23 09:45	10/13/23 14:21	10
Antimony	<0.0200		0.0200		mg/L		10/02/23 09:45	10/13/23 14:21	10
Arsenic	**0.180**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:21	10
Barium	**0.171**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:21	10
Beryllium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:21	10
Boron	<1.00		1.00		mg/L		10/02/23 09:45	10/13/23 14:21	10
Cadmium	<0.00200		0.00200		mg/L		10/02/23 09:45	10/13/23 14:21	10
Calcium	**297**		50.0		mg/L		10/02/23 09:45	10/13/23 14:00	100
Chromium	**1.03**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:21	10
Cobalt	**0.00896**		0.00500		mg/L		10/02/23 09:45	10/13/23 14:21	10
Copper	**0.0797**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:21	10
Lead	<0.00500		0.00500		mg/L		10/02/23 09:45	10/13/23 14:21	10
Lithium	**3.97**		1.00		mg/L		10/02/23 09:45	10/13/23 14:00	100
Magnesium	**139**		5.00		mg/L		10/02/23 09:45	10/13/23 15:40	10
Manganese	**0.531**		0.100		mg/L		10/02/23 09:45	10/13/23 14:21	10
Molybdenum	**0.177**		0.0200		mg/L		10/02/23 09:45	10/13/23 14:21	10
Nickel	**0.0656**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:21	10
Potassium	**21600**		500		mg/L		10/02/23 09:45	10/13/23 15:45	1000
Selenium	**0.763**		0.500		mg/L		10/02/23 09:45	10/13/23 14:00	100
Silver	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:21	10
Sodium	**1850**		10.0		mg/L		10/02/23 09:45	10/13/23 15:40	10
Thallium	<0.0100		0.0100		mg/L		10/02/23 09:45	10/13/23 14:21	10
Vanadium	**0.0652**		0.0500		mg/L		10/02/23 09:45	10/13/23 14:21	10
Zinc	<0.200		0.200		mg/L		10/02/23 09:45	10/13/23 14:21	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.500		0.500		mg/L		09/29/23 09:21	09/30/23 12:13	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**3140**		25.0		mg/L			10/04/23 09:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<25.0		25.0		mg/L			10/04/23 09:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1510**		25.0		mg/L			10/04/23 09:51	1
Total Dissolved Solids (SM 2540C)	**63200**		2500		mg/L			09/27/23 16:12	1

Definitions/Glossary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-400948/3
Matrix: Water
Analysis Batch: 400948

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			09/27/23 09:12	1
Fluoride	<0.200		0.200		mg/L			09/27/23 09:12	1
Sulfate	<1.00		1.00		mg/L			09/27/23 09:12	1

Lab Sample ID: LCS 310-400948/4
Matrix: Water
Analysis Batch: 400948

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.846		mg/L		98	90 - 110
Fluoride	2.00	2.003		mg/L		100	90 - 110
Sulfate	10.0	10.56		mg/L		106	90 - 110

Lab Sample ID: MB 400-644248/41
Matrix: Water
Analysis Batch: 644248

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<1.00		1.00		mg/L			10/05/23 19:07	1

Lab Sample ID: LCS 400-644248/42
Matrix: Water
Analysis Batch: 644248

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromate	8.73	11.41	*+	mg/L		131	90 - 110

Lab Sample ID: LCSD 400-644248/43
Matrix: Water
Analysis Batch: 644248

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	8.73	11.31	*+	mg/L		130	90 - 110	1	15

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-401025/1-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		09/29/23 09:21	09/30/23 12:11	1

Lab Sample ID: LCS 310-401025/2-A
Matrix: Water
Analysis Batch: 401096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9978		mg/L		100	90 - 110

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: MB 310-401143/1-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		10/02/23 09:12	10/02/23 22:44	1

Lab Sample ID: LCS 310-401143/2-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9338		mg/L		93	90 - 110

Lab Sample ID: 310-265718-1 MS
Matrix: Water
Analysis Batch: 401231

Client Sample ID: LL-1
Prep Type: Total/NA
Prep Batch: 401143

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	<0.100		1.00	0.9808		mg/L		98	90 - 110

Lab Sample ID: 310-265718-1 MSD
Matrix: Water
Analysis Batch: 401231

Client Sample ID: LL-1
Prep Type: Total/NA
Prep Batch: 401143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	0.9880		mg/L		99	90 - 110	1	13

Lab Sample ID: MB 310-401150/1-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 401150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		10/02/23 09:36	10/02/23 22:56	1

Lab Sample ID: LCS 310-401150/2-A
Matrix: Water
Analysis Batch: 401231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 401150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	0.9370		mg/L		94	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: LCS 310-401159/25
Matrix: Water
Analysis Batch: 401159

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	989.9		mg/L		99	90 - 110

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 310-401439/1
Matrix: Water
Analysis Batch: 401439

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			1000	945.0		mg/L		94	90 - 110		

Lab Sample ID: 310-265718-1 DU
Matrix: Water
Analysis Batch: 401439

Client Sample ID: LL-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	3830			3827		mg/L				0	10
Bicarbonate Alkalinity as CaCO3	<25.0			<25.0		mg/L				NC	
Carbonate Alkalinity as CaCO3	331			378.0		mg/L				13	

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-400834/1
Matrix: Water
Analysis Batch: 400834

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			09/27/23 16:12	1

Lab Sample ID: LCS 310-400834/2
Matrix: Water
Analysis Batch: 400834

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	938.0		mg/L		94	90 - 110		

Lab Sample ID: 310-265718-2 DU
Matrix: Water
Analysis Batch: 400834

Client Sample ID: LL-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	5500			5300		mg/L				4	20

QC Association Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

HPLC/IC

Analysis Batch: 400948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	9056A	
310-265718-1	LL-1	Total/NA	Water	9056A	
310-265718-2	LL-2	Total/NA	Water	9056A	
310-265718-2	LL-2	Total/NA	Water	9056A	
310-265718-3	UL-2R	Total/NA	Water	9056A	
310-265718-3	UL-2R	Total/NA	Water	9056A	
310-265718-4	LL-3	Total/NA	Water	9056A	
310-265718-4	LL-3	Total/NA	Water	9056A	
310-265718-5	L-Samp	Total/NA	Water	9056A	
310-265718-5	L-Samp	Total/NA	Water	9056A	
MB 310-400948/3	Method Blank	Total/NA	Water	9056A	
LCS 310-400948/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 644248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	9056A	
310-265718-2	LL-2	Total/NA	Water	9056A	
310-265718-3	UL-2R	Total/NA	Water	9056A	
310-265718-4	LL-3	Total/NA	Water	9056A	
310-265718-5	L-Samp	Total/NA	Water	9056A	
MB 400-644248/41	Method Blank	Total/NA	Water	9056A	
LCS 400-644248/42	Lab Control Sample	Total/NA	Water	9056A	
LCSD 400-644248/43	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 400958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	3005A	
310-265718-2	LL-2	Total/NA	Water	3005A	
310-265718-3	UL-2R	Total/NA	Water	3005A	
310-265718-4	LL-3	Total/NA	Water	3005A	
310-265718-5	L-Samp	Total/NA	Water	3005A	

Analysis Batch: 402535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	6020B	400958
310-265718-1	LL-1	Total/NA	Water	6020B	400958
310-265718-2	LL-2	Total/NA	Water	6020B	400958
310-265718-2	LL-2	Total/NA	Water	6020B	400958
310-265718-3	UL-2R	Total/NA	Water	6020B	400958
310-265718-3	UL-2R	Total/NA	Water	6020B	400958
310-265718-4	LL-3	Total/NA	Water	6020B	400958
310-265718-5	L-Samp	Total/NA	Water	6020B	400958
310-265718-5	L-Samp	Total/NA	Water	6020B	400958

Analysis Batch: 402540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	6020B	400958
310-265718-2	LL-2	Total/NA	Water	6020B	400958
310-265718-3	UL-2R	Total/NA	Water	6020B	400958

Metals (Continued)

Analysis Batch: 402540 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-4	LL-3	Total/NA	Water	6020B	400958
310-265718-4	LL-3	Total/NA	Water	6020B	400958
310-265718-5	L-Samp	Total/NA	Water	6020B	400958
310-265718-5	L-Samp	Total/NA	Water	6020B	400958

General Chemistry

Analysis Batch: 400834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	SM 2540C	
310-265718-2	LL-2	Total/NA	Water	SM 2540C	
310-265718-3	UL-2R	Total/NA	Water	SM 2540C	
310-265718-4	LL-3	Total/NA	Water	SM 2540C	
310-265718-5	L-Samp	Total/NA	Water	SM 2540C	
MB 310-400834/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-400834/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-265718-2 DU	LL-2	Total/NA	Water	SM 2540C	

Prep Batch: 401025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-5	L-Samp	Total/NA	Water	365.1	
MB 310-401025/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-401025/2-A	Lab Control Sample	Total/NA	Water	365.1	

Analysis Batch: 401096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-5	L-Samp	Total/NA	Water	365.1	401025
MB 310-401025/1-A	Method Blank	Total/NA	Water	365.1	401025
LCS 310-401025/2-A	Lab Control Sample	Total/NA	Water	365.1	401025

Prep Batch: 401143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	365.1	
310-265718-2	LL-2	Total/NA	Water	365.1	
310-265718-3	UL-2R	Total/NA	Water	365.1	
MB 310-401143/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-401143/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-265718-1 MS	LL-1	Total/NA	Water	365.1	
310-265718-1 MSD	LL-1	Total/NA	Water	365.1	

Prep Batch: 401150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-4	LL-3	Total/NA	Water	365.1	
MB 310-401150/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-401150/2-A	Lab Control Sample	Total/NA	Water	365.1	

Analysis Batch: 401159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-2	LL-2	Total/NA	Water	SM 2320B	
310-265718-4	LL-3	Total/NA	Water	SM 2320B	
LCS 310-401159/25	Lab Control Sample	Total/NA	Water	SM 2320B	

QC Association Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

General Chemistry

Analysis Batch: 401231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	365.1	401143
310-265718-2	LL-2	Total/NA	Water	365.1	401143
310-265718-3	UL-2R	Total/NA	Water	365.1	401143
310-265718-4	LL-3	Total/NA	Water	365.1	401150
MB 310-401143/1-A	Method Blank	Total/NA	Water	365.1	401143
MB 310-401150/1-A	Method Blank	Total/NA	Water	365.1	401150
LCS 310-401143/2-A	Lab Control Sample	Total/NA	Water	365.1	401143
LCS 310-401150/2-A	Lab Control Sample	Total/NA	Water	365.1	401150
310-265718-1 MS	LL-1	Total/NA	Water	365.1	401143
310-265718-1 MSD	LL-1	Total/NA	Water	365.1	401143

Analysis Batch: 401439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-265718-1	LL-1	Total/NA	Water	SM 2320B	
310-265718-3	UL-2R	Total/NA	Water	SM 2320B	
310-265718-5	L-Samp	Total/NA	Water	SM 2320B	
LCS 310-401439/1	Lab Control Sample	Total/NA	Water	SM 2320B	
310-265718-1 DU	LL-1	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: LL-1

Lab Sample ID: 310-265718-1

Date Collected: 09/25/23 15:00

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 11:09
Total/NA	Analysis	9056A		5	400948	QTZ5	EET CF	09/27/23 12:37
Total/NA	Analysis	9056A		500	644248	JN	EET PEN	10/05/23 20:07
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		100	402535	A6US	EET CF	10/13/23 13:50
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402535	A6US	EET CF	10/13/23 14:02
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402540	A6US	EET CF	10/13/23 15:31
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:45
Total/NA	Analysis	SM 2320B		1	401439	MAQ3	EET CF	10/04/23 09:51
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: LL-2

Lab Sample ID: 310-265718-2

Date Collected: 09/25/23 14:05

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 10:57
Total/NA	Analysis	9056A		5	400948	QTZ5	EET CF	09/27/23 12:13
Total/NA	Analysis	9056A		1	644248	JN	EET PEN	10/05/23 20:27
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		100	402535	A6US	EET CF	10/13/23 13:52
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402535	A6US	EET CF	10/13/23 14:04
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402540	A6US	EET CF	10/13/23 15:33
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:55
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 20:00
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: UL-2R

Lab Sample ID: 310-265718-3

Date Collected: 09/25/23 13:55

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 10:45
Total/NA	Analysis	9056A		5	400948	QTZ5	EET CF	09/27/23 11:49
Total/NA	Analysis	9056A		500	644248	JN	EET PEN	10/05/23 20:47
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		100	402535	A6US	EET CF	10/13/23 13:55

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: UL-2R

Lab Sample ID: 310-265718-3

Date Collected: 09/25/23 13:55

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402535	A6US	EET CF	10/13/23 14:07
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402540	A6US	EET CF	10/13/23 15:35
Total/NA	Prep	365.1			401143	MAQ3	EET CF	10/02/23 09:12
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:55
Total/NA	Analysis	SM 2320B		1	401439	MAQ3	EET CF	10/04/23 09:51
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: LL-3

Lab Sample ID: 310-265718-4

Date Collected: 09/25/23 13:15

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	400948	QTZ5	EET CF	09/27/23 11:25
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 11:33
Total/NA	Analysis	9056A		500	644248	JN	EET PEN	10/05/23 21:07
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402535	A6US	EET CF	10/13/23 14:19
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402540	A6US	EET CF	10/13/23 15:38
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		1000	402540	A6US	EET CF	10/13/23 15:43
Total/NA	Prep	365.1			401150	MAQ3	EET CF	10/02/23 09:36
Total/NA	Analysis	365.1		1	401231	ZJX4	EET CF	10/02/23 22:59
Total/NA	Analysis	SM 2320B		1	401159	MAQ3	EET CF	09/29/23 20:35
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Client Sample ID: L-Samp

Lab Sample ID: 310-265718-5

Date Collected: 09/25/23 15:30

Matrix: Water

Date Received: 09/27/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		200	400948	QTZ5	EET CF	09/27/23 11:21
Total/NA	Analysis	9056A		5	400948	QTZ5	EET CF	09/27/23 13:01
Total/NA	Analysis	9056A		500	644248	JN	EET PEN	10/05/23 21:27
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		100	402535	A6US	EET CF	10/13/23 14:00
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402535	A6US	EET CF	10/13/23 14:21
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		10	402540	A6US	EET CF	10/13/23 15:40
Total/NA	Prep	3005A			400958	KCK5	EET CF	10/02/23 09:45
Total/NA	Analysis	6020B		1000	402540	A6US	EET CF	10/13/23 15:45

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Client Sample ID: L-Samp

Date Collected: 09/25/23 15:30
Date Received: 09/27/23 09:20

Lab Sample ID: 310-265718-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	365.1			401025	MAQ3	EET CF	09/29/23 09:21
Total/NA	Analysis	365.1		1	401096	WZC8	EET CF	09/30/23 12:13
Total/NA	Analysis	SM 2320B		1	401439	MAQ3	EET CF	10/04/23 09:51
Total/NA	Analysis	SM 2540C		1	400834	D7CP	EET CF	09/27/23 16:12

Laboratory References:

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

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-265718-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-265718-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET PEN
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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 PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing America

310-265718 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE IL | Project:

Receipt Information

Date/Time Received: DATE 9-27-23 | TIME 920 | 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? No	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
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): 3.1 | Corrected Temp (°C): 3.1

• **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

LL-3 listed twice on COC - LL-1 received but not listed on COC

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

Chain of Custody Record

eurofins

Client Information	Sampler: Tyler Sundell	Lab PM: Calhoun Conner M	Carrier Tracking No(s):	COC No: 310-79182-22267 1
Client Contact: Krista Brodersen	Phone: 573-528-0949	E-Mail: Conner Calhoun@et.eurofinsus com	State of Origin:	Page: Page 1 of 1
Company: Blackstone Environmental Inc	PWSID:			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested: STD			
City: Moline	TAT Requested (days):			
State, Zip: IL, 61265	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: kbrodersen@blackstone-env com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
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	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)	2540C_Calcd- TDS	2320B- Bicarbonate and Carbonate alkalinity	6020B- Client list metals	9056_ORGFM_48H Nitrate/Nitrite	9056A_ORGFM_28D- Chloride, Sulfate, and Fluoride	365.1- Total Phosphorous	9300.1_28D - (MOD) - Bromate (sub 125ml ethylene diamine to Savannah)	Total Number of containers	Special Instructions/Note:
			Preservation Code:												pH Cond
LL-3	9-25-23	1315	G	W			X	X	X	X	X	X	X		Nitrates- 48hr hold time 9.82
LL-2		1405													9637 12070
LL-2R		1355													1238 24740
LL-3		1315													982 60340
L-Samp		1530													1259 29400

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Tyler Sundell	9-25-23 1702	BEI		9-27-23 920	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	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.

Ver: 01/16/2019

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-65761.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-265718-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 10/10/2023			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
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)	9056A_ORGFM_28D/ (MOD) Local Method	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
LL-1 (310-265718-1)	9/25/23	15:00 Central		Water			X	1	
LL-2 (310-265718-2)	9/25/23	14:05 Central		Water			X	1	
UL-2R (310-265718-3)	9/25/23	13:55 Central		Water			X	1	
LL-3 (310-265718-4)	9/25/23	13:15 Central		Water			X	1	
L-Samp (310-265718-5)	9/25/23	15:30 Central		Water			X	1	

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

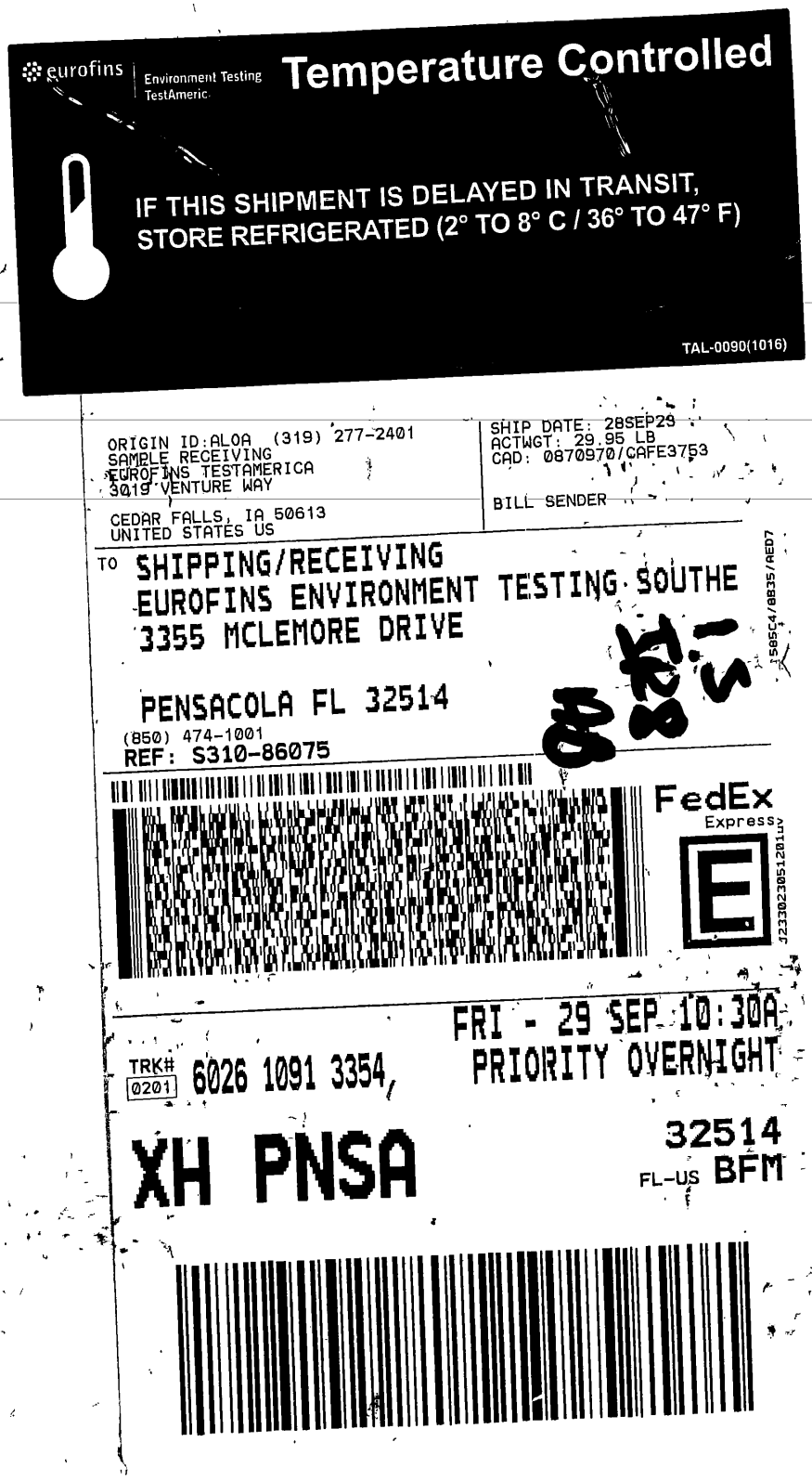
Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	T Deth	92223 1250				
	Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company
	Relinquished by:	Date/Time	Company	Received by:	Date/Time 9.29.23 8:42	Company

Custody Seals Intact. ∆ Yes ∆ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks: 1.5 IR8

Ver: 06/08/2021


eurofins
Environment Testing
TestAmerica
Temperature Controlled
IF THIS SHIPMENT IS DELAYED IN TRANSIT,
STORE REFRIGERATED (2° TO 8° C / 36° TO 47° F)
TAL-0090(1016)
ORIGIN ID:ALOA (319) 277-2401
SAMPLE RECEIVING
EUROFINS TESTAMERICA
3019 VENTURE WAY
CEDAR FALLS, IA 50613
UNITED STATES US
SHIP DATE: 28SEP23
ACTWGT: 29.95 LB
CAD: 0870970/CAFE3753
BILL SENDER
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHE
3355 MCLEMORE DRIVE
PENSACOLA FL 32514
(850) 474-1001
REF: S310-86075
FedEx
Express
FRI - 29 SEP 10:30A
PRIORITY OVERNIGHT
TRK# 0201 6026 1091 3354
XH PNSA
32514
FL-US BFM

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-265718-1

Login Number: 265718
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.	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.	False	LL-1 was received, not listed on COC. LL-3 listed twice on COC.
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: Blackstone Environmental, Inc

Job Number: 310-265718-1

Login Number: 265718
List Number: 2
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola
List Creation: 09/29/23 12:57 PM

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	1.5°C IR8
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.	N/A	
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	

MARCH 2023 LABORATORY REPORT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Brodersen
Blackstone Environmental, Inc
1465 41st Street
Suite 13
Moline, Illinois 61265

Generated 4/11/2023 8:04:06 AM

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-251732-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

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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4/11/2023 8:04:06 AM

Authorized for release by
Conner Calhoun, Project Management Assistant I
Conner.Calhoun@et.eurofinsus.com
(319)277-2401

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Job ID: 310-251732-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-251732-1

Receipt
The samples were received on 3/21/2023 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.2°C and 0.3°C

HPLC/IC
Method 300.1B_28D: Surrogate recovery for the following samples were outside control limits: MW-1B (310-251732-1), MW-5 (310-251732-3), MW-16 (310-251732-4), MW-21 (310-251732-8), (310-251732-A-1 MS) and (310-251732-A-1 MSD). Evidence of matrix interference is present; therefore, re-analysis was not performed.

Method 300.1B_28D: The following samples were diluted due to the nature of the sample matrix: MW-18 (310-251732-5). Elevated reporting limits (RLs) are provided.

Method 300.1B_28D: LCS surrogate fails slightly outside control limits at 89%. LCSD surrogate passes.(LCS 680-772177/40)

Method 300.1B_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-772176 were outside control limits for bromate, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Metals
Method 6020B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: MW-5 (310-251732-3), MW-16 (310-251732-4) and MW-18 (310-251732-5).

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.

Job ID: 310-251732-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-251732-2

Receipt
The samples were received on 3/21/2023 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.2°C and 0.3°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: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-251732-1	MW-1B	Water	03/20/23 12:22	03/21/23 08:50
310-251732-2	MW-1A	Water	03/20/23 12:15	03/21/23 08:50
310-251732-3	MW-5	Water	03/20/23 15:30	03/21/23 08:50
310-251732-4	MW-16	Water	03/20/23 14:10	03/21/23 08:50
310-251732-5	MW-18	Water	03/20/23 13:12	03/21/23 08:50
310-251732-6	MW-3L	Water	03/20/23 15:05	03/21/23 08:50
310-251732-7	MW-16L	Water	03/20/23 14:25	03/21/23 08:50
310-251732-8	MW-21	Water	03/20/23 13:40	03/21/23 08:50

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-1B — Lab Sample ID: 310-251732-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.2		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.248		0.100		mg/L	1		9056A	Total/NA
Sulfate	463		10.0		mg/L	10		9056A	Total/NA
Barium	0.0713		0.00200		mg/L	1		6020B	Total/NA
Boron	0.174		0.100		mg/L	1		6020B	Total/NA
Calcium	196		0.500		mg/L	1		6020B	Total/NA
Magnesium	80.6		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0242		0.0100		mg/L	1		6020B	Total/NA
Potassium	6.95		0.500		mg/L	1		6020B	Total/NA
Sodium	18.5		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	417		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	417		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	928		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1A — Lab Sample ID: 310-251732-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.42		1.00		mg/L	1		9056A	Total/NA
Fluoride	1.01		0.100		mg/L	1		9056A	Total/NA
Sulfate	22.8		1.00		mg/L	1		9056A	Total/NA
Barium	0.122		0.00200		mg/L	1		6020B	Total/NA
Boron	1.20		0.100		mg/L	1		6020B	Total/NA
Calcium	69.3		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0973		0.0100		mg/L	1		6020B	Total/NA
Magnesium	43.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0231		0.0100		mg/L	1		6020B	Total/NA
Potassium	11.5		0.500		mg/L	1		6020B	Total/NA
Sodium	42.8		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	424		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	424		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	338		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 310-251732-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	715		10.0		mg/L	10		9056A	Total/NA
Fluoride	0.273		0.100		mg/L	1		9056A	Total/NA
Sulfate	1050		20.0		mg/L	20		9056A	Total/NA
Barium	0.0363		0.00200		mg/L	1		6020B	Total/NA
Boron	0.179		0.100		mg/L	1		6020B	Total/NA
Calcium	487		5.00		mg/L	10		6020B	Total/NA
Cobalt	0.00511		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0874		0.0100		mg/L	1		6020B	Total/NA
Magnesium	177		5.00		mg/L	10		6020B	Total/NA
Manganese	0.583		0.0100		mg/L	1		6020B	Total/NA
Potassium	292		5.00		mg/L	10		6020B	Total/NA
Sodium	70.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	385		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	385		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	2700		250		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-16 — Lab Sample ID: 310-251732-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	110		10.0		mg/L	10		9056A	Total/NA
Fluoride	0.316		0.100		mg/L	1		9056A	Total/NA
Sulfate	593		10.0		mg/L	10		9056A	Total/NA
Barium	0.0594		0.00200		mg/L	1		6020B	Total/NA
Boron	0.397		0.100		mg/L	1		6020B	Total/NA
Calcium	162		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0682		0.0100		mg/L	1		6020B	Total/NA
Magnesium	87.4		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0339		0.0100		mg/L	1		6020B	Total/NA
Potassium	158		5.00		mg/L	10		6020B	Total/NA
Sodium	75.3		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	331		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	331		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1380		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-18 — Lab Sample ID: 310-251732-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1580		100		mg/L	100		9056A	Total/NA
Nitrate as N	0.999		0.100		mg/L	1		9056A	Total/NA
Fluoride	2.29		0.100		mg/L	1		9056A	Total/NA
Sulfate	3140		100		mg/L	100		9056A	Total/NA
Lithium	0.685		0.100		mg/L	10		6020B	Total/NA
Molybdenum	0.222		0.0200		mg/L	10		6020B	Total/NA
Potassium	6970		50.0		mg/L	100		6020B	Total/NA
Sodium	442		10.0		mg/L	10		6020B	Total/NA
Total Phosphorus as P	0.197		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1720		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	98.5		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1630		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8700		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3L — Lab Sample ID: 310-251732-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.3		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.319		0.100		mg/L	1		9056A	Total/NA
Sulfate	55.8		1.00		mg/L	1		9056A	Total/NA
Barium	0.0740		0.00200		mg/L	1		6020B	Total/NA
Boron	0.241		0.100		mg/L	1		6020B	Total/NA
Calcium	103		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000843		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0256		0.0100		mg/L	1		6020B	Total/NA
Magnesium	44.9		0.500		mg/L	1		6020B	Total/NA
Manganese	0.195		0.0100		mg/L	1		6020B	Total/NA
Potassium	5.90		0.500		mg/L	1		6020B	Total/NA
Sodium	21.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	394		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	394		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	388		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-16L — Lab Sample ID: 310-251732-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromate	36.8		5.00		ug/L	1		300.1B-1997 R1.	Total/NA
Chloride	1.27		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.338		0.100		mg/L	1		9056A	Total/NA
Sulfate	31.3		1.00		mg/L	1		9056A	Total/NA
Barium	0.0729		0.00200		mg/L	1		6020B	Total/NA
Boron	0.231		0.100		mg/L	1		6020B	Total/NA
Calcium	81.0		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0202		0.0100		mg/L	1		6020B	Total/NA
Magnesium	34.0		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0784		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.05		0.500		mg/L	1		6020B	Total/NA
Sodium	11.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	323		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	323		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	268		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 310-251732-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.50		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.367		0.100		mg/L	1		9056A	Total/NA
Sulfate	28.6		1.00		mg/L	1		9056A	Total/NA
Barium	0.134		0.00200		mg/L	1		6020B	Total/NA
Boron	0.205		0.100		mg/L	1		6020B	Total/NA
Calcium	90.0		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0226		0.0100		mg/L	1		6020B	Total/NA
Magnesium	35.2		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0220		0.0100		mg/L	1		6020B	Total/NA
Potassium	3.48		0.500		mg/L	1		6020B	Total/NA
Sodium	19.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	396		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	396		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	358		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-1B

Date Collected: 03/20/23 12:22
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-1

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00	F1	5.00		ug/L			04/07/23 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*89*	*S1-*	*90 - 115*		*04/07/23 22:15*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.2**		1.00		mg/L			03/21/23 14:01	1
Nitrate as N	<0.100		0.100		mg/L			03/21/23 14:01	1
Fluoride	**0.248**		0.100		mg/L			03/21/23 14:01	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 14:01	1
Sulfate	**463**		10.0		mg/L			03/22/23 09:31	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:42	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:42	1
Barium	**0.0713**		0.00200		mg/L		03/24/23 09:00	03/24/23 20:42	1
Beryllium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/27/23 13:49	1
Boron	**0.174**		0.100		mg/L		03/24/23 09:00	03/24/23 20:42	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 20:42	1
Calcium	**196**		0.500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Cobalt	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Copper	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 13:49	1
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Lithium	<0.0100		0.0100		mg/L		03/24/23 09:00	03/24/23 20:42	1
Magnesium	**80.6**		0.500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Manganese	**0.0242**		0.0100		mg/L		03/24/23 09:00	03/24/23 20:42	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:42	1
Nickel	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 13:49	1
Potassium	**6.95**		0.500		mg/L		03/24/23 09:00	03/27/23 13:49	1
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:42	1
Sodium	**18.5**		1.00		mg/L		03/24/23 09:00	03/24/23 20:42	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:42	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:42	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 20:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:19	03/22/23 22:45	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**417**		5.00		mg/L			03/27/23 15:56	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**417**		5.00		mg/L			03/27/23 15:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 15:56	1
Total Dissolved Solids (SM 2540C)	**928**		50.0		mg/L			03/22/23 15:25	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-1A

Date Collected: 03/20/23 12:15
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-2

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/07/23 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*90*		*90 - 115*		*04/07/23 23:54*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.42**		1.00		mg/L			03/21/23 14:16	1
Nitrate as N	<0.100		0.100		mg/L			03/21/23 14:16	1
Fluoride	**1.01**		0.100		mg/L			03/21/23 14:16	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 14:16	1
Sulfate	**22.8**		1.00		mg/L			03/21/23 14:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:45	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:45	1
Barium	**0.122**		0.00200		mg/L		03/24/23 09:00	03/24/23 20:45	1
Beryllium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/27/23 13:52	1
Boron	**1.20**		0.100		mg/L		03/24/23 09:00	03/24/23 20:45	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 20:45	1
Calcium	**69.3**		0.500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Cobalt	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Copper	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 13:52	1
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Lithium	**0.0973**		0.0100		mg/L		03/24/23 09:00	03/24/23 20:45	1
Magnesium	**43.9**		0.500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Manganese	**0.0231**		0.0100		mg/L		03/24/23 09:00	03/24/23 20:45	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:45	1
Nickel	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 13:52	1
Potassium	**11.5**		0.500		mg/L		03/24/23 09:00	03/27/23 13:52	1
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:45	1
Sodium	**42.8**		1.00		mg/L		03/24/23 09:00	03/24/23 20:45	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:45	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:45	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 20:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:19	03/22/23 22:45	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**424**		5.00		mg/L			03/27/23 16:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**424**		5.00		mg/L			03/27/23 16:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 16:22	1
Total Dissolved Solids (SM 2540C)	**338**		50.0		mg/L			03/22/23 15:25	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-5

Date Collected: 03/20/23 15:30
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-3

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*69*	*S1-*	*90 - 115*		*04/08/23 00:27*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**715**		10.0		mg/L			03/22/23 09:45	10
Nitrate as N	<0.100		0.100		mg/L			03/21/23 14:30	1
Fluoride	**0.273**		0.100		mg/L			03/21/23 14:30	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 14:30	1
Sulfate	**1050**		20.0		mg/L			03/22/23 11:49	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 20:48	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:48	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:48	1
Barium	**0.0363**		0.00200		mg/L		03/24/23 09:00	03/24/23 20:48	1
Beryllium	<0.0100		0.0100		mg/L		03/24/23 09:00	03/27/23 13:55	10
Boron	**0.179**		0.100		mg/L		03/24/23 09:00	03/24/23 20:48	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 20:48	1
Calcium	**487**		5.00		mg/L		03/24/23 09:00	03/27/23 13:55	10
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:48	1
Cobalt	**0.00511**		0.000500		mg/L		03/24/23 09:00	03/24/23 20:48	1
Copper	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 13:55	10
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 20:48	1
Lithium	**0.0874**		0.0100		mg/L		03/24/23 09:00	03/24/23 20:48	1
Magnesium	**177**		5.00		mg/L		03/24/23 09:00	03/27/23 13:55	10
Manganese	**0.583**		0.0100		mg/L		03/24/23 09:00	03/24/23 20:48	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:48	1
Nickel	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 13:55	10
Potassium	**292**		5.00		mg/L		03/24/23 09:00	03/27/23 13:55	10
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:48	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:48	1
Sodium	**70.9**		1.00		mg/L		03/24/23 09:00	03/24/23 20:48	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:48	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:48	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 23:00	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**385**		5.00		mg/L			03/27/23 16:31	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**385**		5.00		mg/L			03/27/23 16:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 16:31	1
Total Dissolved Solids (SM 2540C)	**2700**		250		mg/L			03/22/23 15:25	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-16

Date Collected: 03/20/23 14:10
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-4

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*88*	*S1-*	*90 - 115*		*04/08/23 01:00*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		10.0		mg/L			03/22/23 10:00	10
Nitrate as N	<0.100		0.100		mg/L			03/21/23 14:45	1
Fluoride	**0.316**		0.100		mg/L			03/21/23 14:45	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 14:45	1
Sulfate	**593**		10.0		mg/L			03/22/23 10:00	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:51	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:51	1
Barium	**0.0594**		0.00200		mg/L		03/24/23 09:00	03/24/23 20:51	1
Beryllium	<0.0100		0.0100		mg/L		03/24/23 09:00	03/27/23 13:58	10
Boron	**0.397**		0.100		mg/L		03/24/23 09:00	03/24/23 20:51	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 20:51	1
Calcium	**162**		0.500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Cobalt	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Copper	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 13:58	10
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Lithium	**0.0682**		0.0100		mg/L		03/24/23 09:00	03/24/23 20:51	1
Magnesium	**87.4**		0.500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Manganese	**0.0339**		0.0100		mg/L		03/24/23 09:00	03/24/23 20:51	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 20:51	1
Nickel	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 13:58	10
Potassium	**158**		5.00		mg/L		03/24/23 09:00	03/27/23 13:58	10
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:51	1
Sodium	**75.3**		1.00		mg/L		03/24/23 09:00	03/24/23 20:51	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 20:51	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 20:51	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 20:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 23:00	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**331**		5.00		mg/L			03/27/23 16:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**331**		5.00		mg/L			03/27/23 16:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 16:39	1
Total Dissolved Solids (SM 2540C)	**1380**		50.0		mg/L			03/22/23 15:25	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-18

Date Collected: 03/20/23 13:12
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-5

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<125		125		ug/L			04/08/23 16:59	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*96*		*90 - 115*		*04/08/23 16:59*	*25*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1580**		100		mg/L			03/22/23 12:03	100
Nitrate as N	**0.999**		0.100		mg/L			03/21/23 15:00	1
Fluoride	**2.29**		0.100		mg/L			03/21/23 15:00	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 15:00	1
Sulfate	**3140**		100		mg/L			03/22/23 12:03	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.500		0.500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Arsenic	<0.0200		0.0200		mg/L		03/24/23 09:00	03/27/23 14:01	10
Antimony	<0.0200		0.0200		mg/L		03/24/23 09:00	03/27/23 14:01	10
Barium	<0.0200		0.0200		mg/L		03/24/23 09:00	03/27/23 14:01	10
Beryllium	<0.0100		0.0100		mg/L		03/24/23 09:00	03/27/23 14:01	10
Boron	<1.00		1.00		mg/L		03/24/23 09:00	03/27/23 14:01	10
Cadmium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/27/23 14:01	10
Calcium	<5.00		5.00		mg/L		03/24/23 09:00	03/27/23 14:01	10
Chromium	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Cobalt	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Copper	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Lead	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Lithium	**0.685**		0.100		mg/L		03/24/23 09:00	03/27/23 14:01	10
Magnesium	<5.00		5.00		mg/L		03/24/23 09:00	03/27/23 14:01	10
Manganese	<0.100		0.100		mg/L		03/24/23 09:00	03/27/23 14:01	10
Molybdenum	**0.222**		0.0200		mg/L		03/24/23 09:00	03/27/23 14:01	10
Nickel	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Potassium	**6970**		50.0		mg/L		03/24/23 09:00	03/27/23 15:38	100
Selenium	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Silver	<0.0100		0.0100		mg/L		03/24/23 09:00	03/27/23 14:01	10
Sodium	**442**		10.0		mg/L		03/24/23 09:00	03/27/23 14:01	10
Thallium	<0.0100		0.0100		mg/L		03/24/23 09:00	03/27/23 14:01	10
Vanadium	<0.0500		0.0500		mg/L		03/24/23 09:00	03/27/23 14:01	10
Zinc	<0.200		0.200		mg/L		03/24/23 09:00	03/27/23 14:01	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.197**		0.100		mg/L		03/22/23 13:45	03/22/23 22:59	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1720**		5.00		mg/L			03/27/23 16:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**98.5**		5.00		mg/L			03/27/23 16:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1630**		5.00		mg/L			03/27/23 16:47	1
Total Dissolved Solids (SM 2540C)	**8700**		2500		mg/L			03/22/23 15:25	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-3L

Date Collected: 03/20/23 15:05
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-6

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 02:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*96*		*90 - 115*		*04/08/23 02:05*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.3**		1.00		mg/L			03/21/23 15:14	1
Nitrate as N	<0.100		0.100		mg/L			03/21/23 15:14	1
Fluoride	**0.319**		0.100		mg/L			03/21/23 15:14	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 15:14	1
Sulfate	**55.8**		1.00		mg/L			03/21/23 15:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:20	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:20	1
Barium	**0.0740**		0.00200		mg/L		03/24/23 09:00	03/24/23 21:20	1
Beryllium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/27/23 14:07	1
Boron	**0.241**		0.100		mg/L		03/24/23 09:00	03/24/23 21:20	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 21:20	1
Calcium	**103**		0.500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Cobalt	**0.000843**		0.000500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Copper	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:07	1
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Lithium	**0.0256**		0.0100		mg/L		03/24/23 09:00	03/24/23 21:20	1
Magnesium	**44.9**		0.500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Manganese	**0.195**		0.0100		mg/L		03/24/23 09:00	03/24/23 21:20	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:20	1
Nickel	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:07	1
Potassium	**5.90**		0.500		mg/L		03/24/23 09:00	03/27/23 14:07	1
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 21:20	1
Sodium	**21.9**		1.00		mg/L		03/24/23 09:00	03/24/23 21:20	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 21:20	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:20	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 21:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 12:35	03/22/23 22:36	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**394**		5.00		mg/L			03/27/23 17:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**394**		5.00		mg/L			03/27/23 17:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 17:08	1
Total Dissolved Solids (SM 2540C)	**388**		50.0		mg/L			03/22/23 15:25	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-16L

Date Collected: 03/20/23 14:25
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-7

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	**36.8**		5.00		ug/L			04/08/23 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*91*		*90 - 115*		*04/08/23 02:38*	*1*
Dichloroacetic acid(Surr)	*92*		*90 - 115*		*04/08/23 17:32*	*5*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.27**		1.00		mg/L			03/21/23 15:29	1
Nitrate as N	<0.100		0.100		mg/L			03/21/23 15:29	1
Fluoride	**0.338**		0.100		mg/L			03/21/23 15:29	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 15:29	1
Sulfate	**31.3**		1.00		mg/L			03/21/23 15:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:23	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:23	1
Barium	**0.0729**		0.00200		mg/L		03/24/23 09:00	03/24/23 21:23	1
Beryllium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/27/23 14:10	1
Boron	**0.231**		0.100		mg/L		03/24/23 09:00	03/24/23 21:23	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 21:23	1
Calcium	**81.0**		0.500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Cobalt	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Copper	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:10	1
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Lithium	**0.0202**		0.0100		mg/L		03/24/23 09:00	03/24/23 21:23	1
Magnesium	**34.0**		0.500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Manganese	**0.0784**		0.0100		mg/L		03/24/23 09:00	03/24/23 21:23	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:23	1
Nickel	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:10	1
Potassium	**4.05**		0.500		mg/L		03/24/23 09:00	03/27/23 14:10	1
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 21:23	1
Sodium	**11.9**		1.00		mg/L		03/24/23 09:00	03/24/23 21:23	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 21:23	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:23	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 21:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 12:35	03/22/23 22:26	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**323**		5.00		mg/L			03/27/23 17:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**323**		5.00		mg/L			03/27/23 17:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 17:27	1
Total Dissolved Solids (SM 2540C)	**268**		50.0		mg/L			03/22/23 15:25	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-21

Date Collected: 03/20/23 13:40
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-8

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 04:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*89*	*S1-*	*90 - 115*		*04/08/23 04:50*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.50**		1.00		mg/L			03/21/23 15:43	1
Nitrate as N	<0.100		0.100		mg/L			03/21/23 15:43	1
Fluoride	**0.367**		0.100		mg/L			03/21/23 15:43	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 15:43	1
Sulfate	**28.6**		1.00		mg/L			03/21/23 15:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:26	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:26	1
Barium	**0.134**		0.00200		mg/L		03/24/23 09:00	03/24/23 21:26	1
Beryllium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/27/23 14:33	1
Boron	**0.205**		0.100		mg/L		03/24/23 09:00	03/24/23 21:26	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 21:26	1
Calcium	**90.0**		0.500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Cobalt	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Copper	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:33	1
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Lithium	**0.0226**		0.0100		mg/L		03/24/23 09:00	03/24/23 21:26	1
Magnesium	**35.2**		0.500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Manganese	**0.0220**		0.0100		mg/L		03/24/23 09:00	03/24/23 21:26	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 21:26	1
Nickel	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 14:33	1
Potassium	**3.48**		0.500		mg/L		03/24/23 09:00	03/27/23 14:33	1
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 21:26	1
Sodium	**19.9**		1.00		mg/L		03/24/23 09:00	03/24/23 21:26	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 21:26	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 21:26	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 21:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 22:57	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**396**		5.00		mg/L			03/27/23 17:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**396**		5.00		mg/L			03/27/23 17:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 17:35	1
Total Dissolved Solids (SM 2540C)	**358**		50.0		mg/L			03/22/23 15:25	1

Definitions/Glossary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.

General Chemistry

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.

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: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	DCAA (90-115)						
310-251732-1	MW-1B	89 S1-						
310-251732-1 MS	MW-1B	88 S1-						
310-251732-1 MSD	MW-1B	87 S1-						
310-251732-2	MW-1A	90						
310-251732-3	MW-5	69 S1-						
310-251732-4	MW-16	88 S1-						
310-251732-5	MW-18	96						
310-251732-6	MW-3L	96						
310-251732-7	MW-16L	91						
310-251732-7	MW-16L	92						
310-251732-8	MW-21	89 S1-						
LCS 680-772176/8	Lab Control Sample	102						
LCS 680-772177/40	Lab Control Sample	89 S1-						
LCSD 680-772176/9	Lab Control Sample Dup	104						
LCSD 680-772177/41	Lab Control Sample Dup	94						
MB 680-772176/7	Method Blank	101						
MB 680-772177/38	Method Blank	94						

Surrogate Legend

DCAA = Dichloroacetic acid(Surr)

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC)

Lab Sample ID: MB 680-772176/7
Matrix: Water
Analysis Batch: 772176

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/07/23 18:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*101*		*90 - 115*		*04/07/23 18:25*	*1*

Lab Sample ID: LCS 680-772176/8
Matrix: Water
Analysis Batch: 772176

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			50.0	51.04		ug/L		102	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*102*		*90 - 115*

Lab Sample ID: LCSD 680-772176/9
Matrix: Water
Analysis Batch: 772176

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			50.0	50.56		ug/L		101	85 - 115	1	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*104*		*90 - 115*

Lab Sample ID: 310-251732-1 MS
Matrix: Water
Analysis Batch: 772176

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate	<5.00	F1	50.0	<5.00	F1	ug/L		0	75 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*88*	*S1-*	*90 - 115*

Lab Sample ID: 310-251732-1 MSD
Matrix: Water
Analysis Batch: 772176

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<5.00	F1	50.0	<5.00	F1	ug/L		0	75 - 125	NC	10

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*87*	*S1-*	*90 - 115*

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC) (Continued)

Lab Sample ID: MB 680-772177/38
Matrix: Water
Analysis Batch: 772177

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 12:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*94*		*90 - 115*		*04/08/23 12:31*	*1*

Lab Sample ID: LCS 680-772177/40
Matrix: Water
Analysis Batch: 772177

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			50.0	46.97		ug/L		94	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*89*	*S1-*	*90 - 115*

Lab Sample ID: LCSD 680-772177/41
Matrix: Water
Analysis Batch: 772177

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			50.0	47.07		ug/L		94	85 - 115	0	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*94*		*90 - 115*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-381951/3
Matrix: Water
Analysis Batch: 381951

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			03/21/23 12:19	1
Nitrate as N	<0.100		0.100		mg/L			03/21/23 12:19	1
Fluoride	<0.100		0.100		mg/L			03/21/23 12:19	1
Nitrite as N	<0.100		0.100		mg/L			03/21/23 12:19	1
Sulfate	<1.00		1.00		mg/L			03/21/23 12:19	1

Lab Sample ID: LCS 310-381951/4
Matrix: Water
Analysis Batch: 381951

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	9.948		mg/L		99	90 - 110		
Nitrate as N			2.00	2.122		mg/L		106	90 - 110		
Fluoride			2.00	2.145		mg/L		107	90 - 110		
Nitrite as N			2.00	2.143		mg/L		107	90 - 110		
Sulfate			10.0	10.09		mg/L		101	90 - 110		

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-382107/1-A
Matrix: Water
Analysis Batch: 382249

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 382107

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Arsenic	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 16:18	1
Antimony	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 16:18	1
Barium	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 16:18	1
Beryllium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 16:18	1
Boron	<0.100		0.100		mg/L		03/24/23 09:00	03/24/23 16:18	1
Cadmium	<0.000100		0.000100		mg/L		03/24/23 09:00	03/24/23 16:18	1
Calcium	<0.500		0.500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Chromium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Cobalt	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Copper	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Lead	<0.000500		0.000500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Lithium	<0.0100		0.0100		mg/L		03/24/23 09:00	03/24/23 16:18	1
Magnesium	<0.500		0.500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Manganese	<0.0100		0.0100		mg/L		03/24/23 09:00	03/24/23 16:18	1
Molybdenum	<0.00200		0.00200		mg/L		03/24/23 09:00	03/24/23 16:18	1
Potassium	<0.500		0.500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Selenium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Silver	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 16:18	1
Sodium	<1.00		1.00		mg/L		03/24/23 09:00	03/24/23 16:18	1
Thallium	<0.00100		0.00100		mg/L		03/24/23 09:00	03/24/23 16:18	1
Vanadium	<0.00500		0.00500		mg/L		03/24/23 09:00	03/24/23 16:18	1
Zinc	<0.0200		0.0200		mg/L		03/24/23 09:00	03/24/23 16:18	1

Lab Sample ID: MB 310-382107/1-A
Matrix: Water
Analysis Batch: 382340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 382107

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.00500		0.00500		mg/L		03/24/23 09:00	03/27/23 13:09	1

Lab Sample ID: LCS 310-382107/2-A
Matrix: Water
Analysis Batch: 382249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 382107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2116		mg/L		106	80 - 120
Arsenic	0.200	0.1973		mg/L		99	80 - 120
Antimony	0.200	0.1997		mg/L		100	80 - 120
Barium	0.100	0.09968		mg/L		100	80 - 120
Beryllium	0.100	0.1008		mg/L		101	80 - 120
Boron	0.200	0.1891		mg/L		95	80 - 120
Cadmium	0.100	0.09794		mg/L		98	80 - 120
Calcium	2.00	1.997		mg/L		100	80 - 120
Chromium	0.100	0.09688		mg/L		97	80 - 120
Cobalt	0.100	0.09654		mg/L		97	80 - 120
Copper	0.200	0.2163		mg/L		108	80 - 120
Lead	0.200	0.1989		mg/L		99	80 - 120
Lithium	0.200	0.2016		mg/L		101	80 - 120

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

Lab Sample ID: LCS 310-382107/2-A
Matrix: Water
Analysis Batch: 382249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 382107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	2.00	2.088		mg/L		104	80 - 120
Manganese	0.100	0.09513		mg/L		95	80 - 120
Molybdenum	0.200	0.1934		mg/L		97	80 - 120
Potassium	2.00	2.112		mg/L		106	80 - 120
Selenium	0.400	0.3967		mg/L		99	80 - 120
Silver	0.100	0.09514		mg/L		95	80 - 120
Sodium	2.00	2.321		mg/L		116	80 - 120
Thallium	0.200	0.1691		mg/L		85	80 - 120
Vanadium	0.100	0.09874		mg/L		99	80 - 120
Zinc	0.200	0.1924		mg/L		96	80 - 120

Lab Sample ID: LCS 310-382107/2-A
Matrix: Water
Analysis Batch: 382340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 382107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	0.200	0.2106		mg/L		105	80 - 120

Lab Sample ID: 310-251732-5 DU
Matrix: Water
Analysis Batch: 382374

Client Sample ID: MW-18
Prep Type: Total/NA
Prep Batch: 382107

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	<0.500		<0.500		mg/L		NC	20
Arsenic	<0.0200		<0.0200		mg/L		NC	20
Antimony	<0.0200		<0.0200		mg/L		NC	20
Barium	<0.0200		<0.0200		mg/L		NC	20
Beryllium	<0.0100		<0.0100		mg/L		NC	20
Boron	<1.00		<1.00		mg/L		NC	20
Cadmium	<0.00100		<0.00100		mg/L		NC	20
Calcium	<5.00		<5.00		mg/L		NC	20
Chromium	<0.0500		<0.0500		mg/L		NC	20
Cobalt	<0.00500		<0.00500		mg/L		NC	20
Copper	<0.0500		<0.0500		mg/L		NC	20
Lead	<0.00500		<0.00500		mg/L		NC	20
Lithium	0.685		0.6477		mg/L		6	20
Magnesium	<5.00		<5.00		mg/L		NC	20
Manganese	<0.100		<0.100		mg/L		NC	20
Molybdenum	0.222		0.2090		mg/L		6	20
Nickel	<0.0500		<0.0500		mg/L		NC	20
Selenium	<0.0500		<0.0500		mg/L		NC	20
Silver	<0.0100		<0.0100		mg/L		NC	20
Sodium	442		416.7		mg/L		6	20
Thallium	<0.0100		<0.0100		mg/L		NC	20
Vanadium	<0.0500		<0.0500		mg/L		NC	20
Zinc	<0.200		<0.200		mg/L		NC	20

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

Lab Sample ID: 310-251732-5 DU
Matrix: Water
Analysis Batch: 382374

Client Sample ID: MW-18
Prep Type: Total/NA
Prep Batch: 382107

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Potassium	6970			8016		mg/L				14	20

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-381934/1-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 381934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/22/23 12:35	03/22/23 22:25	1

Lab Sample ID: LCS 310-381934/2-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 381934

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	0.9716		mg/L		97	90 - 110		

Lab Sample ID: 310-251732-7 MS
Matrix: Water
Analysis Batch: 381991

Client Sample ID: MW-16L
Prep Type: Total/NA
Prep Batch: 381934

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P	<0.100		1.00	1.026		mg/L		102	90 - 110		

Lab Sample ID: 310-251732-7 MSD
Matrix: Water
Analysis Batch: 381991

Client Sample ID: MW-16L
Prep Type: Total/NA
Prep Batch: 381934

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	0.9782		mg/L		98	90 - 110	5	13

Lab Sample ID: MB 310-381942/1-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 381942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/22/23 13:19	03/22/23 22:37	1

Lab Sample ID: LCS 310-381942/2-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 381942

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	0.9749		mg/L		97	90 - 110		

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: MB 310-381945/1-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 381945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 22:49	1

Lab Sample ID: LCS 310-381945/2-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 381945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	1.006		mg/L		100	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-382400/2
Matrix: Water
Analysis Batch: 382400

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.00		5.00		mg/L			03/27/23 15:38	1
Bicarbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/27/23 15:38	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/27/23 15:38	1

Lab Sample ID: LCS 310-382400/3
Matrix: Water
Analysis Batch: 382400

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	1000	1044		mg/L		104	90 - 110

Lab Sample ID: 310-251732-1 MS
Matrix: Water
Analysis Batch: 382400

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	417		100	420.9	4	mg/L		4	71 - 130

Lab Sample ID: 310-251732-1 MSD
Matrix: Water
Analysis Batch: 382400

Client Sample ID: MW-1B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	417		100	415.9	4	mg/L		-1	71 - 130	1	10

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-381964/1
Matrix: Water
Analysis Batch: 381964

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			03/22/23 15:25	1

Lab Sample ID: LCS 310-381964/2
Matrix: Water
Analysis Batch: 381964

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	944.0		mg/L		94	90 - 110

HPLC/IC

Analysis Batch: 381951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	9056A	
310-251732-1	MW-1B	Total/NA	Water	9056A	
310-251732-2	MW-1A	Total/NA	Water	9056A	
310-251732-3	MW-5	Total/NA	Water	9056A	
310-251732-3	MW-5	Total/NA	Water	9056A	
310-251732-3	MW-5	Total/NA	Water	9056A	
310-251732-4	MW-16	Total/NA	Water	9056A	
310-251732-4	MW-16	Total/NA	Water	9056A	
310-251732-5	MW-18	Total/NA	Water	9056A	
310-251732-5	MW-18	Total/NA	Water	9056A	
310-251732-6	MW-3L	Total/NA	Water	9056A	
310-251732-7	MW-16L	Total/NA	Water	9056A	
310-251732-8	MW-21	Total/NA	Water	9056A	
MB 310-381951/3	Method Blank	Total/NA	Water	9056A	
LCS 310-381951/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 772176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	300.1B-1997 R1.	
310-251732-2	MW-1A	Total/NA	Water	300.1B-1997 R1.	
310-251732-3	MW-5	Total/NA	Water	300.1B-1997 R1.	
310-251732-4	MW-16	Total/NA	Water	300.1B-1997 R1.	
310-251732-6	MW-3L	Total/NA	Water	300.1B-1997 R1.	
310-251732-7	MW-16L	Total/NA	Water	300.1B-1997 R1.	
310-251732-8	MW-21	Total/NA	Water	300.1B-1997 R1.	
MB 680-772176/7	Method Blank	Total/NA	Water	300.1B-1997 R1.	
LCS 680-772176/8	Lab Control Sample	Total/NA	Water	300.1B-1997 R1.	
LCSD 680-772176/9	Lab Control Sample Dup	Total/NA	Water	300.1B-1997 R1.	
310-251732-1 MS	MW-1B	Total/NA	Water	300.1B-1997 R1.	
310-251732-1 MSD	MW-1B	Total/NA	Water	300.1B-1997 R1.	

Analysis Batch: 772177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-5	MW-18	Total/NA	Water	300.1B-1997 R1.	
310-251732-7	MW-16L	Total/NA	Water	300.1B-1997 R1.	
MB 680-772177/38	Method Blank	Total/NA	Water	300.1B-1997 R1.	
LCS 680-772177/40	Lab Control Sample	Total/NA	Water	300.1B-1997 R1.	
LCSD 680-772177/41	Lab Control Sample Dup	Total/NA	Water	300.1B-1997 R1.	

Metals

Prep Batch: 382107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	3005A	
310-251732-2	MW-1A	Total/NA	Water	3005A	
310-251732-3	MW-5	Total/NA	Water	3005A	
310-251732-4	MW-16	Total/NA	Water	3005A	
310-251732-5	MW-18	Total/NA	Water	3005A	
310-251732-6	MW-3L	Total/NA	Water	3005A	
310-251732-7	MW-16L	Total/NA	Water	3005A	
310-251732-8	MW-21	Total/NA	Water	3005A	
MB 310-382107/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-382107/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-251732-5 DU	MW-18	Total/NA	Water	3005A	

Analysis Batch: 382249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	6020B	382107
310-251732-2	MW-1A	Total/NA	Water	6020B	382107
310-251732-3	MW-5	Total/NA	Water	6020B	382107
310-251732-4	MW-16	Total/NA	Water	6020B	382107
310-251732-6	MW-3L	Total/NA	Water	6020B	382107
310-251732-7	MW-16L	Total/NA	Water	6020B	382107
310-251732-8	MW-21	Total/NA	Water	6020B	382107
MB 310-382107/1-A	Method Blank	Total/NA	Water	6020B	382107
LCS 310-382107/2-A	Lab Control Sample	Total/NA	Water	6020B	382107

Analysis Batch: 382340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-382107/1-A	Method Blank	Total/NA	Water	6020B	382107
LCS 310-382107/2-A	Lab Control Sample	Total/NA	Water	6020B	382107

Analysis Batch: 382374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	6020B	382107
310-251732-2	MW-1A	Total/NA	Water	6020B	382107
310-251732-3	MW-5	Total/NA	Water	6020B	382107
310-251732-4	MW-16	Total/NA	Water	6020B	382107
310-251732-5	MW-18	Total/NA	Water	6020B	382107
310-251732-5	MW-18	Total/NA	Water	6020B	382107
310-251732-6	MW-3L	Total/NA	Water	6020B	382107
310-251732-7	MW-16L	Total/NA	Water	6020B	382107
310-251732-8	MW-21	Total/NA	Water	6020B	382107
310-251732-5 DU	MW-18	Total/NA	Water	6020B	382107
310-251732-5 DU	MW-18	Total/NA	Water	6020B	382107

General Chemistry

Prep Batch: 381934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-6	MW-3L	Total/NA	Water	365.1	
310-251732-7	MW-16L	Total/NA	Water	365.1	
MB 310-381934/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-381934/2-A	Lab Control Sample	Total/NA	Water	365.1	

General Chemistry (Continued)

Prep Batch: 381934 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-7 MS	MW-16L	Total/NA	Water	365.1	
310-251732-7 MSD	MW-16L	Total/NA	Water	365.1	

Prep Batch: 381942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	365.1	
310-251732-2	MW-1A	Total/NA	Water	365.1	
MB 310-381942/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-381942/2-A	Lab Control Sample	Total/NA	Water	365.1	

Prep Batch: 381945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-3	MW-5	Total/NA	Water	365.1	
310-251732-4	MW-16	Total/NA	Water	365.1	
310-251732-5	MW-18	Total/NA	Water	365.1	
310-251732-8	MW-21	Total/NA	Water	365.1	
MB 310-381945/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-381945/2-A	Lab Control Sample	Total/NA	Water	365.1	

Analysis Batch: 381964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	SM 2540C	
310-251732-2	MW-1A	Total/NA	Water	SM 2540C	
310-251732-3	MW-5	Total/NA	Water	SM 2540C	
310-251732-4	MW-16	Total/NA	Water	SM 2540C	
310-251732-5	MW-18	Total/NA	Water	SM 2540C	
310-251732-6	MW-3L	Total/NA	Water	SM 2540C	
310-251732-7	MW-16L	Total/NA	Water	SM 2540C	
310-251732-8	MW-21	Total/NA	Water	SM 2540C	
MB 310-381964/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-381964/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 381991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	365.1	381942
310-251732-2	MW-1A	Total/NA	Water	365.1	381942
310-251732-3	MW-5	Total/NA	Water	365.1	381945
310-251732-4	MW-16	Total/NA	Water	365.1	381945
310-251732-5	MW-18	Total/NA	Water	365.1	381945
310-251732-6	MW-3L	Total/NA	Water	365.1	381934
310-251732-7	MW-16L	Total/NA	Water	365.1	381934
310-251732-8	MW-21	Total/NA	Water	365.1	381945
MB 310-381934/1-A	Method Blank	Total/NA	Water	365.1	381934
MB 310-381942/1-A	Method Blank	Total/NA	Water	365.1	381942
MB 310-381945/1-A	Method Blank	Total/NA	Water	365.1	381945
LCS 310-381934/2-A	Lab Control Sample	Total/NA	Water	365.1	381934
LCS 310-381942/2-A	Lab Control Sample	Total/NA	Water	365.1	381942
LCS 310-381945/2-A	Lab Control Sample	Total/NA	Water	365.1	381945
310-251732-7 MS	MW-16L	Total/NA	Water	365.1	381934
310-251732-7 MSD	MW-16L	Total/NA	Water	365.1	381934

QC Association Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

General Chemistry

Analysis Batch: 382400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251732-1	MW-1B	Total/NA	Water	SM 2320B	
310-251732-2	MW-1A	Total/NA	Water	SM 2320B	
310-251732-3	MW-5	Total/NA	Water	SM 2320B	
310-251732-4	MW-16	Total/NA	Water	SM 2320B	
310-251732-5	MW-18	Total/NA	Water	SM 2320B	
310-251732-6	MW-3L	Total/NA	Water	SM 2320B	
310-251732-7	MW-16L	Total/NA	Water	SM 2320B	
310-251732-8	MW-21	Total/NA	Water	SM 2320B	
MB 310-382400/2	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-382400/3	Lab Control Sample	Total/NA	Water	SM 2320B	
310-251732-1 MS	MW-1B	Total/NA	Water	SM 2320B	
310-251732-1 MSD	MW-1B	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-1B

Date Collected: 03/20/23 12:22
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/07/23 22:15
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 14:01
Total/NA	Analysis	9056A		10	381951	QTZ5	EET CF	03/22/23 09:31
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382249	A6US	EET CF	03/24/23 20:42
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382374	A6US	EET CF	03/27/23 13:49
Total/NA	Prep	365.1			381942	MAQ3	EET CF	03/22/23 13:19
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:45
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 15:56
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Client Sample ID: MW-1A

Date Collected: 03/20/23 12:15
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/07/23 23:54
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 14:16
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382249	A6US	EET CF	03/24/23 20:45
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382374	A6US	EET CF	03/27/23 13:52
Total/NA	Prep	365.1			381942	MAQ3	EET CF	03/22/23 13:19
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:45
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 16:22
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Client Sample ID: MW-5

Date Collected: 03/20/23 15:30
Date Received: 03/21/23 08:50

Lab Sample ID: 310-251732-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 00:27
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 14:30
Total/NA	Analysis	9056A		10	381951	QTZ5	EET CF	03/22/23 09:45
Total/NA	Analysis	9056A		20	381951	QTZ5	EET CF	03/22/23 11:49
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382249	A6US	EET CF	03/24/23 20:48
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		10	382374	A6US	EET CF	03/27/23 13:55
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 23:00

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-5

Lab Sample ID: 310-251732-3

Date Collected: 03/20/23 15:30

Matrix: Water

Date Received: 03/21/23 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 16:31
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Client Sample ID: MW-16

Lab Sample ID: 310-251732-4

Date Collected: 03/20/23 14:10

Matrix: Water

Date Received: 03/21/23 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 01:00
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 14:45
Total/NA	Analysis	9056A		10	381951	QTZ5	EET CF	03/22/23 10:00
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382249	A6US	EET CF	03/24/23 20:51
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		10	382374	A6US	EET CF	03/27/23 13:58
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 23:00
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 16:39
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Client Sample ID: MW-18

Lab Sample ID: 310-251732-5

Date Collected: 03/20/23 13:12

Matrix: Water

Date Received: 03/21/23 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		25	772177	KMB	EET SAV	04/08/23 16:59
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 15:00
Total/NA	Analysis	9056A		100	381951	QTZ5	EET CF	03/22/23 12:03
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		10	382374	A6US	EET CF	03/27/23 14:01
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		100	382374	A6US	EET CF	03/27/23 15:38
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:59
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 16:47
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Client Sample ID: MW-3L

Lab Sample ID: 310-251732-6

Date Collected: 03/20/23 15:05

Matrix: Water

Date Received: 03/21/23 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 02:05
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 15:14

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Client Sample ID: MW-3L

Lab Sample ID: 310-251732-6

Date Collected: 03/20/23 15:05

Matrix: Water

Date Received: 03/21/23 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382249	A6US	EET CF	03/24/23 21:20
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382374	A6US	EET CF	03/27/23 14:07
Total/NA	Prep	365.1			381934	MAQ3	EET CF	03/22/23 12:35
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:36
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 17:08
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Client Sample ID: MW-16L

Lab Sample ID: 310-251732-7

Date Collected: 03/20/23 14:25

Matrix: Water

Date Received: 03/21/23 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 02:38
Total/NA	Analysis	300.1B-1997 R1.		5	772177	KMB	EET SAV	04/08/23 17:32
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 15:29
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382249	A6US	EET CF	03/24/23 21:23
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382374	A6US	EET CF	03/27/23 14:10
Total/NA	Prep	365.1			381934	MAQ3	EET CF	03/22/23 12:35
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:26
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 17:27
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Client Sample ID: MW-21

Lab Sample ID: 310-251732-8

Date Collected: 03/20/23 13:40

Matrix: Water

Date Received: 03/21/23 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 04:50
Total/NA	Analysis	9056A		1	381951	QTZ5	EET CF	03/21/23 15:43
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382249	A6US	EET CF	03/24/23 21:26
Total/NA	Prep	3005A			382107	DHM5	EET CF	03/24/23 09:00
Total/NA	Analysis	6020B		1	382374	A6US	EET CF	03/27/23 14:33
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:57
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 17:35
Total/NA	Analysis	SM 2540C		1	381964	ENB7	EET CF	03/22/23 15:25

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Laboratory References:

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

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-251732-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	353	07-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.1B-1997 R1.		Water	Bromate

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251732-1

Method	Method Description	Protocol	Laboratory
300.1B-1997 R1.	Disinfection By-Products, (IC)	EPA	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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 SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

eurofins | Environment Testing America

310-251732 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE IL | Project:

Receipt Information

Date/Time Received: DATE 3/21/22 | TIME 0850 | Received By: ST

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 2

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: 2 | Correction Factor (°C): +0.2

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

Uncorrected Temp (°C): 0.0 | Corrected Temp (°C): 0.2

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

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone

City/State: CITY | STATE IL | Project:

Receipt Information

Date/Time Received: DATE 3/21/22 | TIME 0850 | Received By: ST

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 2

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): +0.2

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): 0.3

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

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: Megan Ostrand	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-79151-22246.2
Client Contact: Krista Brodersen	Phone: 309-581-5095	E-Mail: Conner.Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page:
Company: Blackstone Environmental Inc	PWSID:			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested:			
City: Moline	TAT Requested (days): 10 days			
State, Zip: IL, 61265	Compliance Project: Δ Yes Δ No			
Phone: 309-581-5095	PO #: Purchase Order not required 3433			
Email: kbrodersen@blackstone-env.com	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
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	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)	2320B- Bicarbonate and carbonate Alkalinity	2540C_Calcd TDS	9056A_ORGFM_28D- Chloride, Fluoride, and Sulfate	9056A_ORGFM_48H- Nitrate and Nitrite	365.1 - Phosphorus, Total	6020A - Client List Metals	Bromate (subcontract)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	N	D					
MW-1B	3.20.23	1222	G	Water	N		X	X	X	X	X	X	X		
MW-1A		1215	G	Water			X	X	X	X	X	X	X		
MW-5		1530	G	Water			X	X	X	X	X	X	X		
MW-16		1410	G	Water			X	X	X	X	X	X	X		
MW-18		1312	G	Water			X	X	X	X	X	X	X		
MW-3L		1505	G	Water			X	X	X	X	X	X	X		
MW-16L		1425	G	Water			X	X	X	X	X	X	X		
MW-31		1340	G	Water			X	X	X	X	X	X	X		
			C	Water											
				Water											

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Megan Ostrand	3.20.23 1615	Blackstone	CT	3/21/23 0850	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

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

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s)	COC No: 310-59468 1
Client Contact: Shipping/Receiving	Phone	E Mail: Conner Calhoun@et.eurofinsus com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast		Accreditations Required (See note): State - Iowa		Job #: 310-251732-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 4/3/2023			
City: Savannah	TAT Requested (days):			
State Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email	WO #:			
Project Name: Buffalo, IA	Project #: 31010114			
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)	300.1B_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code						
MW-1B (310-251732-1)	3/20/23	12 22 Central		Water			X	1	
MW-1A (310-251732-2)	3/20/23	12 15 Central		Water			X	1	
MW-5 (310-251732-3)	3/20/23	15 30 Central		Water			X	1	
MW-16 (310-251732-4)	3/20/23	14 10 Central		Water			X	1	
MW-18 (310-251732-5)	3/20/23	13 12 Central		Water			X	1	
MW-3L (310-251732-6)	3/20/23	15 05 Central		Water			X	1	
MW-16L (310-251732-7)	3/20/23	14 25 Central		Water			X	1	
MW-21 (310-251732-8)	3/20/23	13 40 Central		Water			X	1	

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
1	[signature]	3/21/23 1340		[signature]	03/22/23 10:30	
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.1 3.1

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-251732-1

Login Number: 251732
List Number: 1
Creator: Tucker, Sarah L

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: Blackstone Environmental, Inc

Job Number: 310-251732-1

Login Number: 251732
List Number: 2
Creator: Padayao, Abigail

List Source: Eurofins Savannah
List Creation: 03/22/23 01:42 PM

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.	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.	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?	N/A	
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.	N/A	
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.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Brodersen
Blackstone Environmental, Inc
1465 41st Street
Suite 13
Moline, Illinois 61265

Generated 4/11/2023 8:14:50 AM

JOB DESCRIPTION

Buffalo, IA

JOB NUMBER

310-251824-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

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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4/11/2023 8:14:50 AM

Authorized for release by
Conner Calhoun, Project Management Assistant I
Conner.Calhoun@et.eurofinsus.com
(319)277-2401

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Job ID: 310-251824-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-251824-1

Receipt
The samples were received on 3/22/2023 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4°C, 0.6°C and 1.6°C

HPLC/IC
Method 300.1B_28D: Surrogate recovery for the following sample was outside control limits: MW-13 (310-251824-5). Evidence of matrix interference is present; therefore, re-analysis was not performed.

Method 300.1B_28D: The following samples were diluted due to the nature of the sample matrix: MW-4 (310-251824-2), MW-11 (310-251824-3), MW-4L (310-251824-8), (310-251824-A-8 MS) and (310-251824-A-8 MSD). Elevated reporting limits (RLs) are provided.

Method 300.1B_28D: Surrogate recovery for the following samples were outside control limits: MW-19 (310-251824-10), MW-20 (310-251824-11) and Duplicate (310-251824-12). Evidence of matrix interference is present; therefore, re-analysis was not performed.

Method 300.1B_28D: LCS surrogate fails slightly outside control limits at 89%. LCSD surrogate passes.(LCS 680-772177/40)

Method 300.1B_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-772176 were outside control limits for bromate, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Metals
Method 6020B: 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-4L (310-251824-8). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: MW-4 (310-251824-2) and MW-4L (310-251824-8).

Method 6020B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: MW-11 (310-251824-3).

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.

Job ID: 310-251824-2

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-251824-2

Receipt
The samples were received on 3/22/2023 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4°C, 0.6°C and 1.6°C

Job ID: 310-251824-2 (Continued)

Laboratory: Eurofins Cedar Falls (Continued)

HPLC/IC

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

Sample Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-251824-1	MW-2A	Water	03/21/23 09:40	03/22/23 10:20
310-251824-2	MW-4	Water	03/21/23 13:15	03/22/23 10:20
310-251824-3	MW-11	Water	03/21/23 12:50	03/22/23 10:20
310-251824-4	MW-12	Water	03/21/23 12:15	03/22/23 10:20
310-251824-5	MW-13	Water	03/21/23 11:10	03/22/23 10:20
310-251824-6	MW-14	Water	03/21/23 10:00	03/22/23 10:20
310-251824-7	MW-15	Water	03/21/23 08:35	03/22/23 10:20
310-251824-8	MW-4L	Water	03/21/23 12:33	03/22/23 10:20
310-251824-9	MW-7	Water	03/21/23 09:15	03/22/23 10:20
310-251824-10	MW-19	Water	03/21/23 11:35	03/22/23 10:20
310-251824-11	MW-20	Water	03/21/23 08:15	03/22/23 10:20
310-251824-12	Duplicate	Water	03/21/23 11:37	03/22/23 10:20

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-2A — Lab Sample ID: 310-251824-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.366		0.100		mg/L	1		9056A	Total/NA
Sulfate	230		10.0		mg/L	10		9056A	Total/NA
Barium	0.0587		0.00200		mg/L	1		6020B	Total/NA
Boron	0.113		0.100		mg/L	1		6020B	Total/NA
Calcium	149		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000910		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0136		0.0100		mg/L	1		6020B	Total/NA
Magnesium	49.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0934		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00535		0.00500		mg/L	1		6020B	Total/NA
Potassium	4.82		0.500		mg/L	1		6020B	Total/NA
Sodium	25.9		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	358	F1	5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	358		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	730		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 310-251824-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1190		50.0		mg/L	50		9056A	Total/NA
Fluoride	1.95		0.100		mg/L	1		9056A	Total/NA
Sulfate	2010		50.0		mg/L	50		9056A	Total/NA
Aluminum	0.0630		0.0500		mg/L	1		6020B	Total/NA
Arsenic	0.0429		0.00200		mg/L	1		6020B	Total/NA
Barium	0.00723		0.00200		mg/L	1		6020B	Total/NA
Boron	0.212		0.100		mg/L	1		6020B	Total/NA
Calcium	2.59		0.500		mg/L	1		6020B	Total/NA
Lithium	0.371		0.0100		mg/L	1		6020B	Total/NA
Manganese	0.0177		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.109		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00905		0.00500		mg/L	1		6020B	Total/NA
Potassium	3420		50.0		mg/L	100		6020B	Total/NA
Sodium	228		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.280		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1640		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1630		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8080		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 310-251824-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1420		50.0		mg/L	50		9056A	Total/NA
Fluoride	2.36		0.100		mg/L	1		9056A	Total/NA
Sulfate	2540		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.0246		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0132		0.00200		mg/L	1		6020B	Total/NA
Boron	0.198		0.100		mg/L	1		6020B	Total/NA
Calcium	1.43		0.500		mg/L	1		6020B	Total/NA
Lithium	0.453		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.107		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00853		0.00500		mg/L	1		6020B	Total/NA
Potassium	4040		50.0		mg/L	100		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-11 (Continued) — Lab Sample ID: 310-251824-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	261		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.247		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1670		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	67.5		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1600		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	9440		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 310-251824-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	90.4		1.00		mg/L	1		9056A	Total/NA
Sulfate	397		10.0		mg/L	10		9056A	Total/NA
Barium	0.0688		0.00200		mg/L	1		6020B	Total/NA
Boron	0.638		0.100		mg/L	1		6020B	Total/NA
Calcium	108		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00209		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0547		0.0100		mg/L	1		6020B	Total/NA
Magnesium	57.0		0.500		mg/L	1		6020B	Total/NA
Manganese	1.36		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00889		0.00500		mg/L	1		6020B	Total/NA
Potassium	13.7		0.500		mg/L	1		6020B	Total/NA
Sodium	45.8		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	365		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	365		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	720		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 310-251824-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromate	11.7		5.00		ug/L	1		300.1B-1997 R1.	Total/NA
Chloride	172		10.0		mg/L	10		9056A	Total/NA
Nitrate as N	0.144		0.100		mg/L	1		9056A	Total/NA
Fluoride	0.472		0.100		mg/L	1		9056A	Total/NA
Sulfate	61.3		1.00		mg/L	1		9056A	Total/NA
Aluminum	0.0565		0.0500		mg/L	1		6020B	Total/NA
Barium	0.0784		0.00200		mg/L	1		6020B	Total/NA
Boron	0.362		0.100		mg/L	1		6020B	Total/NA
Calcium	80.3		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00112		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0315		0.0100		mg/L	1		6020B	Total/NA
Magnesium	35.8		0.500		mg/L	1		6020B	Total/NA
Manganese	0.314		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00567		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00571		0.00500		mg/L	1		6020B	Total/NA
Potassium	5.71		0.500		mg/L	1		6020B	Total/NA
Sodium	103		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	365		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	365		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	640		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-14 — Lab Sample ID: 310-251824-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	587		20.0		mg/L	20		9056A	Total/NA
Nitrate as N	1.62		0.100		mg/L	1		9056A	Total/NA
Fluoride	0.881		0.100		mg/L	1		9056A	Total/NA
Sulfate	3010		100		mg/L	100		9056A	Total/NA
Barium	0.0387		0.00200		mg/L	1		6020B	Total/NA
Boron	0.201		0.100		mg/L	1		6020B	Total/NA
Calcium	205		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00319		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.177		0.0100		mg/L	1		6020B	Total/NA
Magnesium	125		2.00		mg/L	4		6020B	Total/NA
Manganese	0.340		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0789		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00598		0.00500		mg/L	1		6020B	Total/NA
Potassium	1870		50.0		mg/L	100		6020B	Total/NA
Sodium	308		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	268		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	268		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6290		250		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-251824-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	24.9		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.876		0.100		mg/L	1		9056A	Total/NA
Sulfate	141		10.0		mg/L	10		9056A	Total/NA
Barium	0.0552		0.00200		mg/L	1		6020B	Total/NA
Boron	0.767		0.100		mg/L	1		6020B	Total/NA
Calcium	88.7		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.000715		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0490		0.0100		mg/L	1		6020B	Total/NA
Magnesium	49.5		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0912		0.0100		mg/L	1		6020B	Total/NA
Potassium	9.55		0.500		mg/L	1		6020B	Total/NA
Sodium	32.4		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	409		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	409		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	502		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4L — Lab Sample ID: 310-251824-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1650		50.0		mg/L	50		9056A	Total/NA
Nitrate as N	0.258		0.100		mg/L	1		9056A	Total/NA
Fluoride	3.21		0.100		mg/L	1		9056A	Total/NA
Sulfate	3220		50.0		mg/L	50		9056A	Total/NA
Arsenic	0.00898		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0130		0.00200		mg/L	1		6020B	Total/NA
Boron	0.239		0.100		mg/L	1		6020B	Total/NA
Calcium	1.21		0.500		mg/L	1		6020B	Total/NA
Lithium	0.464		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.124		0.00200		mg/L	1		6020B	Total/NA
Nickel	0.00661		0.00500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-4L (Continued) — Lab Sample ID: 310-251824-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	4490		50.0		mg/L	100		6020B	Total/NA
Sodium	305		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.199		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	1690		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	115		5.00		mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	1570		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	7300		2500		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 310-251824-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	3.86		0.100		mg/L	1		9056A	Total/NA
Fluoride	0.152		0.100		mg/L	1		9056A	Total/NA
Sulfate	108		10.0		mg/L	10		9056A	Total/NA
Antimony	0.00275		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0936		0.00200		mg/L	1		6020B	Total/NA
Boron	0.101		0.100		mg/L	1		6020B	Total/NA
Calcium	53.1		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0460		0.0100		mg/L	1		6020B	Total/NA
Magnesium	14.7		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0249		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00329		0.00200		mg/L	1		6020B	Total/NA
Potassium	12.3		0.500		mg/L	1		6020B	Total/NA
Sodium	20.1		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	349		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	349		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	308		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 310-251824-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.0		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.357		0.100		mg/L	1		9056A	Total/NA
Sulfate	57.4		1.00		mg/L	1		9056A	Total/NA
Barium	0.111		0.00200		mg/L	1		6020B	Total/NA
Boron	0.190		0.100		mg/L	1		6020B	Total/NA
Calcium	87.2		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00291		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000544		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0238		0.0100		mg/L	1		6020B	Total/NA
Magnesium	34.7		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0500		0.0100		mg/L	1		6020B	Total/NA
Potassium	4.54		0.500		mg/L	1		6020B	Total/NA
Sodium	21.4		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.160		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	412		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	412		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	404		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-20 — Lab Sample ID: 310-251824-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromate	49.9		5.00		ug/L	1		300.1B-1997 R1.	Total/NA
Chloride	5.58		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.388		0.100		mg/L	1		9056A	Total/NA
Sulfate	37.2		1.00		mg/L	1		9056A	Total/NA
Aluminum	0.0527		0.0500		mg/L	1		6020B	Total/NA
Barium	0.0580		0.00200		mg/L	1		6020B	Total/NA
Boron	0.301		0.100		mg/L	1		6020B	Total/NA
Calcium	68.5		0.500		mg/L	1		6020B	Total/NA
Lead	0.000706		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0256		0.0100		mg/L	1		6020B	Total/NA
Magnesium	31.8		0.500		mg/L	1		6020B	Total/NA
Potassium	5.38		0.500		mg/L	1		6020B	Total/NA
Sodium	15.5		1.00		mg/L	1		6020B	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	365		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	365		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	324		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Duplicate — Lab Sample ID: 310-251824-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.1		1.00		mg/L	1		9056A	Total/NA
Fluoride	0.379		0.100		mg/L	1		9056A	Total/NA
Sulfate	57.4		1.00		mg/L	1		9056A	Total/NA
Aluminum	0.125		0.0500		mg/L	1		6020B	Total/NA
Barium	0.107		0.00200		mg/L	1		6020B	Total/NA
Boron	0.219		0.100		mg/L	1		6020B	Total/NA
Calcium	85.0		0.500		mg/L	1		6020B	Total/NA
Cobalt	0.00296		0.000500		mg/L	1		6020B	Total/NA
Copper	0.00628		0.00500		mg/L	1		6020B	Total/NA
Lead	0.000637		0.000500		mg/L	1		6020B	Total/NA
Lithium	0.0238		0.0100		mg/L	1		6020B	Total/NA
Magnesium	34.2		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0601		0.0100		mg/L	1		6020B	Total/NA
Nickel	0.00522		0.00500		mg/L	1		6020B	Total/NA
Potassium	4.27		0.500		mg/L	1		6020B	Total/NA
Sodium	21.3		1.00		mg/L	1		6020B	Total/NA
Total Phosphorus as P	0.214		0.100		mg/L	1		365.1	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	411		5.00		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	411		5.00		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	400		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-2A

Date Collected: 03/21/23 09:40
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-1

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*97*		*90 - 115*		*04/08/23 05:23*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			03/22/23 12:59	1
Nitrate as N	**0.366**		0.100		mg/L			03/22/23 12:59	1
Fluoride	<0.100		0.100		mg/L			03/22/23 12:59	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 12:59	1
Sulfate	**230**		10.0		mg/L			03/24/23 19:59	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 18:54	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 18:54	1
Barium	**0.0587**		0.00200		mg/L		03/27/23 08:55	03/27/23 18:54	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 18:54	1
Boron	**0.113**		0.100		mg/L		03/27/23 08:55	03/27/23 18:54	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 18:54	1
Calcium	**149**		0.500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Cobalt	**0.000910**		0.000500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Lithium	**0.0136**		0.0100		mg/L		03/27/23 08:55	03/27/23 18:54	1
Magnesium	**49.3**		0.500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Manganese	**0.0934**		0.0100		mg/L		03/27/23 08:55	03/27/23 18:54	1
Molybdenum	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 18:54	1
Nickel	**0.00535**		0.00500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Potassium	**4.82**		0.500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 18:54	1
Sodium	**25.9**		1.00		mg/L		03/27/23 08:55	03/27/23 18:54	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 18:54	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:54	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 18:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 22:59	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**358**	**F1**	5.00		mg/L			03/27/23 19:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**358**		5.00		mg/L			03/27/23 19:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 19:47	1
Total Dissolved Solids (SM 2540C)	**730**		50.0		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-4

Date Collected: 03/21/23 13:15
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-2

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<125		125		ug/L			04/08/23 18:05	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*95*		*90 - 115*		*04/08/23 18:05*	*25*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1190**		50.0		mg/L			03/24/23 21:52	50
Nitrate as N	<0.100		0.100		mg/L			03/22/23 15:35	1
Fluoride	**1.95**		0.100		mg/L			03/22/23 15:35	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 15:35	1
Sulfate	**2010**		50.0		mg/L			03/24/23 21:52	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.0630**		0.0500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Arsenic	**0.0429**		0.00200		mg/L		03/27/23 08:55	03/27/23 18:57	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 18:57	1
Barium	**0.00723**		0.00200		mg/L		03/27/23 08:55	03/27/23 18:57	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 18:57	1
Boron	**0.212**		0.100		mg/L		03/27/23 08:55	03/27/23 18:57	1
Cadmium	<0.000400		0.000400		mg/L		03/27/23 08:55	03/28/23 12:48	4
Calcium	**2.59**		0.500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Cobalt	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Lithium	**0.371**		0.0100		mg/L		03/27/23 08:55	03/27/23 18:57	1
Magnesium	<0.500		0.500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Manganese	**0.0177**		0.0100		mg/L		03/27/23 08:55	03/27/23 18:57	1
Molybdenum	**0.109**		0.00200		mg/L		03/27/23 08:55	03/27/23 18:57	1
Nickel	**0.00905**		0.00500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Potassium	**3420**		50.0		mg/L		03/27/23 08:55	03/28/23 12:39	100
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Silver	<0.00400		0.00400		mg/L		03/27/23 08:55	03/28/23 12:48	4
Sodium	**228**		1.00		mg/L		03/27/23 08:55	03/27/23 18:57	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 18:57	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 18:57	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 18:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.280**		0.100		mg/L		03/22/23 13:19	03/22/23 22:43	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1640**		5.00		mg/L			03/27/23 20:12	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 20:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1630**		5.00		mg/L			03/27/23 20:12	1
Total Dissolved Solids (SM 2540C)	**8080**		250		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-11

Date Collected: 03/21/23 12:50
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-3

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<125		125		ug/L			04/08/23 18:38	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*94*		*90 - 115*		*04/08/23 18:38*	*25*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1420**		50.0		mg/L			03/24/23 21:38	50
Nitrate as N	<0.100		0.100		mg/L			03/22/23 15:20	1
Fluoride	**2.36**		0.100		mg/L			03/22/23 15:20	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 15:20	1
Sulfate	**2540**		50.0		mg/L			03/24/23 21:38	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Arsenic	**0.0246**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:01	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:01	1
Barium	**0.0132**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:01	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:01	1
Boron	**0.198**		0.100		mg/L		03/27/23 08:55	03/27/23 19:01	1
Cadmium	<0.000400		0.000400		mg/L		03/27/23 08:55	03/30/23 12:00	4
Calcium	**1.43**		0.500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Cobalt	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Lithium	**0.453**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:01	1
Magnesium	<0.500		0.500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Manganese	<0.0100		0.0100		mg/L		03/27/23 08:55	03/27/23 19:01	1
Molybdenum	**0.107**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:01	1
Nickel	**0.00853**		0.00500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Potassium	**4040**		50.0		mg/L		03/27/23 08:55	03/30/23 11:57	100
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Silver	<0.00400		0.00400		mg/L		03/27/23 08:55	03/30/23 12:00	4
Sodium	**261**		1.00		mg/L		03/27/23 08:55	03/27/23 19:01	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:01	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:01	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.247**		0.100		mg/L		03/22/23 13:19	03/22/23 22:43	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1670**		5.00		mg/L			03/27/23 20:41	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**67.5**		5.00		mg/L			03/27/23 20:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1600**		5.00		mg/L			03/27/23 20:41	1
Total Dissolved Solids (SM 2540C)	**9440**		250		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-12

Date Collected: 03/21/23 12:15
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-4

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00	F1	5.00		ug/L			04/08/23 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*97*		*90 - 115*		*04/08/23 07:01*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.4**		1.00		mg/L			03/22/23 14:52	1
Nitrate as N	<0.100		0.100		mg/L			03/22/23 14:52	1
Fluoride	<0.100		0.100		mg/L			03/22/23 14:52	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 14:52	1
Sulfate	**397**		10.0		mg/L			03/24/23 21:10	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:04	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:04	1
Barium	**0.0688**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:04	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:04	1
Boron	**0.638**		0.100		mg/L		03/27/23 08:55	03/27/23 19:04	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:04	1
Calcium	**108**		0.500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Cobalt	**0.00209**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Lithium	**0.0547**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:04	1
Magnesium	**57.0**		0.500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Manganese	**1.36**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:04	1
Molybdenum	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:04	1
Nickel	**0.00889**		0.00500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Potassium	**13.7**		0.500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:04	1
Sodium	**45.8**		1.00		mg/L		03/27/23 08:55	03/27/23 19:04	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:04	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:04	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 22:57	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**365**		5.00		mg/L			03/27/23 21:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**365**		5.00		mg/L			03/27/23 21:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 21:02	1
Total Dissolved Solids (SM 2540C)	**720**		50.0		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-13

Date Collected: 03/21/23 11:10
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-5

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	**11.7**		5.00		ug/L			04/08/23 08:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*79*	*S1-*	*90 - 115*		*04/08/23 08:40*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**172**		10.0		mg/L			03/24/23 20:55	10
Nitrate as N	**0.144**		0.100		mg/L			03/22/23 13:27	1
Fluoride	**0.472**		0.100		mg/L			03/22/23 13:27	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 13:27	1
Sulfate	**61.3**		1.00		mg/L			03/22/23 13:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.0565**		0.0500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:08	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:08	1
Barium	**0.0784**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:08	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:08	1
Boron	**0.362**		0.100		mg/L		03/27/23 08:55	03/27/23 19:08	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:08	1
Calcium	**80.3**		0.500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Cobalt	**0.00112**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Lithium	**0.0315**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:08	1
Magnesium	**35.8**		0.500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Manganese	**0.314**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:08	1
Molybdenum	**0.00567**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:08	1
Nickel	**0.00571**		0.00500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Potassium	**5.71**		0.500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:08	1
Sodium	**103**		1.00		mg/L		03/27/23 08:55	03/27/23 19:08	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:08	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:08	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:19	03/22/23 22:48	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**365**		5.00		mg/L			03/27/23 21:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**365**		5.00		mg/L			03/27/23 21:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 21:11	1
Total Dissolved Solids (SM 2540C)	**640**		50.0		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-14

Date Collected: 03/21/23 10:00
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-6

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<125		125		ug/L			04/08/23 19:11	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*90*		*90 - 115*		*04/08/23 19:11*	*25*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**587**		20.0		mg/L			03/24/23 20:13	20
Nitrate as N	**1.62**		0.100		mg/L			03/22/23 13:13	1
Fluoride	**0.881**		0.100		mg/L			03/22/23 13:13	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 13:13	1
Sulfate	**3010**		100		mg/L			03/27/23 10:38	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:15	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:15	1
Barium	**0.0387**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:15	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:15	1
Boron	**0.201**		0.100		mg/L		03/27/23 08:55	03/27/23 19:15	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:15	1
Calcium	**205**		0.500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Cobalt	**0.00319**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Lithium	**0.177**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:15	1
Magnesium	**125**		2.00		mg/L		03/27/23 08:55	03/28/23 12:45	4
Manganese	**0.340**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:15	1
Molybdenum	**0.0789**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:15	1
Nickel	**0.00598**		0.00500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Potassium	**1870**		50.0		mg/L		03/27/23 08:55	03/31/23 12:39	100
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:15	1
Sodium	**308**		1.00		mg/L		03/27/23 08:55	03/27/23 19:15	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:15	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:15	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 14:48	03/22/23 23:43	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**268**		5.00		mg/L			03/27/23 18:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**268**		5.00		mg/L			03/27/23 18:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 18:16	1
Total Dissolved Solids (SM 2540C)	**6290**		250		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-15

Date Collected: 03/21/23 08:35
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-7

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 09:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*101*		*90 - 115*		*04/08/23 09:46*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.9**		1.00		mg/L			03/22/23 12:31	1
Nitrate as N	<0.100		0.100		mg/L			03/22/23 12:31	1
Fluoride	**0.876**		0.100		mg/L			03/22/23 12:31	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 12:31	1
Sulfate	**141**		10.0		mg/L			03/24/23 19:31	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:18	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:18	1
Barium	**0.0552**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:18	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:18	1
Boron	**0.767**		0.100		mg/L		03/27/23 08:55	03/27/23 19:18	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:18	1
Calcium	**88.7**		0.500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Cobalt	**0.000715**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Lithium	**0.0490**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:18	1
Magnesium	**49.5**		0.500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Manganese	**0.0912**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:18	1
Molybdenum	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:18	1
Nickel	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Potassium	**9.55**		0.500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:18	1
Sodium	**32.4**		1.00		mg/L		03/27/23 08:55	03/27/23 19:18	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:18	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:18	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 22:50	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**409**		5.00		mg/L			03/27/23 18:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**409**		5.00		mg/L			03/27/23 18:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 18:23	1
Total Dissolved Solids (SM 2540C)	**502**		50.0		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-4L

Date Collected: 03/21/23 12:33
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-8

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<125		125		ug/L			04/08/23 19:44	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*94*		*90 - 115*		*04/08/23 19:44*	*25*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1650**		50.0		mg/L			03/24/23 21:24	50
Nitrate as N	**0.258**		0.100		mg/L			03/22/23 15:06	1
Fluoride	**3.21**		0.100		mg/L			03/22/23 15:06	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 15:06	1
Sulfate	**3220**		50.0		mg/L			03/24/23 21:24	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Arsenic	**0.00898**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:46	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:46	1
Barium	**0.0130**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:46	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:46	1
Boron	**0.239**		0.100		mg/L		03/27/23 08:55	03/27/23 19:46	1
Cadmium	<0.000400		0.000400		mg/L		03/27/23 08:55	03/28/23 12:51	4
Calcium	**1.21**		0.500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Cobalt	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Lithium	**0.464**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:46	1
Magnesium	<0.500		0.500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Manganese	<0.0100		0.0100		mg/L		03/27/23 08:55	03/27/23 19:46	1
Molybdenum	**0.124**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:46	1
Nickel	**0.00661**		0.00500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Potassium	**4490**		50.0		mg/L		03/27/23 08:55	03/28/23 12:42	100
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Silver	<0.00400		0.00400		mg/L		03/27/23 08:55	03/28/23 12:51	4
Sodium	**305**		1.00		mg/L		03/27/23 08:55	03/27/23 19:46	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:46	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:46	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.199**		0.100		mg/L		03/22/23 14:48	03/22/23 23:51	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**1690**		5.00		mg/L			03/27/23 18:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**115**		5.00		mg/L			03/27/23 18:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	**1570**		5.00		mg/L			03/27/23 18:32	1
Total Dissolved Solids (SM 2540C)	**7300**		2500		mg/L			03/24/23 14:34	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-7

Date Collected: 03/21/23 09:15
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-9

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 10:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*112*		*90 - 115*		*04/08/23 10:52*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			03/22/23 12:45	1
Nitrate as N	**3.86**		0.100		mg/L			03/22/23 12:45	1
Fluoride	**0.152**		0.100		mg/L			03/22/23 12:45	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 12:45	1
Sulfate	**108**		10.0		mg/L			03/24/23 19:45	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:49	1
Antimony	**0.00275**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:49	1
Barium	**0.0936**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:49	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:49	1
Boron	**0.101**		0.100		mg/L		03/27/23 08:55	03/27/23 19:49	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:49	1
Calcium	**53.1**		0.500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Cobalt	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Lithium	**0.0460**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:49	1
Magnesium	**14.7**		0.500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Manganese	**0.0249**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:49	1
Molybdenum	**0.00329**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:49	1
Nickel	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Potassium	**12.3**		0.500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:49	1
Sodium	**20.1**		1.00		mg/L		03/27/23 08:55	03/27/23 19:49	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:49	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:49	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 14:48	03/22/23 23:51	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**349**		5.00		mg/L			03/27/23 19:02	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**349**		5.00		mg/L			03/27/23 19:02	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 19:02	1
Total Dissolved Solids (SM 2540C)	**308**		50.0		mg/L			03/24/23 14:34	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-19

Date Collected: 03/21/23 11:35
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-10

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*87*	*S1-*	*90 - 115*		*04/08/23 21:23*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.0**		1.00		mg/L			03/22/23 14:24	1
Nitrate as N	<0.100		0.100		mg/L			03/22/23 14:24	1
Fluoride	**0.357**		0.100		mg/L			03/22/23 14:24	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 14:24	1
Sulfate	**57.4**		1.00		mg/L			03/22/23 14:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:52	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:52	1
Barium	**0.111**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:52	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:52	1
Boron	**0.190**		0.100		mg/L		03/27/23 08:55	03/27/23 19:52	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:52	1
Calcium	**87.2**		0.500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Cobalt	**0.00291**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Lead	**0.000544**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Lithium	**0.0238**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:52	1
Magnesium	**34.7**		0.500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Manganese	**0.0500**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:52	1
Molybdenum	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:52	1
Nickel	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Potassium	**4.54**		0.500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:52	1
Sodium	**21.4**		1.00		mg/L		03/27/23 08:55	03/27/23 19:52	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:52	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:52	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.160**		0.100		mg/L		03/22/23 14:48	03/22/23 23:51	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**412**		5.00		mg/L			03/27/23 19:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**412**		5.00		mg/L			03/27/23 19:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 19:10	1
Total Dissolved Solids (SM 2540C)	**404**		50.0		mg/L			03/24/23 14:34	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-20

Date Collected: 03/21/23 08:15
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-11

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	**49.9**		5.00		ug/L			04/08/23 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*86*	*S1-*	*90 - 115*		*04/08/23 21:56*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.58**		1.00		mg/L			03/22/23 11:49	1
Nitrate as N	<0.100		0.100		mg/L			03/22/23 11:49	1
Fluoride	**0.388**		0.100		mg/L			03/22/23 11:49	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 11:49	1
Sulfate	**37.2**		1.00		mg/L			03/22/23 11:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.0527**		0.0500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:56	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:56	1
Barium	**0.0580**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:56	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:56	1
Boron	**0.301**		0.100		mg/L		03/27/23 08:55	03/27/23 19:56	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:56	1
Calcium	**68.5**		0.500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Cobalt	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Lead	**0.000706**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Lithium	**0.0256**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:56	1
Magnesium	**31.8**		0.500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Manganese	<0.0100		0.0100		mg/L		03/27/23 08:55	03/27/23 19:56	1
Molybdenum	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:56	1
Nickel	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Potassium	**5.38**		0.500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:56	1
Sodium	**15.5**		1.00		mg/L		03/27/23 08:55	03/27/23 19:56	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:56	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:56	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	<0.100		0.100		mg/L		03/22/23 13:19	03/22/23 22:46	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**365**		5.00		mg/L			03/27/23 19:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**365**		5.00		mg/L			03/27/23 19:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 19:19	1
Total Dissolved Solids (SM 2540C)	**324**		50.0		mg/L			03/23/23 14:24	1

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: Duplicate

Date Collected: 03/21/23 11:37
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-12

Matrix: Water

Method: EPA 300.1B-1997 R1. - Disinfection By-Products, (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*83*	*S1-*	*90 - 115*		*04/08/23 22:28*	*1*

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.1**		1.00		mg/L			03/22/23 14:38	1
Nitrate as N	<0.100		0.100		mg/L			03/22/23 14:38	1
Fluoride	**0.379**		0.100		mg/L			03/22/23 14:38	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 14:38	1
Sulfate	**57.4**		1.00		mg/L			03/22/23 14:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.125**		0.0500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:59	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:59	1
Barium	**0.107**		0.00200		mg/L		03/27/23 08:55	03/27/23 19:59	1
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:59	1
Boron	**0.219**		0.100		mg/L		03/27/23 08:55	03/27/23 19:59	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 19:59	1
Calcium	**85.0**		0.500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Cobalt	**0.00296**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Copper	**0.00628**		0.00500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Lead	**0.000637**		0.000500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Lithium	**0.0238**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:59	1
Magnesium	**34.2**		0.500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Manganese	**0.0601**		0.0100		mg/L		03/27/23 08:55	03/27/23 19:59	1
Molybdenum	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 19:59	1
Nickel	**0.00522**		0.00500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Potassium	**4.27**		0.500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:59	1
Sodium	**21.3**		1.00		mg/L		03/27/23 08:55	03/27/23 19:59	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 19:59	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 19:59	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 19:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P (EPA 365.1)	**0.214**		0.100		mg/L		03/22/23 13:45	03/22/23 22:58	1
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B)	**411**		5.00		mg/L			03/27/23 21:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**411**		5.00		mg/L			03/27/23 21:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.00		5.00		mg/L			03/27/23 21:19	1
Total Dissolved Solids (SM 2540C)	**400**		50.0		mg/L			03/23/23 14:24	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.
S1-	Surrogate recovery exceeds control limits, low biased.

General Chemistry

Qualifier	Qualifier Description
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

Surrogate Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DCAA (90-115)
310-251824-1	MW-2A	97
310-251824-2	MW-4	95
310-251824-3	MW-11	94
310-251824-4	MW-12	97
310-251824-4 MS	MW-12	82 S1-
310-251824-4 MSD	MW-12	81 S1-
310-251824-5	MW-13	79 S1-
310-251824-6	MW-14	90
310-251824-7	MW-15	101
310-251824-8	MW-4L	94
310-251824-8 MS	MW-4L	92
310-251824-8 MSD	MW-4L	93
310-251824-9	MW-7	112
310-251824-10	MW-19	87 S1-
310-251824-11	MW-20	86 S1-
310-251824-12	Duplicate	83 S1-
LCS 680-772176/8	Lab Control Sample	102
LCS 680-772177/40	Lab Control Sample	89 S1-
LCSD 680-772176/9	Lab Control Sample Dup	104
LCSD 680-772177/41	Lab Control Sample Dup	94
MB 680-772176/7	Method Blank	101
MB 680-772177/38	Method Blank	94

Surrogate Legend

DCAA = Dichloroacetic acid(Surr)

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC)

Lab Sample ID: MB 680-772176/7
Matrix: Water
Analysis Batch: 772176

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/07/23 18:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*101*		*90 - 115*		*04/07/23 18:25*	*1*

Lab Sample ID: LCS 680-772176/8
Matrix: Water
Analysis Batch: 772176

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			50.0	51.04		ug/L		102	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*102*		*90 - 115*

Lab Sample ID: LCSD 680-772176/9
Matrix: Water
Analysis Batch: 772176

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			50.0	50.56		ug/L		101	85 - 115	1	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*104*		*90 - 115*

Lab Sample ID: 310-251824-4 MS
Matrix: Water
Analysis Batch: 772176

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate	<5.00	F1	50.0	<5.00	F1	ug/L		0	75 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*82*	*S1-*	*90 - 115*

Lab Sample ID: 310-251824-4 MSD
Matrix: Water
Analysis Batch: 772176

Client Sample ID: MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<5.00	F1	50.0	<5.00	F1	ug/L		0	75 - 125	NC	10

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*81*	*S1-*	*90 - 115*

Method: 300.1B-1997 R1. - Disinfection By-Products, (IC) (Continued)

Lab Sample ID: MB 680-772177/38
Matrix: Water
Analysis Batch: 772177

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromate	<5.00		5.00		ug/L			04/08/23 12:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dichloroacetic acid(Surr)	*94*		*90 - 115*		*04/08/23 12:31*	*1*

Lab Sample ID: LCS 680-772177/40
Matrix: Water
Analysis Batch: 772177

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate			50.0	46.97		ug/L		94	85 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*89*	*S1-*	*90 - 115*

Lab Sample ID: LCSD 680-772177/41
Matrix: Water
Analysis Batch: 772177

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate			50.0	47.07		ug/L		94	85 - 115	0	10

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*94*		*90 - 115*

Lab Sample ID: 310-251824-8 MS
Matrix: Water
Analysis Batch: 772177

Client Sample ID: MW-4L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Bromate	<125		1250	1174		ug/L		94	75 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*92*		*90 - 115*

Lab Sample ID: 310-251824-8 MSD
Matrix: Water
Analysis Batch: 772177

Client Sample ID: MW-4L
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bromate	<125		1250	1106		ug/L		88	75 - 125	6	10

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dichloroacetic acid(Surr)	*93*		*90 - 115*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-382196/3
Matrix: Water
Analysis Batch: 382196

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			03/22/23 11:21	1
Nitrate as N	<0.100		0.100		mg/L			03/22/23 11:21	1
Fluoride	<0.100		0.100		mg/L			03/22/23 11:21	1
Nitrite as N	<0.100		0.100		mg/L			03/22/23 11:21	1
Sulfate	<1.00		1.00		mg/L			03/22/23 11:21	1

Lab Sample ID: LCS 310-382196/4
Matrix: Water
Analysis Batch: 382196

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.738		mg/L		97	90 - 110
Nitrate as N	2.00	2.086		mg/L		104	90 - 110
Fluoride	2.00	2.144		mg/L		107	90 - 110
Nitrite as N	2.00	2.110		mg/L		105	90 - 110
Sulfate	10.0	10.22		mg/L		102	90 - 110

Lab Sample ID: 310-251824-11 MS
Matrix: Water
Analysis Batch: 382196

Client Sample ID: MW-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5.58		5.00	10.19		mg/L		92	80 - 120
Nitrate as N	<0.100		1.00	0.9894		mg/L		94	80 - 120
Fluoride	0.388		1.00	1.432		mg/L		104	80 - 120
Nitrite as N	<0.100		1.00	0.9768		mg/L		90	80 - 120
Sulfate	37.2		5.00	41.62	4	mg/L		88	80 - 120

Lab Sample ID: 310-251824-11 MSD
Matrix: Water
Analysis Batch: 382196

Client Sample ID: MW-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5.58		5.00	10.12		mg/L		91	80 - 120	1	15
Nitrate as N	<0.100		1.00	0.9835		mg/L		94	80 - 120	1	15
Fluoride	0.388		1.00	1.422		mg/L		103	80 - 120	1	15
Nitrite as N	<0.100		1.00	0.9748		mg/L		90	80 - 120	0	15
Sulfate	37.2		5.00	41.64	4	mg/L		88	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-382207/1-A
Matrix: Water
Analysis Batch: 382431

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 382207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Arsenic	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 17:50	1
Antimony	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 17:50	1
Barium	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 17:50	1

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

Lab Sample ID: MB 310-382207/1-A
Matrix: Water
Analysis Batch: 382431

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 382207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 17:50	1
Boron	<0.100		0.100		mg/L		03/27/23 08:55	03/27/23 17:50	1
Cadmium	<0.000100		0.000100		mg/L		03/27/23 08:55	03/27/23 17:50	1
Calcium	<0.500		0.500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Chromium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Cobalt	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Copper	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Lead	<0.000500		0.000500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Lithium	<0.0100		0.0100		mg/L		03/27/23 08:55	03/27/23 17:50	1
Magnesium	<0.500		0.500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Manganese	<0.0100		0.0100		mg/L		03/27/23 08:55	03/27/23 17:50	1
Molybdenum	<0.00200		0.00200		mg/L		03/27/23 08:55	03/27/23 17:50	1
Nickel	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Potassium	<0.500		0.500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Selenium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Silver	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 17:50	1
Sodium	<1.00		1.00		mg/L		03/27/23 08:55	03/27/23 17:50	1
Thallium	<0.00100		0.00100		mg/L		03/27/23 08:55	03/27/23 17:50	1
Vanadium	<0.00500		0.00500		mg/L		03/27/23 08:55	03/27/23 17:50	1
Zinc	<0.0200		0.0200		mg/L		03/27/23 08:55	03/27/23 17:50	1

Lab Sample ID: LCS 310-382207/2-A
Matrix: Water
Analysis Batch: 382431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 382207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2134		mg/L		107	80 - 120
Arsenic	0.200	0.1955		mg/L		98	80 - 120
Antimony	0.200	0.1972		mg/L		99	80 - 120
Barium	0.100	0.09605		mg/L		96	80 - 120
Beryllium	0.100	0.09095		mg/L		91	80 - 120
Boron	0.200	0.1721		mg/L		86	80 - 120
Cadmium	0.100	0.08752		mg/L		88	80 - 120
Calcium	2.00	2.019		mg/L		101	80 - 120
Chromium	0.100	0.09776		mg/L		98	80 - 120
Cobalt	0.100	0.09795		mg/L		98	80 - 120
Copper	0.200	0.1976		mg/L		99	80 - 120
Lead	0.200	0.1878		mg/L		94	80 - 120
Lithium	0.200	0.1903		mg/L		95	80 - 120
Magnesium	2.00	1.917		mg/L		96	80 - 120
Manganese	0.100	0.09883		mg/L		99	80 - 120
Molybdenum	0.200	0.1882		mg/L		94	80 - 120
Nickel	0.200	0.1910		mg/L		95	80 - 120
Potassium	2.00	2.029		mg/L		101	80 - 120
Selenium	0.400	0.3717		mg/L		93	80 - 120
Silver	0.100	0.09081		mg/L		91	80 - 120
Sodium	2.00	1.995		mg/L		100	80 - 120
Thallium	0.200	0.1908		mg/L		95	80 - 120
Vanadium	0.100	0.09657		mg/L		97	80 - 120

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

Lab Sample ID: LCS 310-382207/2-A
Matrix: Water
Analysis Batch: 382431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 382207

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Zinc			0.200	0.1891		mg/L		95	80 - 120		

Lab Sample ID: 310-251824-5 DU
Matrix: Water
Analysis Batch: 382431

Client Sample ID: MW-13
Prep Type: Total/NA
Prep Batch: 382207

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Aluminum	0.0565			0.05239		mg/L				8	20
Arsenic	<0.00200			<0.00200		mg/L				NC	20
Antimony	<0.00200			<0.00200		mg/L				NC	20
Barium	0.0784			0.07685		mg/L				2	20
Beryllium	<0.00100			<0.00100		mg/L				NC	20
Boron	0.362			0.3389		mg/L				7	20
Cadmium	<0.000100			<0.000100		mg/L				NC	20
Calcium	80.3			77.13		mg/L				4	20
Chromium	<0.00500			<0.00500		mg/L				NC	20
Cobalt	0.00112			0.001090		mg/L				3	20
Copper	<0.00500			<0.00500		mg/L				NC	20
Lead	<0.000500			<0.000500		mg/L				NC	20
Lithium	0.0315			0.02973		mg/L				6	20
Magnesium	35.8			34.68		mg/L				3	20
Manganese	0.314			0.3048		mg/L				3	20
Molybdenum	0.00567			0.005580		mg/L				2	20
Nickel	0.00571			0.005685		mg/L				0.5	20
Potassium	5.71			5.384		mg/L				6	20
Selenium	<0.00500			<0.00500		mg/L				NC	20
Silver	<0.00100			<0.00100		mg/L				NC	20
Sodium	103			99.79		mg/L				3	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: 365.1 - Phosphorus, Total

Lab Sample ID: MB 310-381942/1-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 381942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/22/23 13:19	03/22/23 22:37	1

Lab Sample ID: LCS 310-381942/2-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 381942

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Phosphorus as P			1.00	0.9749		mg/L		97	90 - 110		

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: MB 310-381945/1-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 381945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/22/23 13:45	03/22/23 22:49	1

Lab Sample ID: LCS 310-381945/2-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 381945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	1.006		mg/L		100	90 - 110

Lab Sample ID: 310-251824-7 MS
Matrix: Water
Analysis Batch: 381991

Client Sample ID: MW-15
Prep Type: Total/NA
Prep Batch: 381945

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	<0.100		1.00	1.009		mg/L		101	90 - 110

Lab Sample ID: 310-251824-7 MSD
Matrix: Water
Analysis Batch: 381991

Client Sample ID: MW-15
Prep Type: Total/NA
Prep Batch: 381945

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	1.006		mg/L		100	90 - 110	0	13

Lab Sample ID: MB 310-381957/1-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 381957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	<0.100		0.100		mg/L		03/22/23 14:48	03/22/23 23:42	1

Lab Sample ID: LCS 310-381957/2-A
Matrix: Water
Analysis Batch: 381991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 381957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	1.00	1.021		mg/L		102	90 - 110

Lab Sample ID: 310-251824-6 MS
Matrix: Water
Analysis Batch: 381991

Client Sample ID: MW-14
Prep Type: Total/NA
Prep Batch: 381957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Phosphorus as P	<0.100		1.00	1.061		mg/L		106	90 - 110

Lab Sample ID: 310-251824-6 MSD
Matrix: Water
Analysis Batch: 381991

Client Sample ID: MW-14
Prep Type: Total/NA
Prep Batch: 381957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Phosphorus as P	<0.100		1.00	1.065		mg/L		106	90 - 110	0	13

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 310-382400/2
Matrix: Water
Analysis Batch: 382400

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.00		5.00		mg/L			03/27/23 15:38	1
Bicarbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/27/23 15:38	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/27/23 15:38	1

Lab Sample ID: MB 310-382400/26
Matrix: Water
Analysis Batch: 382400

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	<5.00		5.00		mg/L			03/27/23 19:30	1
Bicarbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/27/23 19:30	1
Carbonate Alkalinity as CaCO3	<5.00		5.00		mg/L			03/27/23 19:30	1

Lab Sample ID: LCS 310-382400/27
Matrix: Water
Analysis Batch: 382400

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			1000	1021		mg/L		102	90 - 110		

Lab Sample ID: LCS 310-382400/3
Matrix: Water
Analysis Batch: 382400

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			1000	1044		mg/L		104	90 - 110		

Lab Sample ID: 310-251824-1 MS
Matrix: Water
Analysis Batch: 382400

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5	358	F1	100	341.1	F1	mg/L		-17	71 - 130		

Lab Sample ID: 310-251824-1 MSD
Matrix: Water
Analysis Batch: 382400

Client Sample ID: MW-2A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	358	F1	100	339.3	F1	mg/L		-18	71 - 130	1	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-382084/1
Matrix: Water
Analysis Batch: 382084

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			03/23/23 14:24	1

Lab Sample ID: LCS 310-382084/2
Matrix: Water
Analysis Batch: 382084

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	944.0		mg/L		94	90 - 110		

Lab Sample ID: 310-251824-12 DU
Matrix: Water
Analysis Batch: 382084

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	400			398.0		mg/L				0.5	20

Lab Sample ID: MB 310-382213/1
Matrix: Water
Analysis Batch: 382213

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<50.0		50.0		mg/L			03/24/23 14:34	1

Lab Sample ID: LCS 310-382213/2
Matrix: Water
Analysis Batch: 382213

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	938.0		mg/L		94	90 - 110		

HPLC/IC

Analysis Batch: 382196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	9056A	
310-251824-1	MW-2A	Total/NA	Water	9056A	
310-251824-2	MW-4	Total/NA	Water	9056A	
310-251824-2	MW-4	Total/NA	Water	9056A	
310-251824-3	MW-11	Total/NA	Water	9056A	
310-251824-3	MW-11	Total/NA	Water	9056A	
310-251824-4	MW-12	Total/NA	Water	9056A	
310-251824-4	MW-12	Total/NA	Water	9056A	
310-251824-5	MW-13	Total/NA	Water	9056A	
310-251824-5	MW-13	Total/NA	Water	9056A	
310-251824-6	MW-14	Total/NA	Water	9056A	
310-251824-6	MW-14	Total/NA	Water	9056A	
310-251824-6	MW-14	Total/NA	Water	9056A	
310-251824-7	MW-15	Total/NA	Water	9056A	
310-251824-7	MW-15	Total/NA	Water	9056A	
310-251824-8	MW-4L	Total/NA	Water	9056A	
310-251824-8	MW-4L	Total/NA	Water	9056A	
310-251824-9	MW-7	Total/NA	Water	9056A	
310-251824-9	MW-7	Total/NA	Water	9056A	
310-251824-10	MW-19	Total/NA	Water	9056A	
310-251824-11	MW-20	Total/NA	Water	9056A	
310-251824-12	Duplicate	Total/NA	Water	9056A	
MB 310-382196/3	Method Blank	Total/NA	Water	9056A	
LCS 310-382196/4	Lab Control Sample	Total/NA	Water	9056A	
310-251824-11 MS	MW-20	Total/NA	Water	9056A	
310-251824-11 MSD	MW-20	Total/NA	Water	9056A	

Analysis Batch: 772176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	300.1B-1997 R1.	
310-251824-4	MW-12	Total/NA	Water	300.1B-1997 R1.	
310-251824-5	MW-13	Total/NA	Water	300.1B-1997 R1.	
310-251824-7	MW-15	Total/NA	Water	300.1B-1997 R1.	
310-251824-9	MW-7	Total/NA	Water	300.1B-1997 R1.	
MB 680-772176/7	Method Blank	Total/NA	Water	300.1B-1997 R1.	
LCS 680-772176/8	Lab Control Sample	Total/NA	Water	300.1B-1997 R1.	
LCSD 680-772176/9	Lab Control Sample Dup	Total/NA	Water	300.1B-1997 R1.	
310-251824-4 MS	MW-12	Total/NA	Water	300.1B-1997 R1.	
310-251824-4 MSD	MW-12	Total/NA	Water	300.1B-1997 R1.	

Analysis Batch: 772177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-2	MW-4	Total/NA	Water	300.1B-1997 R1.	

HPLC/IC (Continued)

Analysis Batch: 772177 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-3	MW-11	Total/NA	Water	300.1B-1997 R1.	
310-251824-6	MW-14	Total/NA	Water	300.1B-1997 R1.	
310-251824-8	MW-4L	Total/NA	Water	300.1B-1997 R1.	
310-251824-10	MW-19	Total/NA	Water	300.1B-1997 R1.	
310-251824-11	MW-20	Total/NA	Water	300.1B-1997 R1.	
310-251824-12	Duplicate	Total/NA	Water	300.1B-1997 R1.	
MB 680-772177/38	Method Blank	Total/NA	Water	300.1B-1997 R1.	
LCS 680-772177/40	Lab Control Sample	Total/NA	Water	300.1B-1997 R1.	
LCSD 680-772177/41	Lab Control Sample Dup	Total/NA	Water	300.1B-1997 R1.	
310-251824-8 MS	MW-4L	Total/NA	Water	300.1B-1997 R1.	
310-251824-8 MSD	MW-4L	Total/NA	Water	300.1B-1997 R1.	

Metals

Prep Batch: 382207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	3005A	
310-251824-2	MW-4	Total/NA	Water	3005A	
310-251824-3	MW-11	Total/NA	Water	3005A	
310-251824-4	MW-12	Total/NA	Water	3005A	
310-251824-5	MW-13	Total/NA	Water	3005A	
310-251824-6	MW-14	Total/NA	Water	3005A	
310-251824-7	MW-15	Total/NA	Water	3005A	
310-251824-8	MW-4L	Total/NA	Water	3005A	
310-251824-9	MW-7	Total/NA	Water	3005A	
310-251824-10	MW-19	Total/NA	Water	3005A	
310-251824-11	MW-20	Total/NA	Water	3005A	
310-251824-12	Duplicate	Total/NA	Water	3005A	
MB 310-382207/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-382207/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-251824-5 DU	MW-13	Total/NA	Water	3005A	

Analysis Batch: 382431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	6020B	382207
310-251824-2	MW-4	Total/NA	Water	6020B	382207
310-251824-3	MW-11	Total/NA	Water	6020B	382207
310-251824-4	MW-12	Total/NA	Water	6020B	382207
310-251824-5	MW-13	Total/NA	Water	6020B	382207
310-251824-6	MW-14	Total/NA	Water	6020B	382207
310-251824-7	MW-15	Total/NA	Water	6020B	382207
310-251824-8	MW-4L	Total/NA	Water	6020B	382207
310-251824-9	MW-7	Total/NA	Water	6020B	382207

Metals (Continued)

Analysis Batch: 382431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-10	MW-19	Total/NA	Water	6020B	382207
310-251824-11	MW-20	Total/NA	Water	6020B	382207
310-251824-12	Duplicate	Total/NA	Water	6020B	382207
MB 310-382207/1-A	Method Blank	Total/NA	Water	6020B	382207
LCS 310-382207/2-A	Lab Control Sample	Total/NA	Water	6020B	382207
310-251824-5 DU	MW-13	Total/NA	Water	6020B	382207

Analysis Batch: 382489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-2	MW-4	Total/NA	Water	6020B	382207
310-251824-2	MW-4	Total/NA	Water	6020B	382207
310-251824-6	MW-14	Total/NA	Water	6020B	382207
310-251824-8	MW-4L	Total/NA	Water	6020B	382207
310-251824-8	MW-4L	Total/NA	Water	6020B	382207

Analysis Batch: 382839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-3	MW-11	Total/NA	Water	6020B	382207
310-251824-3	MW-11	Total/NA	Water	6020B	382207

Analysis Batch: 382916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-6	MW-14	Total/NA	Water	6020B	382207

General Chemistry

Prep Batch: 381942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-2	MW-4	Total/NA	Water	365.1	
310-251824-3	MW-11	Total/NA	Water	365.1	
310-251824-5	MW-13	Total/NA	Water	365.1	
310-251824-11	MW-20	Total/NA	Water	365.1	
MB 310-381942/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-381942/2-A	Lab Control Sample	Total/NA	Water	365.1	

Prep Batch: 381945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	365.1	
310-251824-4	MW-12	Total/NA	Water	365.1	
310-251824-7	MW-15	Total/NA	Water	365.1	
310-251824-12	Duplicate	Total/NA	Water	365.1	
MB 310-381945/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-381945/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-251824-7 MS	MW-15	Total/NA	Water	365.1	
310-251824-7 MSD	MW-15	Total/NA	Water	365.1	

Prep Batch: 381957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-6	MW-14	Total/NA	Water	365.1	
310-251824-8	MW-4L	Total/NA	Water	365.1	
310-251824-9	MW-7	Total/NA	Water	365.1	

General Chemistry (Continued)

Prep Batch: 381957 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-10	MW-19	Total/NA	Water	365.1	
MB 310-381957/1-A	Method Blank	Total/NA	Water	365.1	
LCS 310-381957/2-A	Lab Control Sample	Total/NA	Water	365.1	
310-251824-6 MS	MW-14	Total/NA	Water	365.1	
310-251824-6 MSD	MW-14	Total/NA	Water	365.1	

Analysis Batch: 381991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	365.1	381945
310-251824-2	MW-4	Total/NA	Water	365.1	381942
310-251824-3	MW-11	Total/NA	Water	365.1	381942
310-251824-4	MW-12	Total/NA	Water	365.1	381945
310-251824-5	MW-13	Total/NA	Water	365.1	381942
310-251824-6	MW-14	Total/NA	Water	365.1	381957
310-251824-7	MW-15	Total/NA	Water	365.1	381945
310-251824-8	MW-4L	Total/NA	Water	365.1	381957
310-251824-9	MW-7	Total/NA	Water	365.1	381957
310-251824-10	MW-19	Total/NA	Water	365.1	381957
310-251824-11	MW-20	Total/NA	Water	365.1	381942
310-251824-12	Duplicate	Total/NA	Water	365.1	381945
MB 310-381942/1-A	Method Blank	Total/NA	Water	365.1	381942
MB 310-381945/1-A	Method Blank	Total/NA	Water	365.1	381945
MB 310-381957/1-A	Method Blank	Total/NA	Water	365.1	381957
LCS 310-381942/2-A	Lab Control Sample	Total/NA	Water	365.1	381942
LCS 310-381945/2-A	Lab Control Sample	Total/NA	Water	365.1	381945
LCS 310-381957/2-A	Lab Control Sample	Total/NA	Water	365.1	381957
310-251824-6 MS	MW-14	Total/NA	Water	365.1	381957
310-251824-6 MSD	MW-14	Total/NA	Water	365.1	381957
310-251824-7 MS	MW-15	Total/NA	Water	365.1	381945
310-251824-7 MSD	MW-15	Total/NA	Water	365.1	381945

Analysis Batch: 382084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	SM 2540C	
310-251824-2	MW-4	Total/NA	Water	SM 2540C	
310-251824-3	MW-11	Total/NA	Water	SM 2540C	
310-251824-4	MW-12	Total/NA	Water	SM 2540C	
310-251824-5	MW-13	Total/NA	Water	SM 2540C	
310-251824-6	MW-14	Total/NA	Water	SM 2540C	
310-251824-7	MW-15	Total/NA	Water	SM 2540C	
310-251824-11	MW-20	Total/NA	Water	SM 2540C	
310-251824-12	Duplicate	Total/NA	Water	SM 2540C	
MB 310-382084/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-382084/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-251824-12 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 382213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-8	MW-4L	Total/NA	Water	SM 2540C	
310-251824-9	MW-7	Total/NA	Water	SM 2540C	
310-251824-10	MW-19	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 382213 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-382213/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-382213/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 382400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-251824-1	MW-2A	Total/NA	Water	SM 2320B	
310-251824-2	MW-4	Total/NA	Water	SM 2320B	
310-251824-3	MW-11	Total/NA	Water	SM 2320B	
310-251824-4	MW-12	Total/NA	Water	SM 2320B	
310-251824-5	MW-13	Total/NA	Water	SM 2320B	
310-251824-6	MW-14	Total/NA	Water	SM 2320B	
310-251824-7	MW-15	Total/NA	Water	SM 2320B	
310-251824-8	MW-4L	Total/NA	Water	SM 2320B	
310-251824-9	MW-7	Total/NA	Water	SM 2320B	
310-251824-10	MW-19	Total/NA	Water	SM 2320B	
310-251824-11	MW-20	Total/NA	Water	SM 2320B	
310-251824-12	Duplicate	Total/NA	Water	SM 2320B	
MB 310-382400/2	Method Blank	Total/NA	Water	SM 2320B	
MB 310-382400/26	Method Blank	Total/NA	Water	SM 2320B	
LCS 310-382400/27	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 310-382400/3	Lab Control Sample	Total/NA	Water	SM 2320B	
310-251824-1 MS	MW-2A	Total/NA	Water	SM 2320B	
310-251824-1 MSD	MW-2A	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-2A
Date Collected: 03/21/23 09:40
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 05:23
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 12:59
Total/NA	Analysis	9056A		10	382196	QTZ5	EET CF	03/24/23 19:59
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 18:54
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:59
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 19:47
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: MW-4
Date Collected: 03/21/23 13:15
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		25	772177	KMB	EET SAV	04/08/23 18:05
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 15:35
Total/NA	Analysis	9056A		50	382196	QTZ5	EET CF	03/24/23 21:52
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 18:57
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		100	382489	A6US	EET CF	03/28/23 12:39
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		4	382489	A6US	EET CF	03/28/23 12:48
Total/NA	Prep	365.1			381942	MAQ3	EET CF	03/22/23 13:19
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:43
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 20:12
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: MW-11
Date Collected: 03/21/23 12:50
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		25	772177	KMB	EET SAV	04/08/23 18:38
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 15:20
Total/NA	Analysis	9056A		50	382196	QTZ5	EET CF	03/24/23 21:38
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:01
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		100	382839	A6US	EET CF	03/30/23 11:57
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		4	382839	A6US	EET CF	03/30/23 12:00

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-11
Date Collected: 03/21/23 12:50
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	365.1			381942	MAQ3	EET CF	03/22/23 13:19
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:43
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 20:41
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: MW-12
Date Collected: 03/21/23 12:15
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 07:01
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 14:52
Total/NA	Analysis	9056A		10	382196	QTZ5	EET CF	03/24/23 21:10
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:04
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:57
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 21:02
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: MW-13
Date Collected: 03/21/23 11:10
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 08:40
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 13:27
Total/NA	Analysis	9056A		10	382196	QTZ5	EET CF	03/24/23 20:55
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:08
Total/NA	Prep	365.1			381942	MAQ3	EET CF	03/22/23 13:19
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:48
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 21:11
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: MW-14
Date Collected: 03/21/23 10:00
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		25	772177	KMB	EET SAV	04/08/23 19:11
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 13:13
Total/NA	Analysis	9056A		20	382196	QTZ5	EET CF	03/24/23 20:13
Total/NA	Analysis	9056A		100	382196	QTZ5	EET CF	03/27/23 10:38

Client Sample ID: MW-14

Lab Sample ID: 310-251824-6

Date Collected: 03/21/23 10:00

Matrix: Water

Date Received: 03/22/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:15
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		4	382489	A6US	EET CF	03/28/23 12:45
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		100	382916	A6US	EET CF	03/31/23 12:39
Total/NA	Prep	365.1			381957	MAQ3	EET CF	03/22/23 14:48
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 23:43
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 18:16
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: MW-15

Lab Sample ID: 310-251824-7

Date Collected: 03/21/23 08:35

Matrix: Water

Date Received: 03/22/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 09:46
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 12:31
Total/NA	Analysis	9056A		10	382196	QTZ5	EET CF	03/24/23 19:31
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:18
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:50
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 18:23
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: MW-4L

Lab Sample ID: 310-251824-8

Date Collected: 03/21/23 12:33

Matrix: Water

Date Received: 03/22/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		25	772177	KMB	EET SAV	04/08/23 19:44
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 15:06
Total/NA	Analysis	9056A		50	382196	QTZ5	EET CF	03/24/23 21:24
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:46
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		100	382489	A6US	EET CF	03/28/23 12:42
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		4	382489	A6US	EET CF	03/28/23 12:51
Total/NA	Prep	365.1			381957	MAQ3	EET CF	03/22/23 14:48
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 23:51
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 18:32
Total/NA	Analysis	SM 2540C		1	382213	ENB7	EET CF	03/24/23 14:34

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: MW-7

Lab Sample ID: 310-251824-9

Date Collected: 03/21/23 09:15

Matrix: Water

Date Received: 03/22/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772176	KMB	EET SAV	04/08/23 10:52
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 12:45
Total/NA	Analysis	9056A		10	382196	QTZ5	EET CF	03/24/23 19:45
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:49
Total/NA	Prep	365.1			381957	MAQ3	EET CF	03/22/23 14:48
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 23:51
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 19:02
Total/NA	Analysis	SM 2540C		1	382213	ENB7	EET CF	03/24/23 14:34

Client Sample ID: MW-19

Lab Sample ID: 310-251824-10

Date Collected: 03/21/23 11:35

Matrix: Water

Date Received: 03/22/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772177	KMB	EET SAV	04/08/23 21:23
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 14:24
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:52
Total/NA	Prep	365.1			381957	MAQ3	EET CF	03/22/23 14:48
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 23:51
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 19:10
Total/NA	Analysis	SM 2540C		1	382213	ENB7	EET CF	03/24/23 14:34

Client Sample ID: MW-20

Lab Sample ID: 310-251824-11

Date Collected: 03/21/23 08:15

Matrix: Water

Date Received: 03/22/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772177	KMB	EET SAV	04/08/23 21:56
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 11:49
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:56
Total/NA	Prep	365.1			381942	MAQ3	EET CF	03/22/23 13:19
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:46
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 19:19
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Client Sample ID: Duplicate

Lab Sample ID: 310-251824-12

Date Collected: 03/21/23 11:37

Matrix: Water

Date Received: 03/22/23 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.1B-1997 R1.		1	772177	KMB	EET SAV	04/08/23 22:28

Lab Chronicle

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Client Sample ID: Duplicate

Date Collected: 03/21/23 11:37
Date Received: 03/22/23 10:20

Lab Sample ID: 310-251824-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	382196	QTZ5	EET CF	03/22/23 14:38
Total/NA	Prep	3005A			382207	QTZ5	EET CF	03/27/23 08:55
Total/NA	Analysis	6020B		1	382431	A6US	EET CF	03/27/23 19:59
Total/NA	Prep	365.1			381945	MAQ3	EET CF	03/22/23 13:45
Total/NA	Analysis	365.1		1	381991	ZJX4	EET CF	03/22/23 22:58
Total/NA	Analysis	SM 2320B		1	382400	MAQ3	EET CF	03/27/23 21:19
Total/NA	Analysis	SM 2540C		1	382084	ENB7	EET CF	03/23/23 14:24

Laboratory References:

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

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Blackstone Environmental, Inc
Job ID: 310-251824-1
Project/Site: Buffalo, IA

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	353	07-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.1B-1997 R1.		Water	Bromate

Method Summary

Client: Blackstone Environmental, Inc
Project/Site: Buffalo, IA

Job ID: 310-251824-1

Method	Method Description	Protocol	Laboratory
300.1B-1997 R1.	Disinfection By-Products, (IC)	EPA	EET SAV
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
365.1	Phosphorus, Total	EPA	EET CF
SM 2320B	Alkalinity	SM	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
365.1	Sample Digestion for Total Phosphorus	MCAWW	EET CF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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 SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

eurofins | Environment Testing America

310-251824 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone Environmental

City/State: CITY | STATE IL | Project:

Receipt Information

Date/Time Received: DATE 3-22-23 | TIME 1020 | 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 # 1 of 3

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): 1.6 | Corrected Temp (°C): 1.6

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

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone Environmental

City/State: CITY: | STATE: IL | Project:

Receipt Information

Date/Time Received: DATE: 3-22-23 | TIME: 1020 | 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 # 2 of 3

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

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Blackstone Environmental

City/State: CITY | STATE IL | Project:

Receipt Information

Date/Time Received: DATE 3-22-23 | TIME 1020 | 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 # 3 of 3

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): 0.4 | Corrected Temp (°C): 0.4

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

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information	Sampler: Megan Ostrand	Lab PM: Calhoun Conner M	Carrier Tracking No(s):	COC No: 310-79151-22246 2
Client Contact: Krista Brodersen	Phone: 309-581-5095	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page:
Company: Blackstone Environmental, Inc	PWSID:			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested:			
City: Moline	TAT Requested (days): 10 days			
State, Zip: IL, 61265	Compliance Project: Δ Yes Δ No			
Phone: 309-581-5095	PO #: Purchase Order not required 3433			
Email: kbrodersen@blackstone-env com	WO #:			
Project Name: Buffalo IA	Project #: 31010114			
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	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)	2320B- Bicarbonate and carbonate Alkalinity	2540C_Calcd TDS	9056A_ORGFM_28D- Chloride, Fluoride, and Sulfate	9056A_ORGFM_48H- Nitrate and Nitrite	365.1 - Phosphorus, Total	6020A - Client List Metals	Bromate (subcontract)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	N	D					
MW-2A	3.21.23	940	G	Water	N	N	X	X	X	X	X	X	X		
MW-4		1315	G	Water			X	X	X	X	X	X	X		
MW-11		1250	G	Water			X	X	X	X	X	X	X		
MW-12		1215	G	Water			X	X	X	X	X	X	X		
MW-13		1110	G	Water			X	X	X	X	X	X	X		
MW-14		1060	G	Water			X	X	X	X	X	X	X		
MW-15		835	G	Water			X	X	X	X	X	X	X		
MW-4C		1233	G	Water			X	X	X	X	X	X	X		
MW-7		915	G	Water			X	X	X	X	X	X	X		
[redacted]				Water											
MW-19	3.21.23	1135	G	Water			X	X	X	X	X	X	X		

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Megan Ostrand	3.21.23 1515	Blackstone	MC	3-22-23 1020	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver 01/16/2019

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information	Sampler: Megan Ostrand	Lab PM: Calhoun Conner M	Carrier Tracking No(s):	COC No: 310-79151-22246.2
Client Contact: Krista Brodersen	Phone: 309-581-5095	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page:
Company: Blackstone Environmental Inc	PWSID:			Job #:
Address: 1465 41st Street Suite 13	Due Date Requested			
City: Moline	TAT Requested (days): 10 days			
State, Zip: IL, 61265	Compliance Project: Δ Yes Δ No			
Phone: 309-581-5095	PO #: Purchase Order not required 3433			
Email: kbrodersen@blackstone-env com	WO #:			
Project Name: Buffalo IA	Project #: 31010114			
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	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)	2320B- Bicarbonate and carbonate Alkalinity	2540C_Calcd TDS	9056A_ORGFM_28D- Chloride, Fluoride, and Sulfate	9056A_ORGFM_48H- Nitrate and Nitrite	365.1 - Phosphorus, Total	6020A - Client List Metals	Bromate (subcontract)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	S	N	D					
MW-20	3.21.23	815	G	Water	N	N	X	X	X	X	X	X	X		
Duplicate	3.21.23	1137	G	Water	N	N	X	X	X	X	X	X	X		
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Megan Ostrand	3.21.23 1515	Blackstone	MC	3-22-23 1020	
2						
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

4/11/2023

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

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler	Lab PM: Calhoun, Conner M	Carrier Tracking No(s):	COC No: 310-59517 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Conner Calhoun@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 2
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note): State - Iowa		Job #: 310-251824-1
Address: 5102 LaRoche Avenue	Due Date Requested: 4/4/2023			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Buffalo IA	Project #: 31010114			
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)	300 1B_28D/ Bromate	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-2A (310-251824-1)	3/21/23	09:40 Central		Water			X	1	
MW-4 (310-251824-2)	3/21/23	13 15 Central		Water			X	1	
MW-11 (310-251824-3)	3/21/23	12.50 Central		Water			X	1	
MW-12 (310-251824-4)	3/21/23	12.15 Central		Water			X	1	
MW-13 (310-251824-5)	3/21/23	11 10 Central		Water			X	1	
MW-14 (310-251824-6)	3/21/23	10:00 Central		Water			X	1	
MW-15 (310-251824-7)	3/21/23	08 35 Central		Water			X	1	
MW-4L (310-251824-8)	3/21/23	12.33 Central		Water			X	1	
MW-7 (310-251824-9)	3/21/23	09:15 Central		Water			X	1	

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
1	[signature]	3/22/23 1435		[signature]	03-23-23	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11:00	Company
3	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: 4.2 - 4.2

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Blackstone Environmental, Inc

Job Number: 310-251824-1

Login Number: 251824
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.	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: Blackstone Environmental, Inc

Job Number: 310-251824-1

Login Number: 251824
List Number: 2
Creator: Harley, Tynisha

List Source: Eurofins Savannah
List Creation: 03/23/23 03:13 PM

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.	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.	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.	N/A	
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	

APPENDIX C

CONTINENTAL ANNUAL WATER QUALITY REPORT

Statistical Output

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Summary Report

Constituent: Aluminum Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 36%
Wells = 1
Minimum Value = 0.012
Maximum Value = 2.96
Mean Value = 0.4567
Median Value = 0.163
Standard Deviation = 0.8649
Coefficient of Variation = 1.894
Skewness = 2.486

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	36%	0.012	2.96	0.4567	0.163	0.8649	1.894	2.486

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Summary Report

Constituent: Antimony Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 100%
Wells = 1
Minimum Value = 0.00051
Maximum Value = 0.015
Mean Value = 0.003731
Median Value = 0.001
Standard Deviation = 0.005598
Coefficient of Variation = 1.501
Skewness = 1.613

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	100%	0.00051	0.015	0.003731	0.001	0.005598	1.501	1.613

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Summary Report

Constituent: Arsenic Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 81%
Wells = 1
Minimum Value = 0.00088
Maximum Value = 0.01
Mean Value = 0.003752
Median Value = 0.002
Standard Deviation = 0.003488
Coefficient of Variation = 0.9297
Skewness = 1.122

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	81%	0.00088	0.01	0.003752	0.002	0.003488	0.9297	1.122

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Summary Report

Constituent: Barium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 0.0523
Maximum Value = 0.528
Mean Value = 0.1168
Median Value = 0.0651
Standard Deviation = 0.1391
Coefficient of Variation = 1.19
Skewness = 2.661

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	0.0523	0.528	0.1168	0.0651	0.1391	1.19	2.661

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Summary Report

Constituent: Beryllium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 90%
Wells = 1
Minimum Value = 0.00027
Maximum Value = 0.0016
Mean Value = 0.0009218
Median Value = 0.001
Standard Deviation = 0.0003686
Coefficient of Variation = 0.3998
Skewness = -0.4988

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	90%	0.00027	0.0016	0.0009218	0.001	0.0003686	0.3998	-0.4988

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Summary Report

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 3/20/2023, a summary of the selected data set:

Observations = 4
NDs = 0%
Wells = 1
Minimum Value = 412
Maximum Value = 454
Mean Value = 425
Median Value = 417
Standard Deviation = 19.48
Coefficient of Variation = 0.04583
Skewness = 1.103

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	4	0%	412	454	425	417	19.48	0.04583	1.103

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Summary Report

Constituent: Boron Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 72%
Wells = 1
Minimum Value = 0.1
Maximum Value = 0.32
Mean Value = 0.1655
Median Value = 0.174
Standard Deviation = 0.06846
Coefficient of Variation = 0.4135
Skewness = 0.8964

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	72%	0.1	0.32	0.1655	0.174	0.06846	0.4135	0.8964

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Summary Report

Constituent: Bromate Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/18/2021 and 3/20/2023, a summary of the selected data set:

Observations = 5
NDs = 80%
Wells = 1
Minimum Value = 5
Maximum Value = 6
Mean Value = 5.2
Median Value = 5
Standard Deviation = 0.4472
Coefficient of Variation = 0.086
Skewness = 1.5

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	5	80%	5	6	5.2	5	0.4472	0.086	1.5

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Summary Report

Constituent: Cadmium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 81%
Wells = 1
Minimum Value = 0.000055
Maximum Value = 0.005
Mean Value = 0.001121
Median Value = 0.000148
Standard Deviation = 0.001931
Coefficient of Variation = 1.723
Skewness = 1.601

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	81%	0.000055	0.005	0.001121	0.000148	0.001931	1.723	1.601

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Summary Report

Constituent: Calcium Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 145
Maximum Value = 340
Mean Value = 196.1
Median Value = 192
Standard Deviation = 50.37
Coefficient of Variation = 0.2569
Skewness = 2.298

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	145	340	196.1	192	50.37	0.2569	2.298

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Summary Report

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 3/20/2023, a summary of the selected data set:

Observations = 4
NDs = 100%
Wells = 1
Minimum Value = 5
Maximum Value = 20
Mean Value = 11.25
Median Value = 10
Standard Deviation = 6.292
Coefficient of Variation = 0.5592
Skewness = 0.652

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	4	100%	5	20	11.25	10	6.292	0.5592	0.652

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Summary Report

Constituent: Chloride Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 7.2
Maximum Value = 14.2
Mean Value = 11.31
Median Value = 12.3
Standard Deviation = 2.383
Coefficient of Variation = 0.2106
Skewness = -0.6003

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	7.2	14.2	11.31	12.3	2.383	0.2106	-0.6003

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Summary Report

Constituent: Chromium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 81%
Wells = 1
Minimum Value = 0.0011
Maximum Value = 0.108
Mean Value = 0.01382
Median Value = 0.005
Standard Deviation = 0.03126
Coefficient of Variation = 2.262
Skewness = 2.837

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	81%	0.0011	0.108	0.01382	0.005	0.03126	2.262	2.837

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Summary Report

Constituent: Cobalt Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 45%
Wells = 1
Minimum Value = 0.000272
Maximum Value = 0.0213
Mean Value = 0.004047
Median Value = 0.00225
Standard Deviation = 0.006032
Coefficient of Variation = 1.491
Skewness = 2.354

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	45%	0.000272	0.0213	0.004047	0.00225	0.006032	1.491	2.354

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Summary Report

Constituent: Copper Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 72%
Wells = 1
Minimum Value = 0.0015
Maximum Value = 0.155
Mean Value = 0.02109
Median Value = 0.005
Standard Deviation = 0.04479
Coefficient of Variation = 2.124
Skewness = 2.763

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	72%	0.0015	0.155	0.02109	0.005	0.04479	2.124	2.763

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Summary Report

Constituent: Fluoride Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 45%
Wells = 1
Minimum Value = 0.045
Maximum Value = 0.5
Mean Value = 0.2218
Median Value = 0.23
Standard Deviation = 0.1238
Coefficient of Variation = 0.5581
Skewness = 0.7381

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	45%	0.045	0.5	0.2218	0.23	0.1238	0.5581	0.7381

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Summary Report

Constituent: Lead Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 54%
Wells = 1
Minimum Value = 0.00011
Maximum Value = 0.01
Mean Value = 0.003203
Median Value = 0.00107
Standard Deviation = 0.004124
Coefficient of Variation = 1.288
Skewness = 1.002

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	54%	0.00011	0.01	0.003203	0.00107	0.004124	1.288	1.002

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Summary Report

Constituent: Lithium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 72%
Wells = 1
Minimum Value = 0.0049
Maximum Value = 0.0113
Mean Value = 0.009437
Median Value = 0.01
Standard Deviation = 0.00173
Coefficient of Variation = 0.1833
Skewness = -1.856

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	72%	0.0049	0.0113	0.009437	0.01	0.00173	0.1833	-1.856

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Summary Report

Constituent: Magnesium Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 54.1
Maximum Value = 117
Mean Value = 80.58
Median Value = 78.7
Standard Deviation = 16.98
Coefficient of Variation = 0.2108
Skewness = 0.706

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	54.1	117	80.58	78.7	16.98	0.2108	0.706

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Summary Report

Constituent: Manganese Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 0.00669
Maximum Value = 1.79
Mean Value = 0.2654
Median Value = 0.0843
Standard Deviation = 0.5187
Coefficient of Variation = 1.955
Skewness = 2.608

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	0.00669	1.79	0.2654	0.0843	0.5187	1.955	2.608

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Summary Report

Constituent: Molybdenum Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 72%
Wells = 1
Minimum Value = 0.0011
Maximum Value = 0.02
Mean Value = 0.006531
Median Value = 0.002
Standard Deviation = 0.008327
Coefficient of Variation = 1.275
Skewness = 1.022

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	72%	0.0011	0.02	0.006531	0.002	0.008327	1.275	1.022

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Summary Report

Constituent: Nickel Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 63%
Wells = 1
Minimum Value = 0.00232
Maximum Value = 0.128
Mean Value = 0.01621
Median Value = 0.005
Standard Deviation = 0.0371
Coefficient of Variation = 2.289
Skewness = 2.841

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	63%	0.00232	0.128	0.01621	0.005	0.0371	2.289	2.841

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Summary Report

Constituent: Nitrate Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 81%
Wells = 1
Minimum Value = 0.049
Maximum Value = 1
Mean Value = 0.183
Median Value = 0.1
Standard Deviation = 0.272
Coefficient of Variation = 1.486
Skewness = 2.807

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	81%	0.049	1	0.183	0.1	0.272	1.486	2.807

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Summary Report

Constituent: Nitrite Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/26/2020 and 3/20/2023, a summary of the selected data set:

Observations = 7
NDs = 85%
Wells = 1
Minimum Value = 0.039
Maximum Value = 0.1
Mean Value = 0.0911
Median Value = 0.1
Standard Deviation = 0.02298
Coefficient of Variation = 0.2522
Skewness = -2.039

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	7	85%	0.039	0.1	0.0911	0.1	0.02298	0.2522	-2.039

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Summary Report

Constituent: pH Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 6.53
Maximum Value = 8.22
Mean Value = 7.19
Median Value = 7.05
Standard Deviation = 0.4757
Coefficient of Variation = 0.06616
Skewness = 0.7805

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	6.53	8.22	7.19	7.05	0.4757	0.06616	0.7805

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Summary Report

Constituent: Phosphorus Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 72%
Wells = 1
Minimum Value = 0.039
Maximum Value = 0.527
Mean Value = 0.1349
Median Value = 0.1
Standard Deviation = 0.1315
Coefficient of Variation = 0.9748
Skewness = 2.723

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	72%	0.039	0.527	0.1349	0.1	0.1315	0.9748	2.723

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Summary Report

Constituent: Potassium Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 4.29
Maximum Value = 6.95
Mean Value = 5.147
Median Value = 4.91
Standard Deviation = 0.8662
Coefficient of Variation = 0.1683
Skewness = 0.952

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	4.29	6.95	5.147	4.91	0.8662	0.1683	0.952

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Summary Report

Constituent: Selenium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 81%
Wells = 1
Minimum Value = 0.001
Maximum Value = 0.0168
Mean Value = 0.006261
Median Value = 0.005
Standard Deviation = 0.005032
Coefficient of Variation = 0.8037
Skewness = 1.267

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	81%	0.001	0.0168	0.006261	0.005	0.005032	0.8037	1.267

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Summary Report

Constituent: Silver Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 100%
Wells = 1
Minimum Value = 0.00037
Maximum Value = 0.007
Mean Value = 0.001976
Median Value = 0.001
Standard Deviation = 0.002496
Coefficient of Variation = 1.263
Skewness = 1.61

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	100%	0.00037	0.007	0.001976	0.001	0.002496	1.263	1.61

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Summary Report

Constituent: Sodium Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 10.1
Maximum Value = 26.4
Mean Value = 17.87
Median Value = 17
Standard Deviation = 5.586
Coefficient of Variation = 0.3126
Skewness = 0.2468

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	10.1	26.4	17.87	17	5.586	0.3126	0.2468

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Summary Report

Constituent: Specific conductivity Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 960
Maximum Value = 1538
Mean Value = 1268
Median Value = 1230
Standard Deviation = 173.6
Coefficient of Variation = 0.137
Skewness = 0.06071

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	960	1538	1268	1230	173.6	0.137	0.06071

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Summary Report

Constituent: Sulfate Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 9%
Wells = 1
Minimum Value = 0.5
Maximum Value = 463
Mean Value = 333.1
Median Value = 368
Standard Deviation = 129.4
Coefficient of Variation = 0.3883
Skewness = -1.608

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	9%	0.5	463	333.1	368	129.4	0.3883	-1.608

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Summary Report

Constituent: Thallium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 100%
Wells = 1
Minimum Value = 0.00026
Maximum Value = 0.02
Mean Value = 0.004321
Median Value = 0.001
Standard Deviation = 0.007757
Coefficient of Variation = 1.795
Skewness = 1.644

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	100%	0.00026	0.02	0.004321	0.001	0.007757	1.795	1.644

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Summary Report

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 0%
Wells = 1
Minimum Value = 740
Maximum Value = 1140
Mean Value = 973.5
Median Value = 961
Standard Deviation = 112.7
Coefficient of Variation = 0.1158
Skewness = -0.4552

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	0%	740	1140	973.5	961	112.7	0.1158	-0.4552

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Summary Report

Constituent: Vanadium Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 81%
Wells = 1
Minimum Value = 0.00085
Maximum Value = 0.0107
Mean Value = 0.005814
Median Value = 0.005
Standard Deviation = 0.003149
Coefficient of Variation = 0.5417
Skewness = 0.3294

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	81%	0.00085	0.0107	0.005814	0.005	0.003149	0.5417	0.3294

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Summary Report

Constituent: Zinc Total Analysis Run 11/22/2023 11:02 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/20/2023, a summary of the selected data set:

Observations = 11
NDs = 81%
Wells = 1
Minimum Value = 0.01
Maximum Value = 0.58
Mean Value = 0.07464
Median Value = 0.02
Standard Deviation = 0.1682
Coefficient of Variation = 2.253
Skewness = 2.813

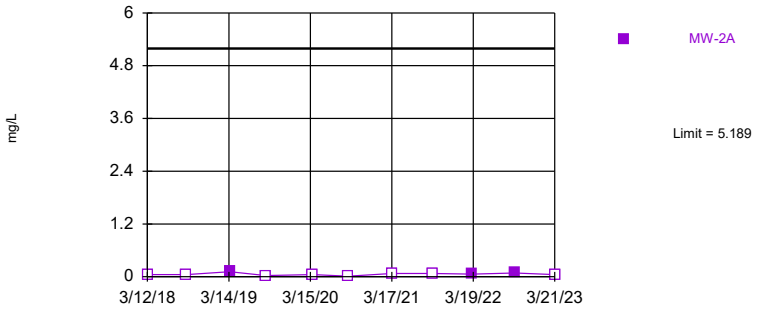
Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	11	81%	0.01	0.58	0.07464	0.02	0.1682	2.253	2.813

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.5988, Std. Dev.=0.344, n=11, 36.36% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8435, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

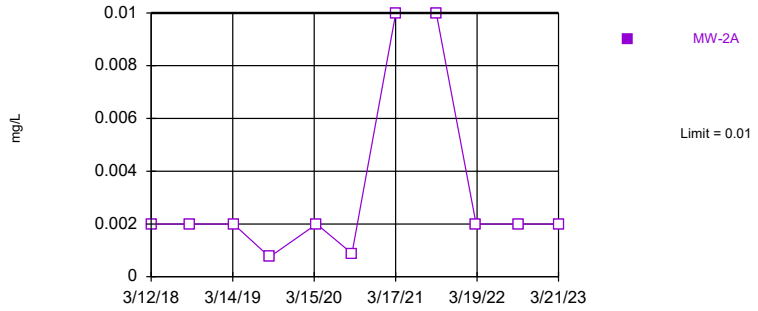
Constituent: Aluminum Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 11 background values. 81.82% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

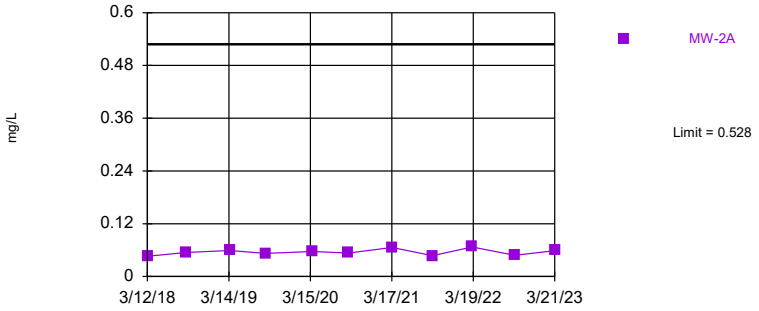
Constituent: Arsenic Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell 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 11 background values. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

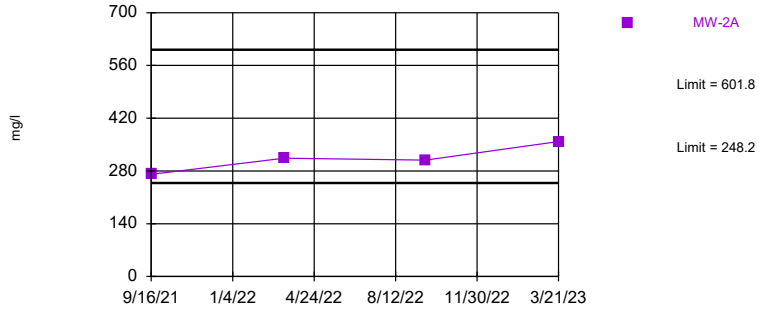
Constituent: Barium Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=425, Std. Dev.=19.48, n=4. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.732, critical = 0.687. Kappa = 9.078 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.00009755. Assumes 14 future values.

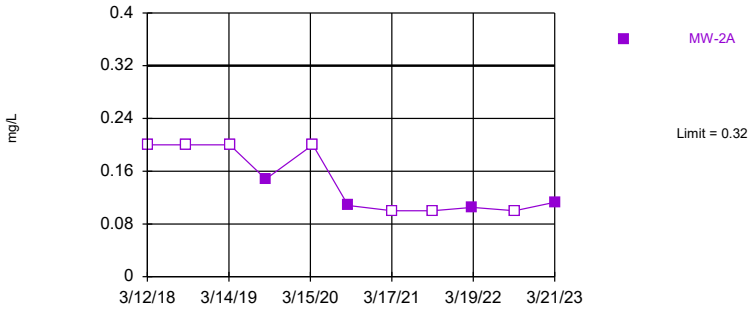
Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Ana
Continental Cement Data: Import 1

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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 11 background values. 72.73% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

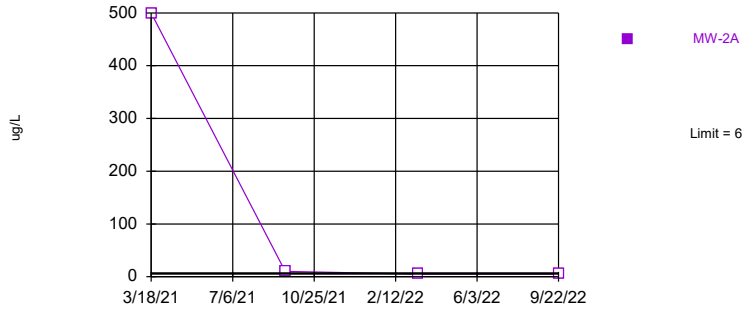
Constituent: Boron Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 5 background values. 80% NDs. Annual per-constituent alpha = 0.347. Individual comparison alpha = 0.02801 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

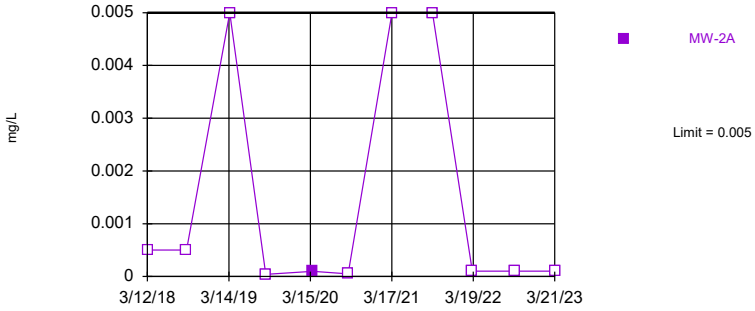
Constituent: Bromate Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 11 background values. 81.82% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

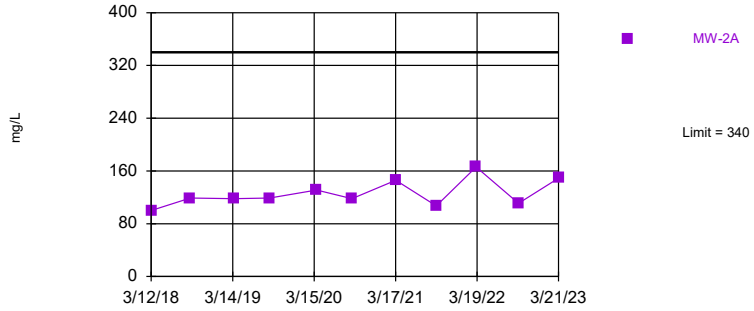
Constituent: Cadmium Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Non-parametric



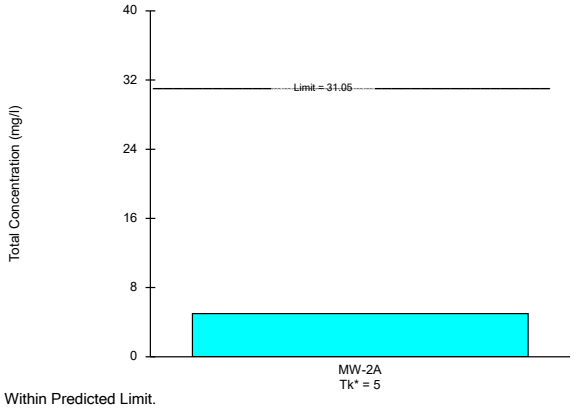
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Calcium Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1B,MW-2A



Within Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 100% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

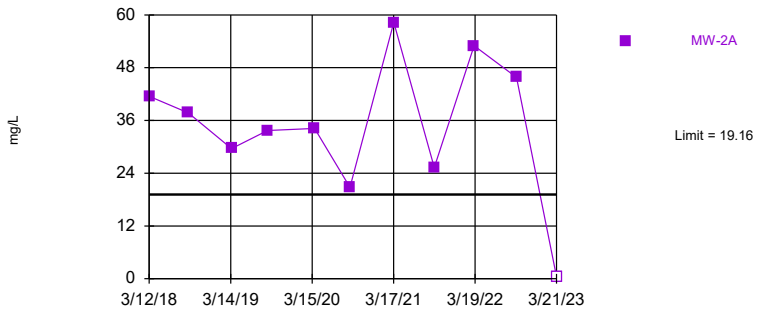
Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analy
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=11.31, Std. Dev.=2.383, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8946, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

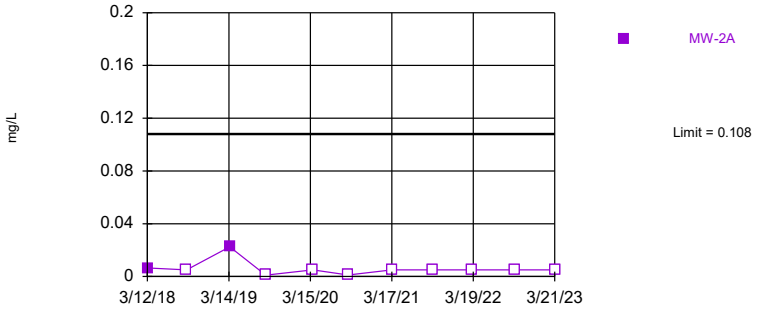
Constituent: Chloride Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 11 background values. 81.82% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

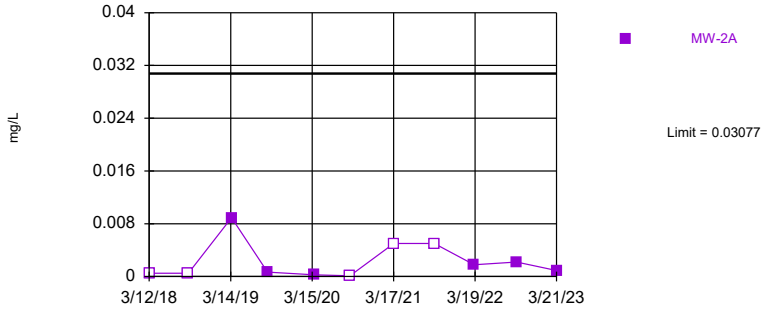
Constituent: Chromium Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=0.05278, Std. Dev.=0.03725, n=11, 45.45% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8266, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

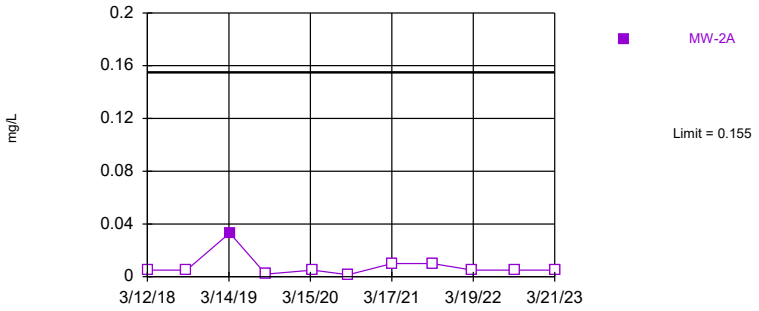
Constituent: Cobalt Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 11 background values. 72.73% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

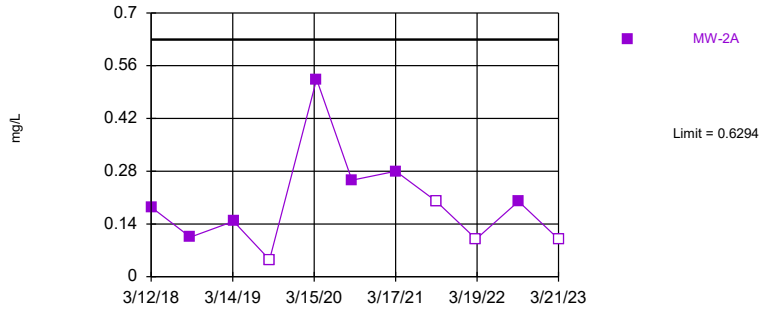
Constituent: Copper Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.2218, Std. Dev.=0.1238, n=11, 45.45% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9331, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

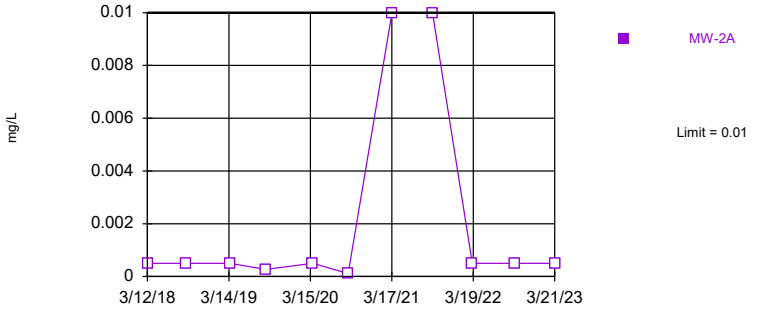
Constituent: Fluoride Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 11 background values. 54.55% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

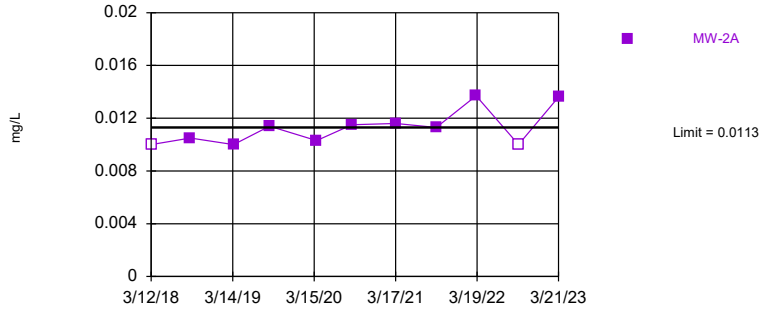
Constituent: Lead Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Exceeds Limit: MW-2A

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 72.73% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

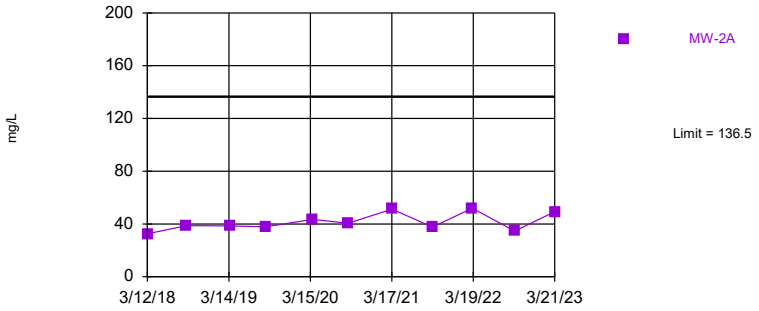
Constituent: Lithium Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=80.58, Std. Dev.=16.98, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9397, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Magnesium Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis

Continental Cement Data: Import 1

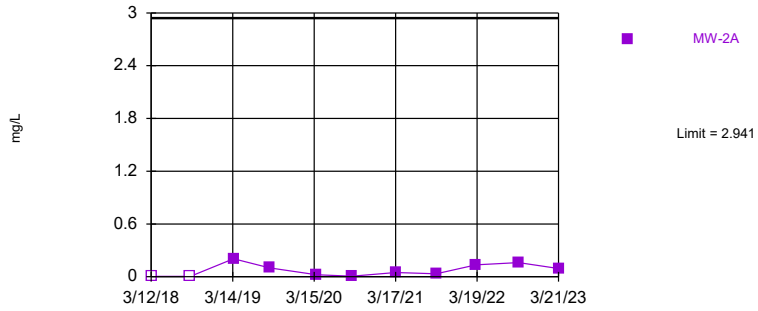
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.5022, Std. Dev.=0.2827, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8471, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Manganese Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis

Continental Cement Data: Import 1

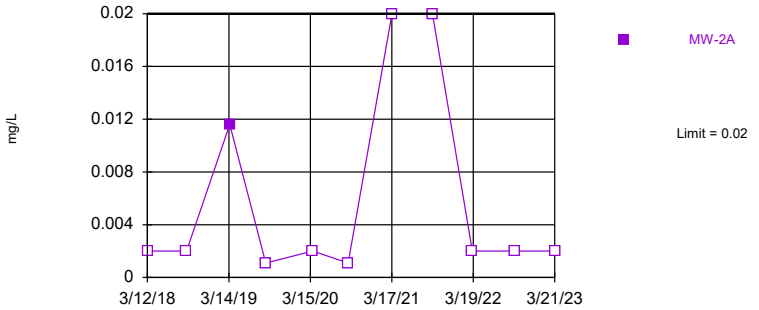
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

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 11 background values. 72.73% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Molybdenum Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysi

Continental Cement Data: Import 1

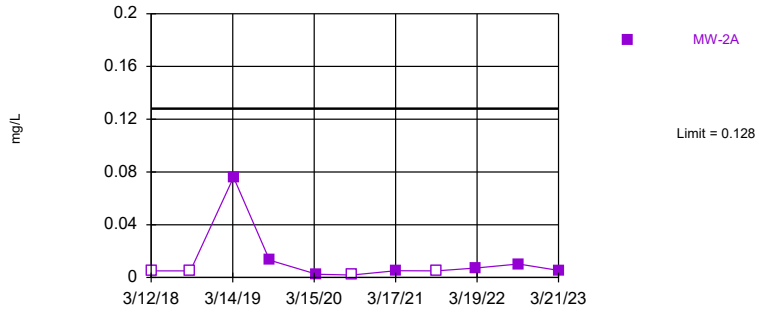
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

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 11 background values. 63.64% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Nickel Total Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis

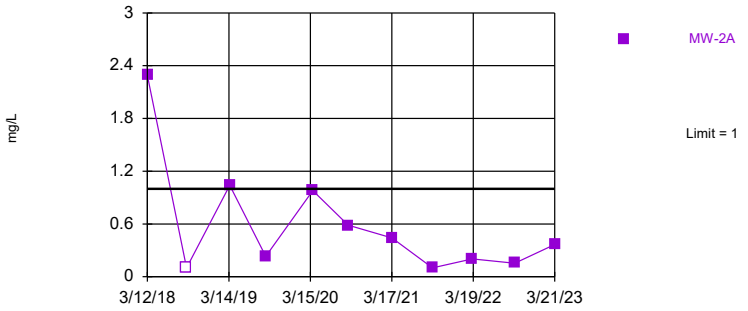
Continental Cement Data: Import 1

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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 11 background values. 81.82% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

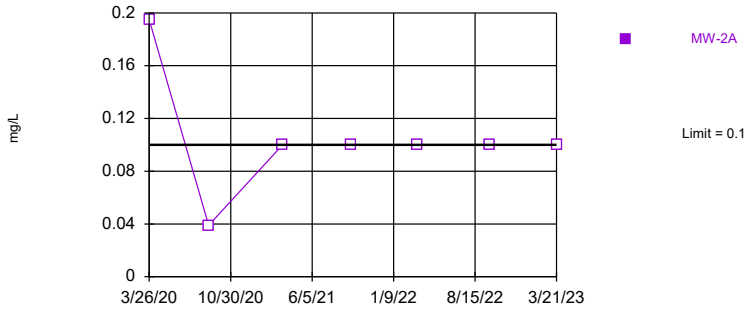
Constituent: Nitrate Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 7 background values. 85.71% NDs. Annual per-constituent alpha = 0.2477. Individual comparison alpha = 0.01879 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

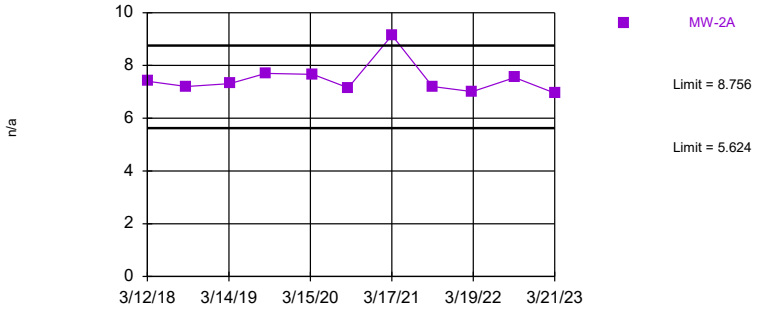
Constituent: Nitrite Analysis Run 11/22/2023 11:25 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=7.19, Std. Dev.=0.4757, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9286, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.00009755. Assumes 14 future values.

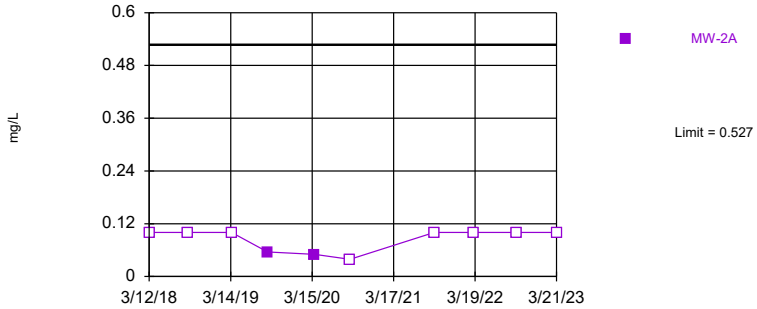
Constituent: pH Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 11 background values. 72.73% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

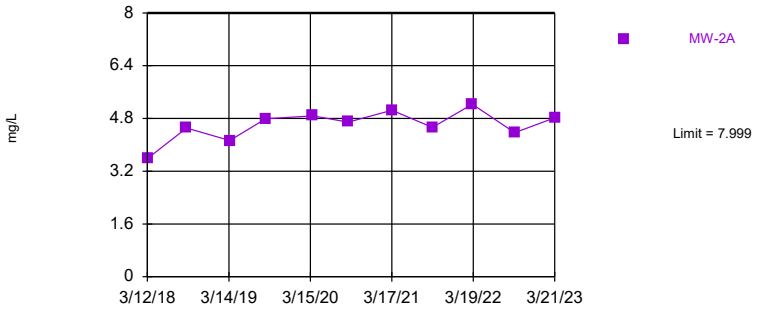
Constituent: Phosphorus Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.147, Std. Dev.=0.8662, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8783, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Potassium Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis

Continental Cement Data: Import 1

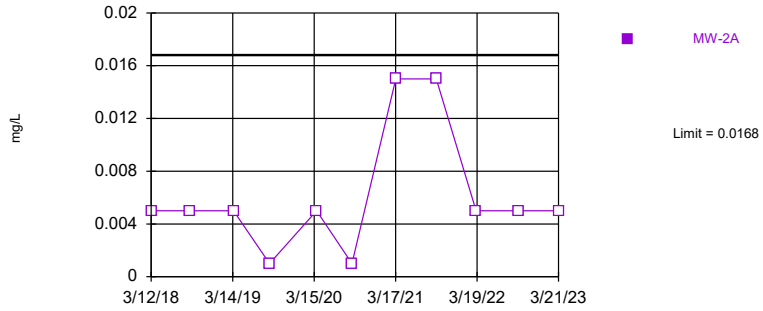
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

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 11 background values. 81.82% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Selenium Total Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis

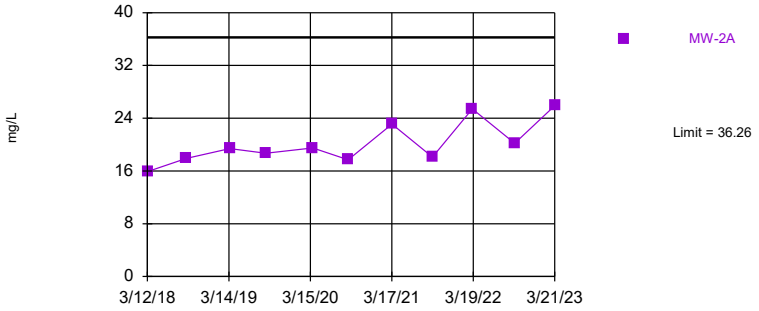
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=17.87, Std. Dev.=5.586, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9376, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Sodium Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis

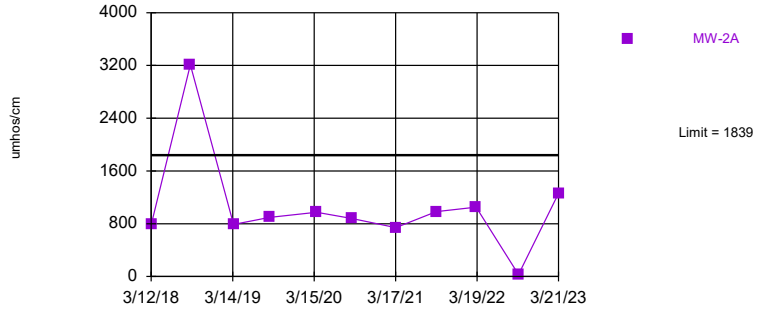
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1268, Std. Dev.=173.6, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Specific conductivity Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analy

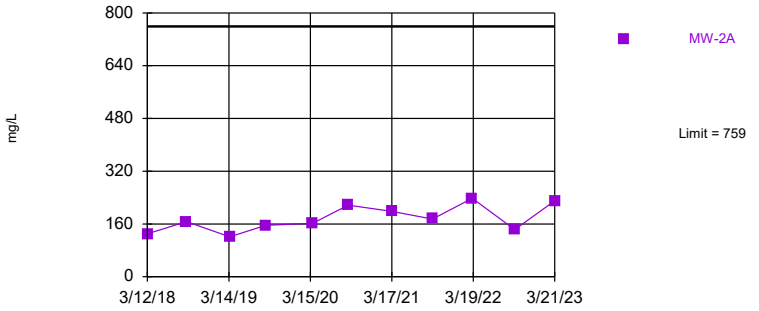
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=333.1, Std. Dev.=129.4, n=11, 9.091% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8091, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Sulfate Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis

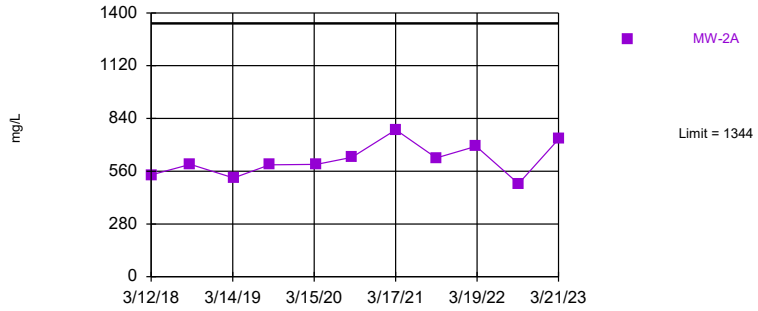
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=973.5, Std. Dev.=112.7, n=11. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9617, critical = 0.792. Kappa = 3.292 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical An

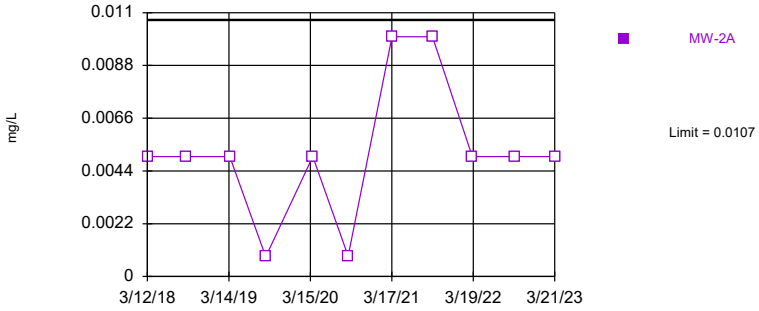
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 11 background values. 81.82% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Vanadium Total Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis

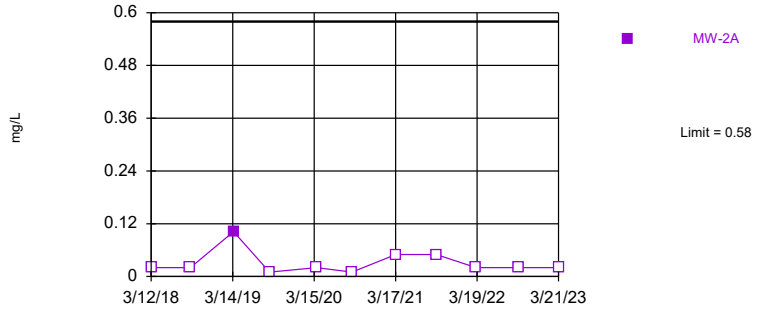
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 11 background values. 81.82% NDs. Annual per-constituent alpha = 0.1415. Individual comparison alpha = 0.01012 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Zinc Total Analysis Run 11/22/2023 11:26 AM View: Shallow Zone Statistical Analysis

Continental Cement Data: Import 1

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 11:27 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Aluminum Total (mg/L)	MW-2A	5.189	n/a	3/21/2023	0.05ND	No	11	36.36	x^(1/3)	0.000...	Param Inter 1 of 2
Arsenic Total (mg/L)	MW-2A	0.01	n/a	3/21/2023	0.002ND	No	11	81.82	n/a	0.01012	NP Inter (NDs) 1 of 2
Barium Total (mg/L)	MW-2A	0.528	n/a	3/21/2023	0.0587	No	11	0	n/a	0.01012	NP Inter (normality) ...
Bicarbonate Alkalinity (mg/l)	MW-2A	601.8	248.2	3/21/2023	358	No	4	0	No	0.000...	Param Inter 1 of 2
Boron Total (mg/L)	MW-2A	0.32	n/a	3/21/2023	0.113	No	11	72.73	n/a	0.01012	NP Inter (NDs) 1 of 2
Bromate (ug/L)	MW-2A	6	n/a	9/22/2022	5ND	No	5	80	n/a	0.02801	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-2A	0.005	n/a	3/21/2023	0.0001ND	No	11	81.82	n/a	0.01012	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-2A	340	n/a	3/21/2023	149	No	11	0	n/a	0.01012	NP Inter (normality) ...
Carbonate Alkalinity (mg/l)	MW-2A	31.05	n/a	3/21/2023	Tk*=5	No	4	100	n/a	0.01	Poisson Inter (NDs)
Chloride (mg/L)	MW-2A	19.16	n/a	3/21/2023	0.5ND	No	11	0	No	0.000...	Param Inter 1 of 2
Chromium Total (mg/L)	MW-2A	0.108	n/a	3/21/2023	0.005ND	No	11	81.82	n/a	0.01012	NP Inter (NDs) 1 of 2
Cobalt Total (mg/L)	MW-2A	0.03077	n/a	3/21/2023	0.00091	No	11	45.45	sqrt(x)	0.000...	Param Inter 1 of 2
Copper Total (mg/L)	MW-2A	0.155	n/a	3/21/2023	0.005ND	No	11	72.73	n/a	0.01012	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-2A	0.6294	n/a	3/21/2023	0.1ND	No	11	45.45	No	0.000...	Param Inter 1 of 2
Lead Total (mg/L)	MW-2A	0.01	n/a	3/21/2023	0.0005ND	No	11	54.55	n/a	0.01012	NP Inter (NDs) 1 of 2
Lithium Total (mg/L)	**MW-2A**	**0.0113**	**n/a**	**3/21/2023**	**0.0136**	**Yes**	**11**	**72.73**	**n/a**	**0.01012**	**NP Inter (NDs) 1 of 2**
Magnesium (mg/L)	MW-2A	136.5	n/a	3/21/2023	49.3	No	11	0	No	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-2A	2.941	n/a	3/21/2023	0.0934	No	11	0	x^(1/3)	0.000...	Param Inter 1 of 2
Molybdenum Total (mg/L)	MW-2A	0.02	n/a	3/21/2023	0.002ND	No	11	72.73	n/a	0.01012	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-2A	0.128	n/a	3/21/2023	0.00535	No	11	63.64	n/a	0.01012	NP Inter (NDs) 1 of 2
Nitrate (mg/L)	MW-2A	1	n/a	3/21/2023	0.366	No	11	81.82	n/a	0.01012	NP Inter (NDs) 1 of 2
Nitrite (mg/L)	MW-2A	0.1	n/a	3/21/2023	0.1ND	No	7	85.71	n/a	0.01879	NP Inter (NDs) 1 of 2
pH (n/a)	MW-2A	8.756	5.624	3/21/2023	6.95	No	11	0	No	0.000...	Param Inter 1 of 2
Phosphorus (mg/L)	MW-2A	0.527	n/a	3/21/2023	0.1ND	No	11	72.73	n/a	0.01012	NP Inter (NDs) 1 of 2
Potassium (mg/L)	MW-2A	7.999	n/a	3/21/2023	4.82	No	11	0	No	0.000...	Param Inter 1 of 2
Selenium Total (mg/L)	MW-2A	0.0168	n/a	3/21/2023	0.005ND	No	11	81.82	n/a	0.01012	NP Inter (NDs) 1 of 2
Sodium (mg/L)	MW-2A	36.26	n/a	3/21/2023	25.9	No	11	0	No	0.000...	Param Inter 1 of 2
Specific conductivity (umhos/cm)	MW-2A	1839	n/a	3/21/2023	1259	No	11	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-2A	759	n/a	3/21/2023	230	No	11	9.091	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-2A	1344	n/a	3/21/2023	730	No	11	0	No	0.000...	Param Inter 1 of 2
Vanadium Total (mg/L)	MW-2A	0.0107	n/a	3/21/2023	0.005ND	No	11	81.82	n/a	0.01012	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-2A	0.58	n/a	3/21/2023	0.02ND	No	11	81.82	n/a	0.01012	NP Inter (NDs) 1 of 2

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Summary Report

Constituent: Aluminum Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 33%
Wells = 1
Minimum Value = 0.012
Maximum Value = 2.96
Mean Value = 0.4253
Median Value = 0.1213
Standard Deviation = 0.8318
Coefficient of Variation = 1.956
Skewness = 2.64

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	33%	0.012	2.96	0.4253	0.1213	0.8318	1.956	2.64

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Summary Report

Constituent: Antimony Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 100%
Wells = 1
Minimum Value = 0.00051
Maximum Value = 0.015
Mean Value = 0.003587
Median Value = 0.0015
Standard Deviation = 0.005361
Coefficient of Variation = 1.495
Skewness = 1.744

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	100%	0.00051	0.015	0.003587	0.0015	0.005361	1.495	1.744

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Summary Report

Constituent: Arsenic Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 83%
Wells = 1
Minimum Value = 0.00088
Maximum Value = 0.01
Mean Value = 0.003606
Median Value = 0.002
Standard Deviation = 0.003364
Coefficient of Variation = 0.9329
Skewness = 1.255

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	83%	0.00088	0.01	0.003606	0.002	0.003364	0.9329	1.255

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Summary Report

Constituent: Barium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 0.0491
Maximum Value = 0.528
Mean Value = 0.1112
Median Value = 0.0649
Standard Deviation = 0.134
Coefficient of Variation = 1.205
Skewness = 2.811

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	0.0491	0.528	0.1112	0.0649	0.134	1.205	2.811

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Summary Report

Constituent: Beryllium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 91%
Wells = 1
Minimum Value = 0.00027
Maximum Value = 0.0016
Mean Value = 0.0009283
Median Value = 0.001
Standard Deviation = 0.0003522
Coefficient of Variation = 0.3793
Skewness = -0.5747

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	91%	0.00027	0.0016	0.0009283	0.001	0.0003522	0.3793	-0.5747

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Summary Report

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 9/26/2023, a summary of the selected data set:

Observations = 5
NDs = 0%
Wells = 1
Minimum Value = 394
Maximum Value = 454
Mean Value = 418.8
Median Value = 417
Standard Deviation = 21.83
Coefficient of Variation = 0.05213
Skewness = 0.7529

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	5	0%	394	454	418.8	417	21.83	0.05213	0.7529

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Summary Report

Constituent: Boron Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 66%
Wells = 1
Minimum Value = 0.1
Maximum Value = 0.32
Mean Value = 0.1609
Median Value = 0.142
Standard Deviation = 0.06721
Coefficient of Variation = 0.4177
Skewness = 1.02

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	66%	0.1	0.32	0.1609	0.142	0.06721	0.4177	1.02

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Summary Report

Constituent: Bromate Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/18/2021 and 9/26/2023, a summary of the selected data set:

Observations = 6
NDs = 83%
Wells = 1
Minimum Value = 5
Maximum Value = 1000
Mean Value = 171
Median Value = 5
Standard Deviation = 406.1
Coefficient of Variation = 2.375
Skewness = 1.789

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	6	83%	5	1000	171	5	406.1	2.375	1.789

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Summary Report

Constituent: Cadmium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 83%
Wells = 1
Minimum Value = 0.000055
Maximum Value = 0.005
Mean Value = 0.001044
Median Value = 0.000174
Standard Deviation = 0.00186
Coefficient of Variation = 1.782
Skewness = 1.739

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	83%	0.000055	0.005	0.001044	0.000174	0.00186	1.782	1.739

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Summary Report

Constituent: Calcium Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 140
Maximum Value = 340
Mean Value = 191.4
Median Value = 185
Standard Deviation = 50.68
Coefficient of Variation = 0.2648
Skewness = 2.204

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	140	340	191.4	185	50.68	0.2648	2.204

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Summary Report

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 9/26/2023, a summary of the selected data set:

Observations = 5
NDs = 100%
Wells = 1
Minimum Value = 5
Maximum Value = 20
Mean Value = 10
Median Value = 10
Standard Deviation = 6.124
Coefficient of Variation = 0.6124
Skewness = 0.9129

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	5	100%	5	20	10	10	6.124	0.6124	0.9129

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Summary Report

Constituent: Chloride Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 5.9
Maximum Value = 14.2
Mean Value = 10.86
Median Value = 11.4
Standard Deviation = 2.758
Coefficient of Variation = 0.2539
Skewness = -0.5514

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	5.9	14.2	10.86	11.4	2.758	0.2539	-0.5514

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Summary Report

Constituent: Chromium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 83%
Wells = 1
Minimum Value = 0.0011
Maximum Value = 0.108
Mean Value = 0.01309
Median Value = 0.005
Standard Deviation = 0.02991
Coefficient of Variation = 2.286
Skewness = 3.006

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	83%	0.0011	0.108	0.01309	0.005	0.02991	2.286	3.006

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Summary Report

Constituent: Cobalt Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 41%
Wells = 1
Minimum Value = 0.000272
Maximum Value = 0.0213
Mean Value = 0.003758
Median Value = 0.00176
Standard Deviation = 0.005838
Coefficient of Variation = 1.554
Skewness = 2.486

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	41%	0.000272	0.0213	0.003758	0.00176	0.005838	1.554	2.486

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Summary Report

Constituent: Copper Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 75%
Wells = 1
Minimum Value = 0.0015
Maximum Value = 0.155
Mean Value = 0.01975
Median Value = 0.005
Standard Deviation = 0.04296
Coefficient of Variation = 2.176
Skewness = 2.929

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	75%	0.0015	0.155	0.01975	0.005	0.04296	2.176	2.929

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Summary Report

Constituent: Fluoride Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 50%
Wells = 1
Minimum Value = 0.045
Maximum Value = 0.5
Mean Value = 0.22
Median Value = 0.215
Standard Deviation = 0.1182
Coefficient of Variation = 0.5373
Skewness = 0.8152

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	50%	0.045	0.5	0.22	0.215	0.1182	0.5373	0.8152

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Summary Report

Constituent: Lead Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 58%
Wells = 1
Minimum Value = 0.00011
Maximum Value = 0.01
Mean Value = 0.002977
Median Value = 0.000884
Standard Deviation = 0.004009
Coefficient of Variation = 1.347
Skewness = 1.135

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	58%	0.00011	0.01	0.002977	0.000884	0.004009	1.347	1.135

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Summary Report

Constituent: Lithium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 75%
Wells = 1
Minimum Value = 0.0049
Maximum Value = 0.0113
Mean Value = 0.009484
Median Value = 0.01
Standard Deviation = 0.001657
Coefficient of Variation = 0.1748
Skewness = -1.996

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	75%	0.0049	0.0113	0.009484	0.01	0.001657	0.1748	-1.996

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Summary Report

Constituent: Magnesium Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 54.1
Maximum Value = 117
Mean Value = 78.88
Median Value = 78.65
Standard Deviation = 17.23
Coefficient of Variation = 0.2184
Skewness = 0.765

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	54.1	117	78.88	78.65	17.23	0.2184	0.765

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Summary Report

Constituent: Manganese Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 0.00669
Maximum Value = 1.79
Mean Value = 0.2505
Median Value = 0.0858
Standard Deviation = 0.4973
Coefficient of Variation = 1.985
Skewness = 2.769

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	0.00669	1.79	0.2505	0.0858	0.4973	1.985	2.769

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Summary Report

Constituent: Molybdenum Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 75%
Wells = 1
Minimum Value = 0.0011
Maximum Value = 0.02
Mean Value = 0.006153
Median Value = 0.002
Standard Deviation = 0.008046
Coefficient of Variation = 1.308
Skewness = 1.156

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	75%	0.0011	0.02	0.006153	0.002	0.008046	1.308	1.156

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Summary Report

Constituent: Nickel Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 66%
Wells = 1
Minimum Value = 0.00232
Maximum Value = 0.128
Mean Value = 0.01527
Median Value = 0.005
Standard Deviation = 0.03552
Coefficient of Variation = 2.325
Skewness = 3.01

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	66%	0.00232	0.128	0.01527	0.005	0.03552	2.325	3.01

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Summary Report

Constituent: Nitrate Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 83%
Wells = 1
Minimum Value = 0.049
Maximum Value = 1
Mean Value = 0.1844
Median Value = 0.1
Standard Deviation = 0.2594
Coefficient of Variation = 1.407
Skewness = 2.913

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	83%	0.049	1	0.1844	0.1	0.2594	1.407	2.913

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Summary Report

Constituent: Nitrite Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/26/2020 and 9/26/2023, a summary of the selected data set:

Observations = 8
NDs = 87%
Wells = 1
Minimum Value = 0.039
Maximum Value = 0.2
Mean Value = 0.1047
Median Value = 0.1
Standard Deviation = 0.04399
Coefficient of Variation = 0.4201
Skewness = 1.042

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	8	87%	0.039	0.2	0.1047	0.1	0.04399	0.4201	1.042

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Summary Report

Constituent: pH Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 6.53
Maximum Value = 8.22
Mean Value = 7.164
Median Value = 7.05
Standard Deviation = 0.4623
Coefficient of Variation = 0.06453
Skewness = 0.9165

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	6.53	8.22	7.164	7.05	0.4623	0.06453	0.9165

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Summary Report

Constituent: Phosphorus Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 75%
Wells = 1
Minimum Value = 0.039
Maximum Value = 0.527
Mean Value = 0.132
Median Value = 0.1
Standard Deviation = 0.1258
Coefficient of Variation = 0.9529
Skewness = 2.888

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	75%	0.039	0.527	0.132	0.1	0.1258	0.9529	2.888

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Summary Report

Constituent: Potassium Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 4.29
Maximum Value = 6.95
Mean Value = 5.209
Median Value = 5.055
Standard Deviation = 0.8533
Coefficient of Variation = 0.1638
Skewness = 0.7366

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	4.29	6.95	5.209	5.055	0.8533	0.1638	0.7366

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Summary Report

Constituent: Selenium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 83%
Wells = 1
Minimum Value = 0.001
Maximum Value = 0.0168
Mean Value = 0.006156
Median Value = 0.005
Standard Deviation = 0.004811
Coefficient of Variation = 0.7816
Skewness = 1.378

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	83%	0.001	0.0168	0.006156	0.005	0.004811	0.7816	1.378

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Summary Report

Constituent: Silver Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 100%
Wells = 1
Minimum Value = 0.00037
Maximum Value = 0.007
Mean Value = 0.001895
Median Value = 0.001
Standard Deviation = 0.002397
Coefficient of Variation = 1.265
Skewness = 1.747

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	100%	0.00037	0.007	0.001895	0.001	0.002397	1.265	1.747

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Summary Report

Constituent: Sodium Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 10.1
Maximum Value = 26.4
Mean Value = 17.39
Median Value = 16.2
Standard Deviation = 5.581
Coefficient of Variation = 0.3209
Skewness = 0.3898

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	10.1	26.4	17.39	16.2	5.581	0.3209	0.3898

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Summary Report

Constituent: Specific conductivity Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 960
Maximum Value = 1538
Mean Value = 1251
Median Value = 1222
Standard Deviation = 175.2
Coefficient of Variation = 0.14
Skewness = 0.2121

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	960	1538	1251	1222	175.2	0.14	0.2121

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Summary Report

Constituent: Sulfate Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 8%
Wells = 1
Minimum Value = 0.5
Maximum Value = 463
Mean Value = 330.8
Median Value = 361.5
Standard Deviation = 123.6
Coefficient of Variation = 0.3737
Skewness = -1.61

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	8%	0.5	463	330.8	361.5	123.6	0.3737	-1.61

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Summary Report

Constituent: Thallium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 100%
Wells = 1
Minimum Value = 0.00026
Maximum Value = 0.02
Mean Value = 0.004044
Median Value = 0.001
Standard Deviation = 0.007458
Coefficient of Variation = 1.844
Skewness = 1.783

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	100%	0.00026	0.02	0.004044	0.001	0.007458	1.844	1.783

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Summary Report

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 1
Minimum Value = 740
Maximum Value = 1140
Mean Value = 965.8
Median Value = 957.5
Standard Deviation = 110.6
Coefficient of Variation = 0.1146
Skewness = -0.2729

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	0%	740	1140	965.8	957.5	110.6	0.1146	-0.2729

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Summary Report

Constituent: Vanadium Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 83%
Wells = 1
Minimum Value = 0.00085
Maximum Value = 0.0107
Mean Value = 0.005746
Median Value = 0.005
Standard Deviation = 0.003012
Coefficient of Variation = 0.5242
Skewness = 0.4096

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	83%	0.00085	0.0107	0.005746	0.005	0.003012	0.5242	0.4096

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Summary Report

Constituent: Zinc Total Analysis Run 11/22/2023 11:48 AM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 12
NDs = 83%
Wells = 1
Minimum Value = 0.01
Maximum Value = 0.58
Mean Value = 0.07008
Median Value = 0.02
Standard Deviation = 0.1611
Coefficient of Variation = 2.299
Skewness = 2.981

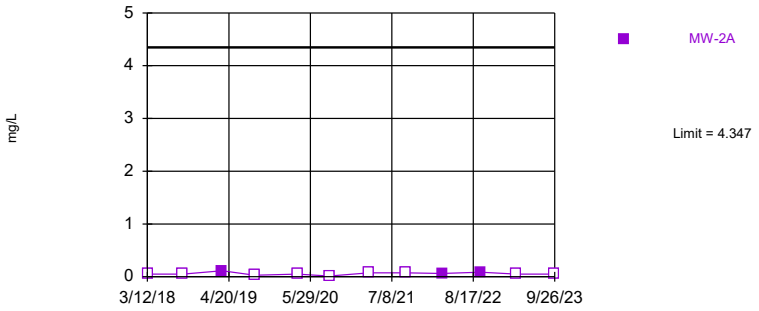
Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-1B (bg)	12	83%	0.01	0.58	0.07008	0.02	0.1611	2.299	2.981

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.5848, Std. Dev.=0.3316, n=12, 33.33% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8252, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

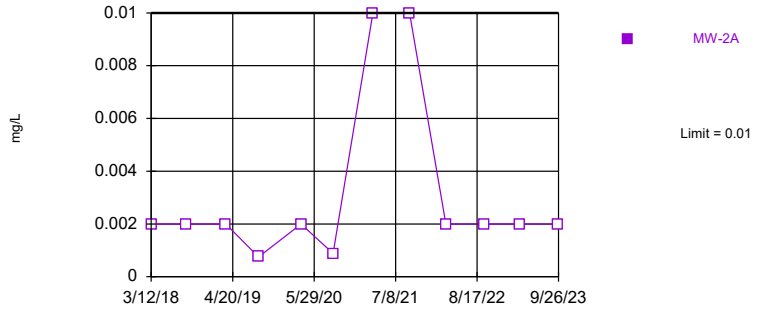
Constituent: Aluminum Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

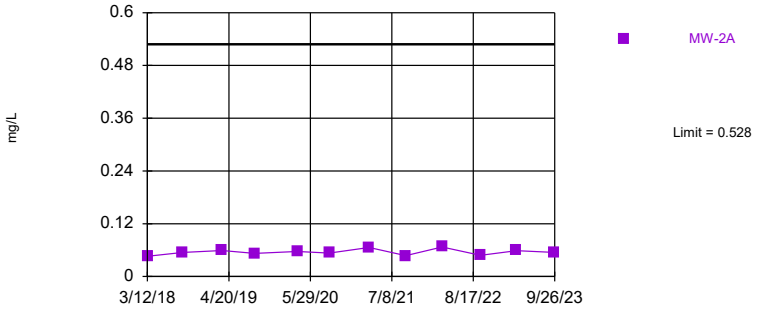
Constituent: Arsenic Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell 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 12 background values. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

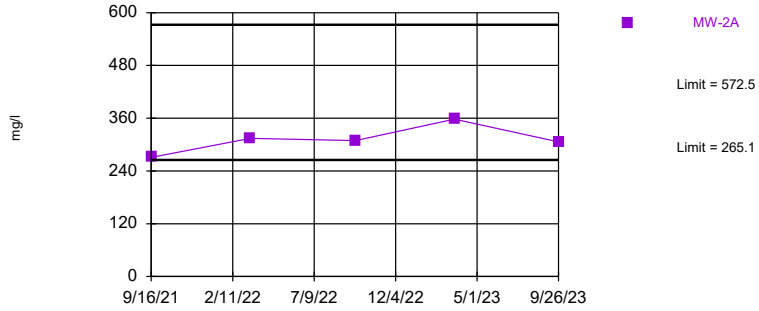
Constituent: Barium Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=418.8, Std. Dev.=21.83, n=5. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8851, critical = 0.686. Kappa = 7.039 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.00009755. Assumes 14 future values.

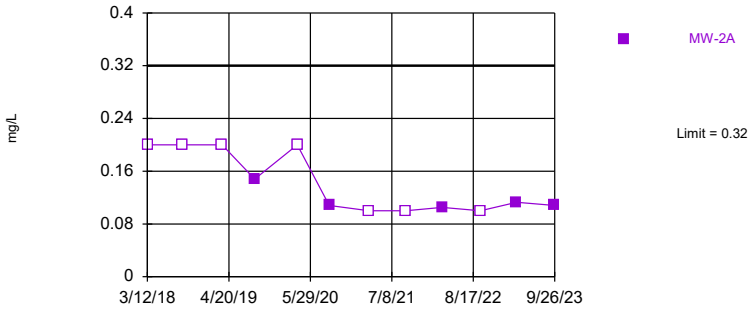
Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Ana
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 12 background values. 66.67% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

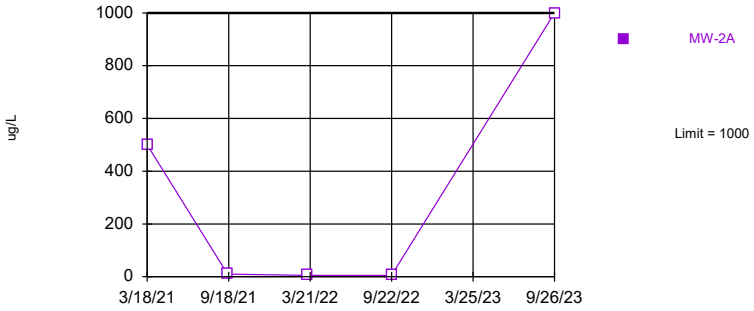
Constituent: Boron Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 6 background values. 83.33% NDs. Annual per-constituent alpha = 0.2859. Individual comparison alpha = 0.0222 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

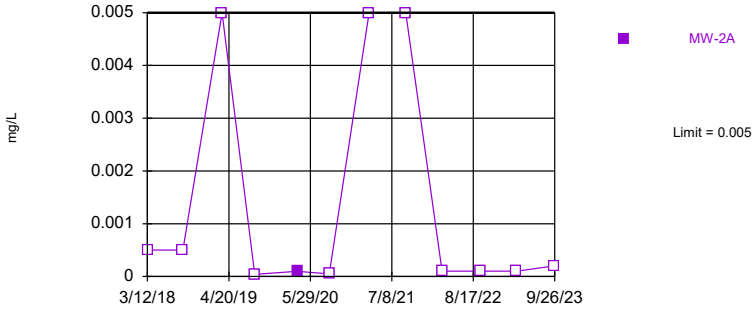
Constituent: Bromate Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

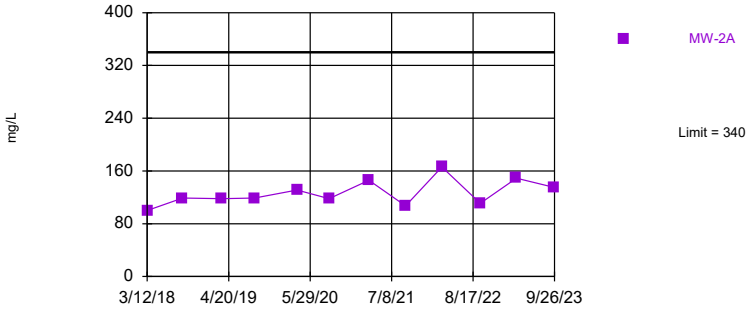
Constituent: Cadmium Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Non-parametric



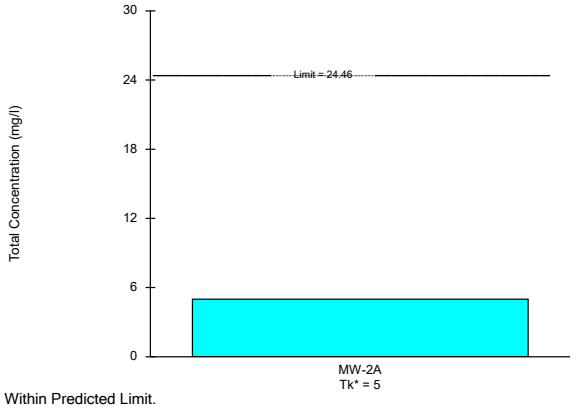
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Calcium Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1B,MW-2A



Within Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 100% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

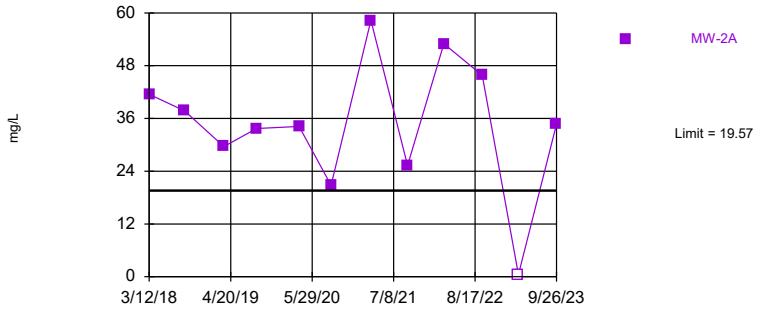
Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analy
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Exceeds Limit: MW-2A

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=10.86, Std. Dev.=2.758, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9033, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

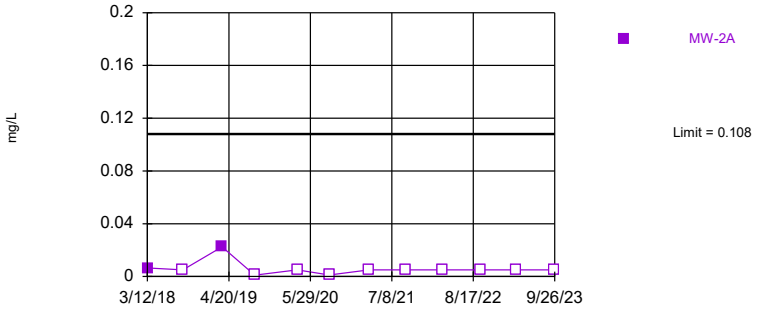
Constituent: Chloride Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

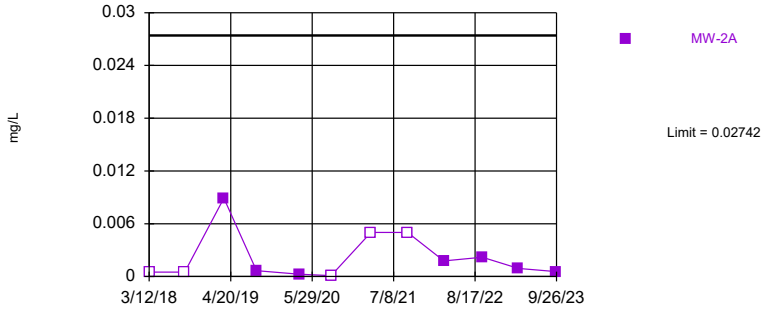
Constituent: Chromium Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=0.05038, Std. Dev.=0.03647, n=12, 41.67% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8054, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

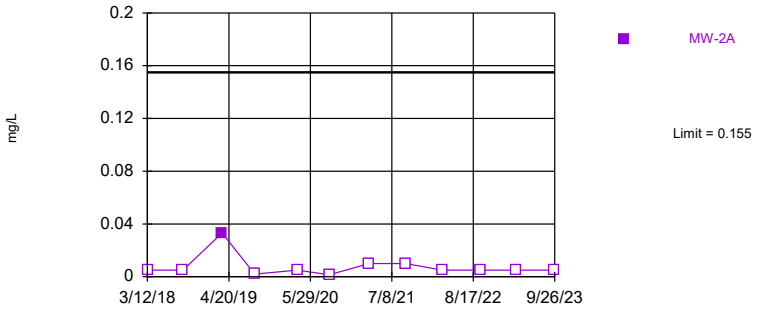
Constituent: Cobalt Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 12 background values. 75% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

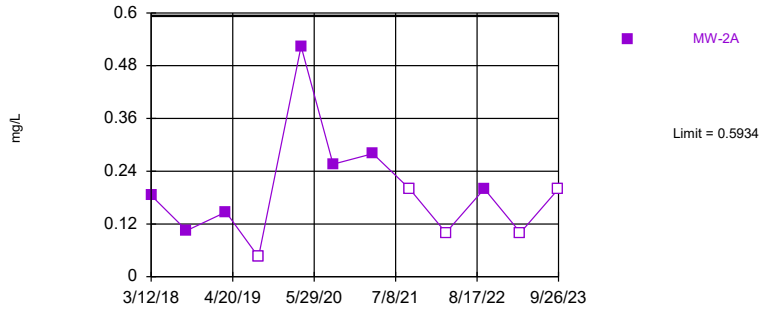
Constituent: Copper Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.22, Std. Dev.=0.1182, n=12, 50% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9243, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

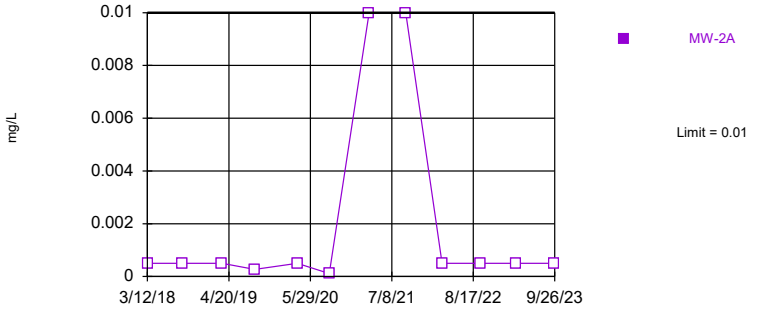
Constituent: Fluoride Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 12 background values. 58.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

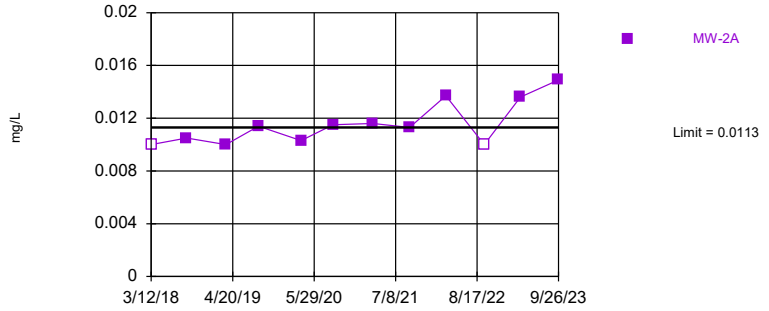
Constituent: Lead Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-2A

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

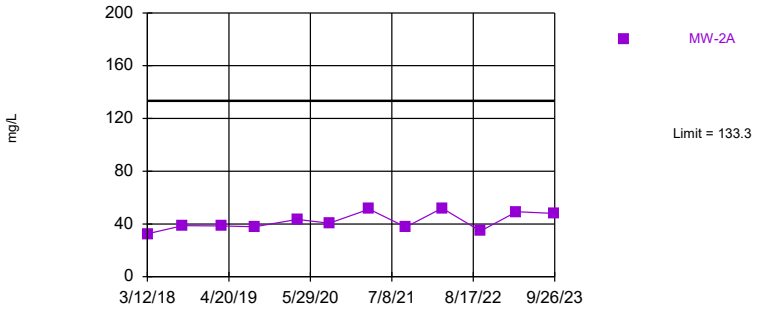
Constituent: Lithium Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=78.88, Std. Dev.=17.23, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9408, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Magnesium Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis

Continental Cement Data: Import 1

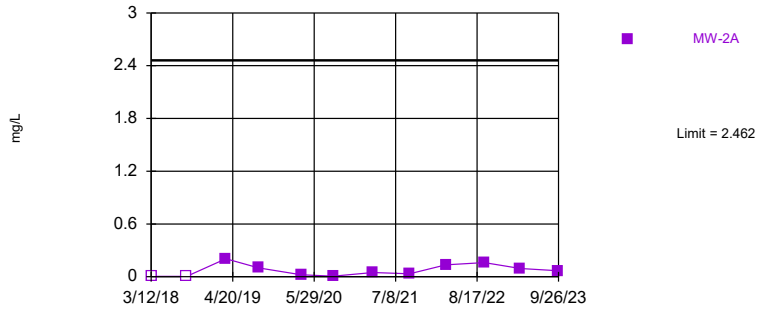
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.4973, Std. Dev.=0.27, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8333, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Manganese Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis

Continental Cement Data: Import 1

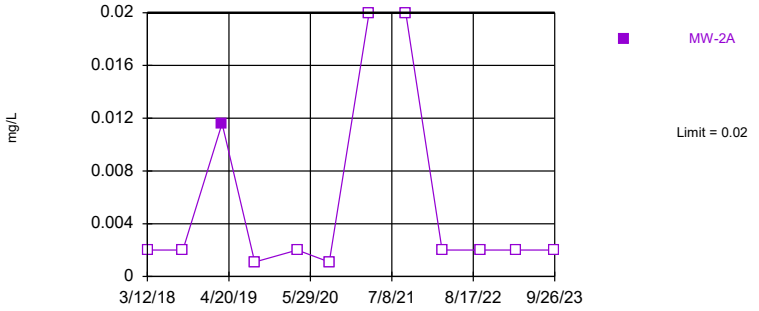
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

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 12 background values. 75% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Molybdenum Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysi

Continental Cement Data: Import 1

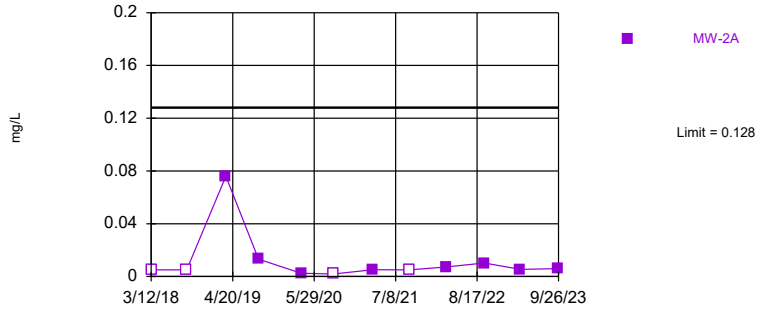
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

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 12 background values. 66.67% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Nickel Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis

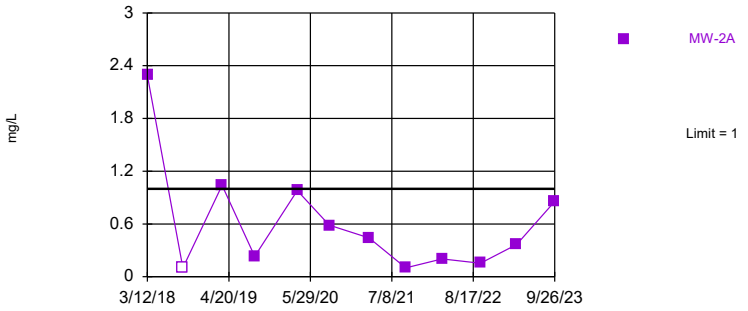
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

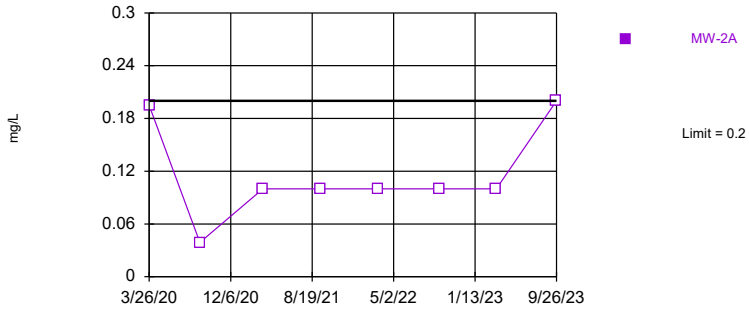
Constituent: Nitrate Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 8 background values. 87.5% NDs. Annual per-constituent alpha = 0.2094. Individual comparison alpha = 0.01554 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

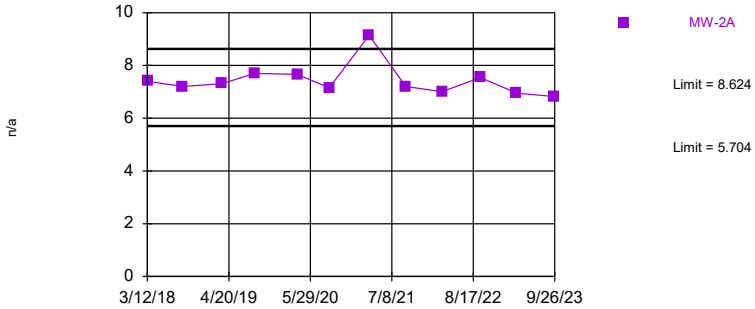
Constituent: Nitrite Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=7.164, Std. Dev.=0.4623, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9081, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.00009755. Assumes 14 future values.

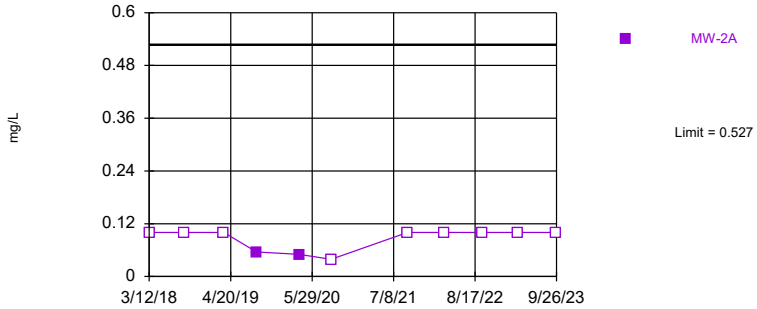
Constituent: pH Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 12 background values. 75% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

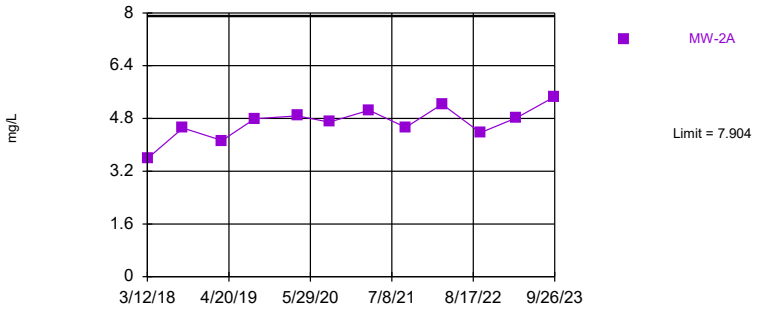
Constituent: Phosphorus Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.209, Std. Dev.=0.8533, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9119, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

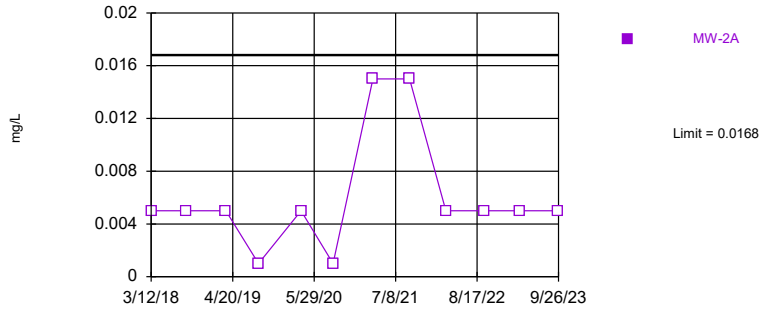
Constituent: Potassium Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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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 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

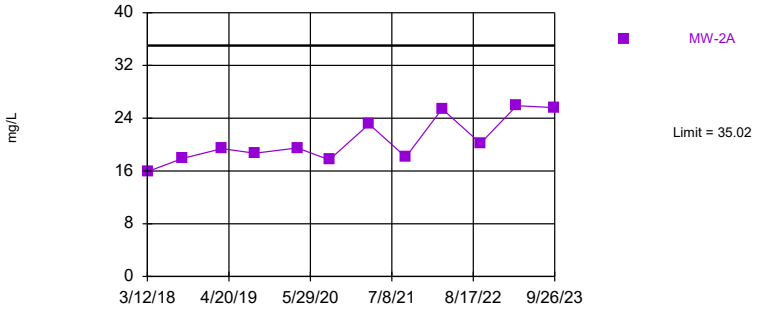
Constituent: Selenium Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=17.39, Std. Dev.=5.581, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9293, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

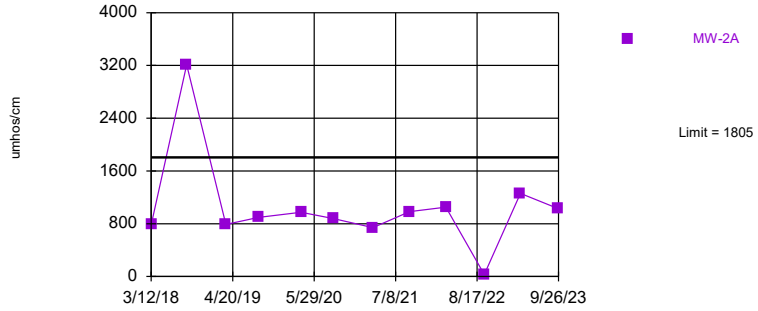
Constituent: Sodium Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1251, Std. Dev.=175.2, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9655, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

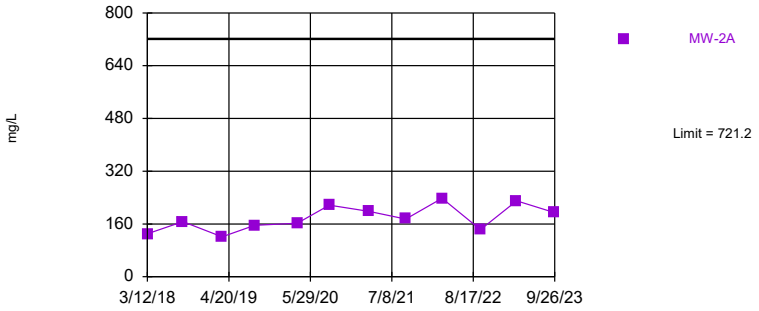
Constituent: Specific conductivity Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analy
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=330.8, Std. Dev.=123.6, n=12, 8.333% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8259, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Sulfate Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis

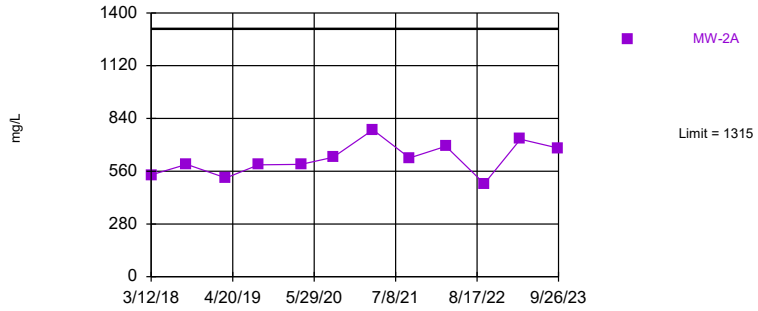
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=965.8, Std. Dev.=110.6, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9728, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Assumes 14 future values.

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical An

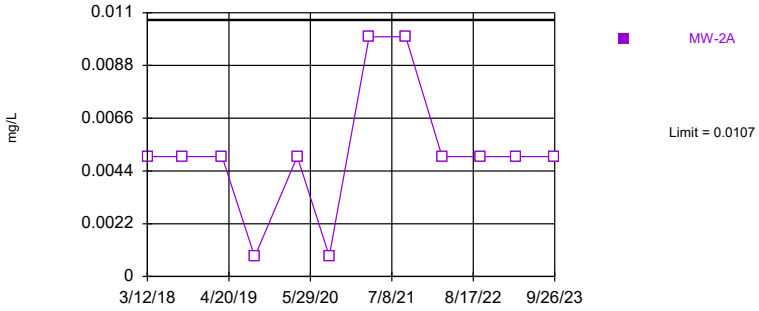
Continental Cement Data: Import 1

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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 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Vanadium Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis

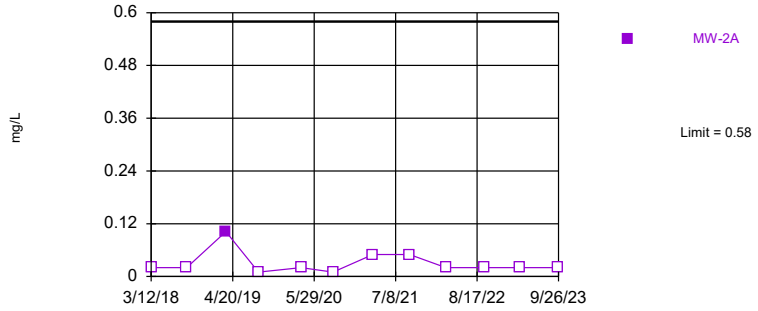
Continental Cement Data: Import 1

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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 12 background values. 83.33% NDs. Annual per-constituent alpha = 0.1241. Individual comparison alpha = 0.008795 (1 of 2). Assumes 14 future values. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Zinc Total Analysis Run 11/22/2023 12:05 PM View: Shallow Zone Statistical Analysis

Continental Cement Data: Import 1

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 12:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Aluminum Total (mg/L)	MW-2A	4.347	n/a	9/26/2023	0.05ND	No	12	33.33	x^(1/3)	0.000...	Param Inter 1 of 2
Arsenic Total (mg/L)	MW-2A	0.01	n/a	9/26/2023	0.002ND	No	12	83.33	n/a	0.008795	NP Inter (NDs) 1 of 2
Barium Total (mg/L)	MW-2A	0.528	n/a	9/26/2023	0.0545	No	12	0	n/a	0.008795	NP Inter (normality) ...
Bicarbonate Alkalinity (mg/l)	MW-2A	572.5	265.1	9/26/2023	306	No	5	0	No	0.000...	Param Inter 1 of 2
Boron Total (mg/L)	MW-2A	0.32	n/a	9/26/2023	0.108	No	12	66.67	n/a	0.008795	NP Inter (NDs) 1 of 2
Bromate (ug/L)	MW-2A	1000	n/a	9/26/2023	1000ND	No	6	83.33	n/a	0.0222	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-2A	0.005	n/a	9/26/2023	0.0002ND	No	12	83.33	n/a	0.008795	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-2A	340	n/a	9/26/2023	135	No	12	0	n/a	0.008795	NP Inter (normality) ...
Carbonate Alkalinity (mg/l)	MW-2A	24.46	n/a	9/26/2023	Tk*=5	No	5	100	n/a	0.01	Poisson Inter (NDs)
Chloride (mg/L)	**MW-2A**	**19.57**	**n/a**	**9/26/2023**	**34.7**	**Yes**	**12**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chromium Total (mg/L)	MW-2A	0.108	n/a	9/26/2023	0.005ND	No	12	83.33	n/a	0.008795	NP Inter (NDs) 1 of 2
Cobalt Total (mg/L)	MW-2A	0.02742	n/a	9/26/2023	0.000551	No	12	41.67	sqrt(x)	0.000...	Param Inter 1 of 2
Copper Total (mg/L)	MW-2A	0.155	n/a	9/26/2023	0.005ND	No	12	75	n/a	0.008795	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-2A	0.5934	n/a	9/26/2023	0.2ND	No	12	50	No	0.000...	Param Inter 1 of 2
Lead Total (mg/L)	MW-2A	0.01	n/a	9/26/2023	0.0005ND	No	12	58.33	n/a	0.008795	NP Inter (NDs) 1 of 2
Lithium Total (mg/L)	**MW-2A**	**0.0113**	**n/a**	**9/26/2023**	**0.0149**	**Yes**	**12**	**75**	**n/a**	**0.008795**	**NP Inter (NDs) 1 of 2**
Magnesium (mg/L)	MW-2A	133.3	n/a	9/26/2023	47.9	No	12	0	No	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-2A	2.462	n/a	9/26/2023	0.0686	No	12	0	x^(1/3)	0.000...	Param Inter 1 of 2
Molybdenum Total (mg/L)	MW-2A	0.02	n/a	9/26/2023	0.002ND	No	12	75	n/a	0.008795	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-2A	0.128	n/a	9/26/2023	0.00599	No	12	66.67	n/a	0.008795	NP Inter (NDs) 1 of 2
Nitrate (mg/L)	MW-2A	1	n/a	9/26/2023	0.856	No	12	83.33	n/a	0.008795	NP Inter (NDs) 1 of 2
Nitrite (mg/L)	MW-2A	0.2	n/a	9/26/2023	0.2ND	No	8	87.5	n/a	0.01554	NP Inter (NDs) 1 of 2
pH (n/a)	MW-2A	8.624	5.704	9/26/2023	6.82	No	12	0	No	0.000...	Param Inter 1 of 2
Phosphorus (mg/L)	MW-2A	0.527	n/a	9/26/2023	0.1ND	No	12	75	n/a	0.008795	NP Inter (NDs) 1 of 2
Potassium (mg/L)	MW-2A	7.904	n/a	9/26/2023	5.46	No	12	0	No	0.000...	Param Inter 1 of 2
Selenium Total (mg/L)	MW-2A	0.0168	n/a	9/26/2023	0.005ND	No	12	83.33	n/a	0.008795	NP Inter (NDs) 1 of 2
Sodium (mg/L)	MW-2A	35.02	n/a	9/26/2023	25.6	No	12	0	No	0.000...	Param Inter 1 of 2
Specific conductivity (umhos/cm)	MW-2A	1805	n/a	9/26/2023	1028	No	12	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-2A	721.2	n/a	9/26/2023	194	No	12	8.333	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-2A	1315	n/a	9/26/2023	682	No	12	0	No	0.000...	Param Inter 1 of 2
Vanadium Total (mg/L)	MW-2A	0.0107	n/a	9/26/2023	0.005ND	No	12	83.33	n/a	0.008795	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-2A	0.58	n/a	9/26/2023	0.02ND	No	12	83.33	n/a	0.008795	NP Inter (NDs) 1 of 2

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Summary Report

Constituent: Aluminum Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 34%
Wells = 3
Minimum Value = 0.012
Maximum Value = 4.04
Mean Value = 0.3875
Median Value = 0.08505
Standard Deviation = 0.7961
Coefficient of Variation = 2.055
Skewness = 3.479

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	54%	0.012	0.517	0.1042	0.05	0.1396	1.339	2.652
MW-13 (bg)	10	0%	0.0565	4.04	0.9656	0.4175	1.256	1.301	1.635
MW-15 (bg)	11	45%	0.0296	0.541	0.1453	0.05	0.1949	1.342	1.549

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Summary Report

Constituent: Antimony Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 87%
Wells = 3
Minimum Value = 0.00051
Maximum Value = 0.015
Mean Value = 0.00356
Median Value = 0.001655
Standard Deviation = 0.005055
Coefficient of Variation = 1.42
Skewness = 1.811

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	72%	0.00053	0.015	0.003963	0.00168	0.005492	1.386	1.602
MW-13 (bg)	10	90%	0.00053	0.015	0.002928	0.0015	0.00436	1.489	2.419
MW-15 (bg)	11	100%	0.00051	0.015	0.003731	0.001	0.005598	1.501	1.613

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Summary Report

Constituent: Arsenic Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 93%
Wells = 3
Minimum Value = 0.00075
Maximum Value = 0.01
Mean Value = 0.003276
Median Value = 0.002
Standard Deviation = 0.003163
Coefficient of Variation = 0.9656
Skewness = 1.57

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	100%	0.00075	0.01	0.003239	0.002	0.003375	1.042	1.572
MW-13 (bg)	10	80%	0.0013	0.01	0.003356	0.002	0.003022	0.9004	1.564
MW-15 (bg)	11	100%	0.00075	0.01	0.003239	0.002	0.003375	1.042	1.572

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Summary Report

Constituent: Barium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 0.0436
Maximum Value = 0.161
Mean Value = 0.0948
Median Value = 0.08515
Standard Deviation = 0.03679
Coefficient of Variation = 0.388
Skewness = 0.5264

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	0.089	0.161	0.1333	0.145	0.02613	0.196	-0.6975
MW-13 (bg)	10	0%	0.0436	0.136	0.08615	0.0852	0.02891	0.3356	0.1663
MW-15 (bg)	11	0%	0.0552	0.0706	0.06413	0.0635	0.004119	0.06423	-0.4867

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Summary Report

Constituent: Beryllium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 96%
Wells = 3
Minimum Value = 0.00027
Maximum Value = 0.004
Mean Value = 0.0009569
Median Value = 0.001
Standard Deviation = 0.0006257
Coefficient of Variation = 0.6539
Skewness = 3.51

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	90%	0.00027	0.001	0.0008673	0.001	0.0002953	0.3405	-1.65
MW-13 (bg)	10	100%	0.00027	0.004	0.001154	0.001	0.001045	0.9056	2.221
MW-15 (bg)	11	100%	0.00027	0.001	0.0008673	0.001	0.0002953	0.3405	-1.65

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Summary Report

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 3/21/2023, a summary of the selected data set:

Observations = 12
NDs = 0%
Wells = 3
Minimum Value = 89
Maximum Value = 409
Mean Value = 320.8
Median Value = 366.5
Standard Deviation = 108.6
Coefficient of Variation = 0.3384
Skewness = -1.188

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	4	0%	154	402	318.3	358.5	111.7	0.3509	-1.02
MW-13 (bg)	4	0%	89	365	249	271	127.1	0.5105	-0.3666
MW-15 (bg)	4	0%	371	409	395.3	400.5	18.04	0.04565	-0.5959

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Summary Report

Constituent: Boron Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 12%
Wells = 3
Minimum Value = 0.101
Maximum Value = 1.04
Mean Value = 0.4841
Median Value = 0.3915
Standard Deviation = 0.3341
Coefficient of Variation = 0.69
Skewness = 0.4917

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	27%	0.101	0.202	0.1785	0.194	0.03291	0.1843	-1.537
MW-13 (bg)	10	10%	0.126	0.476	0.3459	0.3915	0.1131	0.3271	-0.8674
MW-15 (bg)	11	0%	0.767	1.04	0.9154	0.94	0.08348	0.0912	-0.674

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Summary Report

Constituent: Bromate Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/18/2021 and 9/22/2022, a summary of the selected data set:

Observations = 11
NDs = 90%
Wells = 3
Minimum Value = 5
Maximum Value = 500
Mean Value = 96.48
Median Value = 5
Standard Deviation = 199.5
Coefficient of Variation = 2.068
Skewness = 1.649

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	4	75%	5	500	130.3	8.15	246.5	1.891	1.154
MW-13 (bg)	3	100%	5	10	6.667	5	2.887	0.433	0.7071
MW-15 (bg)	4	100%	5	500	130	7.5	246.7	1.898	1.154

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Summary Report

Constituent: Cadmium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 78%
Wells = 3
Minimum Value = 0.000039
Maximum Value = 0.005
Mean Value = 0.0009971
Median Value = 0.000274
Standard Deviation = 0.001759
Coefficient of Variation = 1.765
Skewness = 1.85

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	81%	0.000049	0.005	0.001115	0.000334	0.001929	1.73	1.616
MW-13 (bg)	10	70%	0.0001	0.005	0.0007606	0.000353	0.001502	1.974	2.588
MW-15 (bg)	11	81%	0.000039	0.005	0.001094	0.000118	0.00194	1.773	1.615

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Summary Report

Constituent: Calcium Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 53.1
Maximum Value = 473
Mean Value = 106.8
Median Value = 83.7
Standard Deviation = 86.56
Coefficient of Variation = 0.8108
Skewness = 3.38

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	53.1	86.2	73.53	74.9	10.57	0.1437	-0.8021
MW-13 (bg)	10	0%	55.7	473	167.4	106	139.9	0.8358	1.424
MW-15 (bg)	11	0%	73.4	102	84.87	84.5	8.92	0.1051	0.3435

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Summary Report

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 3/21/2023, a summary of the selected data set:

Observations = 12
NDs = 100%
Wells = 3
Minimum Value = 5
Maximum Value = 20
Mean Value = 11.25
Median Value = 10
Standard Deviation = 5.691
Coefficient of Variation = 0.5059
Skewness = 0.652

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	4	100%	5	20	11.25	10	6.292	0.5592	0.652
MW-13 (bg)	4	100%	5	20	11.25	10	6.292	0.5592	0.652
MW-15 (bg)	4	100%	5	20	11.25	10	6.292	0.5592	0.652

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Summary Report

Constituent: Chloride Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 9%
Wells = 3
Minimum Value = 1
Maximum Value = 683
Mean Value = 88.27
Median Value = 12.95
Standard Deviation = 178.5
Coefficient of Variation = 2.023
Skewness = 2.517

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	27%	1	6.29	3.31	2.4	2.052	0.62	0.2477
MW-13 (bg)	10	0%	35.6	683	261.5	176	247.3	0.9456	0.8531
MW-15 (bg)	11	0%	8.11	24.9	15.74	14.3	6.294	0.3998	0.2006

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Summary Report

Constituent: Chromium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 87%
Wells = 3
Minimum Value = 0.00098
Maximum Value = 0.00578
Mean Value = 0.00437
Median Value = 0.005
Standard Deviation = 0.00142
Coefficient of Variation = 0.325
Skewness = -1.767

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	100%	0.00098	0.005	0.00428	0.005	0.001602	0.3743	-1.651
MW-13 (bg)	10	60%	0.00191	0.00578	0.004568	0.005	0.001086	0.2377	-1.593
MW-15 (bg)	11	100%	0.00098	0.005	0.00428	0.005	0.001602	0.3743	-1.651

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Summary Report

Constituent: Cobalt Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 28%
Wells = 3
Minimum Value = 0.000115
Maximum Value = 0.00827
Mean Value = 0.001913
Median Value = 0.0009995
Standard Deviation = 0.002068
Coefficient of Variation = 1.081
Skewness = 1.476

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	36%	0.000115	0.005	0.001362	0.000602	0.001808	1.327	1.608
MW-13 (bg)	10	10%	0.000857	0.00827	0.002942	0.00199	0.002451	0.8331	1.147
MW-15 (bg)	11	36%	0.000284	0.005	0.001527	0.00102	0.001741	1.14	1.542

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Summary Report

Constituent: Copper Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 81%
Wells = 3
Minimum Value = 0.0015
Maximum Value = 0.0305
Mean Value = 0.00696
Median Value = 0.005
Standard Deviation = 0.005393
Coefficient of Variation = 0.7749
Skewness = 2.857

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	90%	0.0015	0.01	0.005642	0.005	0.002818	0.4994	0.3257
MW-13 (bg)	10	60%	0.005	0.0305	0.01014	0.00647	0.008195	0.8079	1.729
MW-15 (bg)	11	90%	0.0015	0.01	0.005384	0.005	0.002649	0.492	0.5596

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Summary Report

Constituent: Fluoride Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 25%
Wells = 3
Minimum Value = 0.0719
Maximum Value = 0.876
Mean Value = 0.3817
Median Value = 0.4305
Standard Deviation = 0.2209
Coefficient of Variation = 0.5788
Skewness = 0.1246

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	36%	0.1	0.5	0.2517	0.203	0.1523	0.6048	0.6352
MW-13 (bg)	10	40%	0.0719	0.636	0.3189	0.2965	0.2024	0.6347	0.1591
MW-15 (bg)	11	0%	0.145	0.876	0.5687	0.606	0.1739	0.3057	-0.9343

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Summary Report

Constituent: Lead Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 50%
Wells = 3
Minimum Value = 0.000132
Maximum Value = 0.0194
Mean Value = 0.003378
Median Value = 0.000503
Standard Deviation = 0.004904
Coefficient of Variation = 1.451
Skewness = 1.598

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	54%	0.000132	0.01	0.002219	0.0005	0.00385	1.735	1.644
MW-13 (bg)	10	30%	0.0005	0.0194	0.005854	0.003705	0.006339	1.083	0.9999
MW-15 (bg)	11	63%	0.000357	0.01	0.002287	0.0005	0.003825	1.672	1.628

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Summary Report

Constituent: Lithium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 0.0114
Maximum Value = 0.0659
Mean Value = 0.03914
Median Value = 0.03735
Standard Deviation = 0.01605
Coefficient of Variation = 0.41
Skewness = 0.08055

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	0.0215	0.0512	0.03039	0.026	0.009713	0.3196	1.27
MW-13 (bg)	10	0%	0.0114	0.0422	0.02864	0.03155	0.01124	0.3926	-0.3144
MW-15 (bg)	11	0%	0.049	0.0659	0.05743	0.0582	0.005265	0.09168	-0.0886

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Summary Report

Constituent: Magnesium Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 8.6
Maximum Value = 77.6
Mean Value = 41.14
Median Value = 44.45
Standard Deviation = 14.22
Coefficient of Variation = 0.3457
Skewness = -0.3257

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	14.7	47	38.05	41.5	10.94	0.2875	-1.141
MW-13 (bg)	10	0%	8.6	77.6	35.16	36.45	19.82	0.5638	0.7293
MW-15 (bg)	11	0%	41.9	58	49.68	49.5	5.222	0.1051	0.2908

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Summary Report

Constituent: Manganese Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 0.0219
Maximum Value = 2.42
Mean Value = 0.3033
Median Value = 0.1585
Standard Deviation = 0.5069
Coefficient of Variation = 1.672
Skewness = 3.056

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	0.0249	0.197	0.1405	0.159	0.0542	0.3857	-1.017
MW-13 (bg)	10	0%	0.143	2.42	0.7225	0.321	0.7696	1.065	1.26
MW-15 (bg)	11	0%	0.0219	0.2	0.08487	0.0902	0.05708	0.6726	0.5941

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Summary Report

Constituent: Molybdenum Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 59%
Wells = 3
Minimum Value = 0.0011
Maximum Value = 0.0228
Mean Value = 0.006192
Median Value = 0.002
Standard Deviation = 0.007102
Coefficient of Variation = 1.147
Skewness = 1.32

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	81%	0.0011	0.02	0.0053	0.002	0.007285	1.375	1.632
MW-13 (bg)	10	20%	0.002	0.0228	0.008215	0.006095	0.006959	0.8471	0.9008
MW-15 (bg)	11	72%	0.0011	0.02	0.005246	0.002	0.007332	1.398	1.612

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Summary Report

Constituent: Nickel Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 65%
Wells = 3
Minimum Value = 0.0017
Maximum Value = 0.864
Mean Value = 0.03294
Median Value = 0.005
Standard Deviation = 0.1517
Coefficient of Variation = 4.605
Skewness = 5.381

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	81%	0.0017	0.864	0.0826	0.005	0.2592	3.138	2.846
MW-13 (bg)	10	20%	0.005	0.0228	0.009676	0.00606	0.006232	0.6441	1.1
MW-15 (bg)	11	90%	0.0017	0.005	0.004438	0.005	0.001253	0.2824	-1.672

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Summary Report

Constituent: Nitrate Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 40%
Wells = 3
Minimum Value = 0.046
Maximum Value = 3.86
Mean Value = 0.4911
Median Value = 0.1
Standard Deviation = 0.9832
Coefficient of Variation = 2.002
Skewness = 2.69

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	27%	0.05	3.86	1.116	0.13	1.509	1.353	1.027
MW-13 (bg)	10	30%	0.046	0.862	0.2441	0.1465	0.2406	0.9856	1.857
MW-15 (bg)	11	63%	0.046	0.103	0.09096	0.1	0.01926	0.2117	-1.677

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Summary Report

Constituent: Nitrite Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/26/2020 and 3/21/2023, a summary of the selected data set:

Observations = 20
NDs = 100%
Wells = 3
Minimum Value = 0.039
Maximum Value = 0.195
Mean Value = 0.0895
Median Value = 0.1
Standard Deviation = 0.03658
Coefficient of Variation = 0.4087
Skewness = 0.6029

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	7	100%	0.039	0.195	0.1049	0.1	0.04579	0.4367	0.8367
MW-13 (bg)	6	100%	0.039	0.1	0.07967	0.1	0.0315	0.3954	-0.7071
MW-15 (bg)	7	100%	0.039	0.1	0.08257	0.1	0.02976	0.3605	-0.9487

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Summary Report

Constituent: pH Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 6.9
Maximum Value = 10.34
Mean Value = 7.748
Median Value = 7.47
Standard Deviation = 0.7975
Coefficient of Variation = 0.1029
Skewness = 1.833

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	7.23	10.34	7.92	7.47	0.9562	0.1207	1.737
MW-13 (bg)	10	0%	6.9	9.89	7.834	7.5	0.8869	0.1132	1.237
MW-15 (bg)	11	0%	6.98	8.77	7.497	7.3	0.4903	0.0654	1.683

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Summary Report

Constituent: Phosphorus Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 68%
Wells = 3
Minimum Value = 0.041
Maximum Value = 2.56
Mean Value = 0.1932
Median Value = 0.1
Standard Deviation = 0.4384
Coefficient of Variation = 2.269
Skewness = 5.151

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	72%	0.0419	0.1	0.08706	0.1	0.02264	0.2601	-1.162
MW-13 (bg)	10	50%	0.1	2.56	0.4215	0.1325	0.7594	1.802	2.565
MW-15 (bg)	11	81%	0.041	0.1	0.09175	0.1	0.01885	0.2055	-2.103

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Summary Report

Constituent: Potassium Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 3.68
Maximum Value = 16.7
Mean Value = 7.912
Median Value = 7.07
Standard Deviation = 2.96
Coefficient of Variation = 0.3742
Skewness = 0.9422

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	3.68	16.7	7.426	5.19	4.621	0.6222	1.096
MW-13 (bg)	10	0%	5.71	8.34	6.615	6.345	0.7604	0.115	1.107
MW-15 (bg)	11	0%	8.41	10.2	9.576	9.55	0.5499	0.05742	-0.7998

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Summary Report

Constituent: Selenium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 96%
Wells = 3
Minimum Value = 0.001
Maximum Value = 0.02
Mean Value = 0.006287
Median Value = 0.005
Standard Deviation = 0.004972
Coefficient of Variation = 0.7909
Skewness = 1.325

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	100%	0.001	0.015	0.006091	0.005	0.004679	0.7682	1.169
MW-13 (bg)	10	90%	0.001	0.02	0.006719	0.005	0.006018	0.8957	1.356
MW-15 (bg)	11	100%	0.001	0.015	0.006091	0.005	0.004679	0.7682	1.169

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Summary Report

Constituent: Silver Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 100%
Wells = 3
Minimum Value = 0.00037
Maximum Value = 0.007
Mean Value = 0.001913
Median Value = 0.001
Standard Deviation = 0.002305
Coefficient of Variation = 1.205
Skewness = 1.686

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	100%	0.00037	0.007	0.001976	0.001	0.002496	1.263	1.61
MW-13 (bg)	10	100%	0.00037	0.007	0.001774	0.001	0.002103	1.185	1.832
MW-15 (bg)	11	100%	0.00037	0.007	0.001976	0.001	0.002496	1.263	1.61

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Summary Report

Constituent: Sodium Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 16
Maximum Value = 584
Mean Value = 76.48
Median Value = 36.75
Standard Deviation = 120.8
Coefficient of Variation = 1.579
Skewness = 3.038

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	16	26.9	19.38	19.1	2.799	0.1444	1.743
MW-13 (bg)	10	0%	34.1	584	182.3	123.5	178.7	0.9803	1.293
MW-15 (bg)	11	0%	32.4	43.7	37.41	37	3.456	0.09239	0.2176

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Summary Report

Constituent: Specific conductivity Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 532
Maximum Value = 2550
Mean Value = 980.8
Median Value = 814
Standard Deviation = 475.2
Coefficient of Variation = 0.4845
Skewness = 2.078

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	532	758	680.9	702	69.72	0.1024	-0.8115
MW-13 (bg)	10	0%	822	2550	1388	1079	645.6	0.4653	0.7975
MW-15 (bg)	11	0%	673	1495	910.8	899	224.2	0.2462	1.608

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Summary Report

Constituent: Sulfate Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 21.8
Maximum Value = 196
Mean Value = 78.49
Median Value = 74.45
Standard Deviation = 42.27
Coefficient of Variation = 0.5386
Skewness = 0.8072

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	21.8	116	56.05	32.3	36.94	0.6592	0.5879
MW-13 (bg)	10	0%	46.9	157	70.26	61.55	33.1	0.4711	1.984
MW-15 (bg)	11	0%	67.1	196	108.4	87	39.77	0.3668	0.9023

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Summary Report

Constituent: Thallium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 100%
Wells = 3
Minimum Value = 0.00026
Maximum Value = 0.02
Mean Value = 0.003925
Median Value = 0.001
Standard Deviation = 0.007056
Coefficient of Variation = 1.798
Skewness = 1.863

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	100%	0.00026	0.02	0.004321	0.001	0.007757	1.795	1.644
MW-13 (bg)	10	100%	0.00026	0.02	0.003053	0.001	0.006045	1.98	2.53
MW-15 (bg)	11	100%	0.00026	0.02	0.004321	0.001	0.007757	1.795	1.644

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Summary Report

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 0%
Wells = 3
Minimum Value = 234
Maximum Value = 1680
Mean Value = 531.3
Median Value = 444
Standard Deviation = 279.3
Coefficient of Variation = 0.5256
Skewness = 2.623

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	0%	234	414	353.8	374	53.49	0.1512	-0.9832
MW-13 (bg)	10	0%	386	1680	772.6	617	395.2	0.5116	1.266
MW-15 (bg)	11	0%	422	577	489.5	474	59.06	0.1207	0.4188

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Summary Report

Constituent: Vanadium Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 84%
Wells = 3
Minimum Value = 0.00082
Maximum Value = 0.0304
Mean Value = 0.006407
Median Value = 0.005
Standard Deviation = 0.005128
Coefficient of Variation = 0.8004
Skewness = 3.27

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	90%	0.00082	0.01	0.005229	0.005	0.002789	0.5334	0.4227
MW-13 (bg)	10	60%	0.005	0.0304	0.009085	0.005925	0.007809	0.8595	2.296
MW-15 (bg)	11	100%	0.00082	0.01	0.005152	0.005	0.002906	0.564	0.2864

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Summary Report

Constituent: Zinc Total Analysis Run 11/22/2023 12:26 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 3/21/2023, a summary of the selected data set:

Observations = 32
NDs = 81%
Wells = 3
Minimum Value = 0.01
Maximum Value = 0.307
Mean Value = 0.03585
Median Value = 0.02
Standard Deviation = 0.05191
Coefficient of Variation = 1.448
Skewness = 4.661

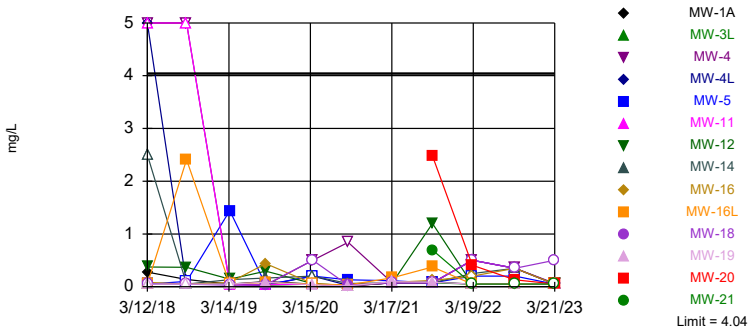
Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	11	81%	0.01	0.05	0.02432	0.02	0.01306	0.5372	1.41
MW-13 (bg)	10	60%	0.02	0.307	0.06197	0.0304	0.08822	1.424	2.444
MW-15 (bg)	11	100%	0.01	0.05	0.02364	0.02	0.01362	0.5762	1.297

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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 the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 34.38% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

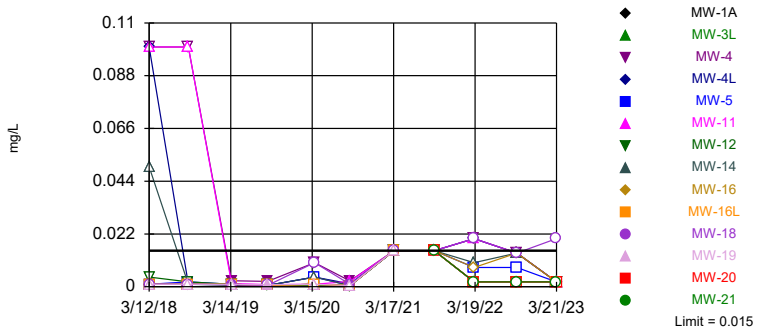
Constituent: Aluminum Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 32 background values. 87.5% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

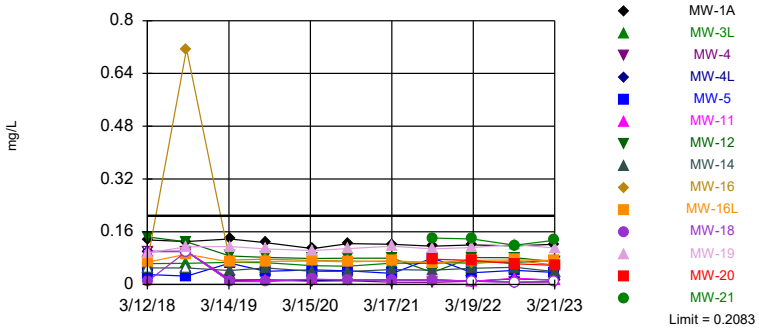
Constituent: Antimony Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=0.4488, Std. Dev.=0.05783, n=32. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9084, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

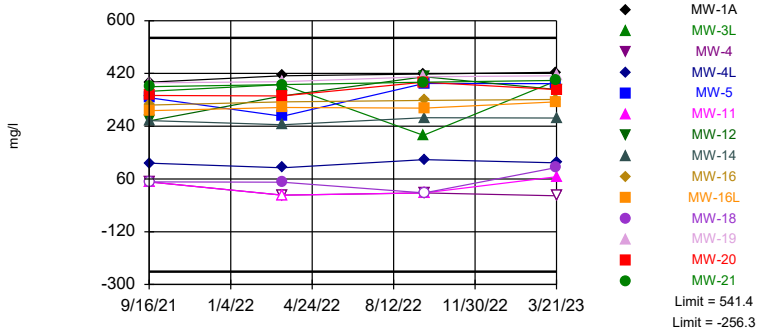
Constituent: Barium Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary (based on square transformation): Mean=113741, Std. Dev.=56802, n=12. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8234, critical = 0.805. Kappa = 3.159 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.00009755. Comparing 14 points to limit. Assumes 1 future value.

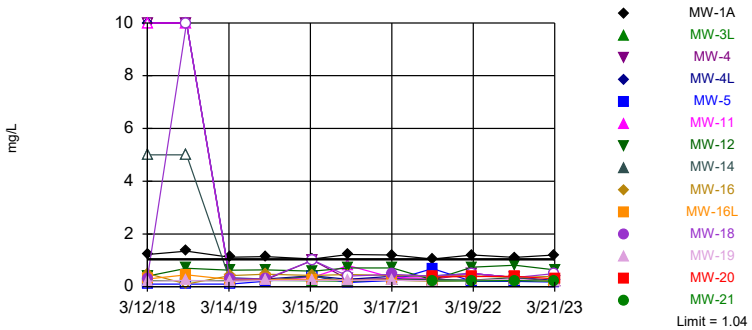
Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-1A

Prediction Limit

Interwell Non-parametric



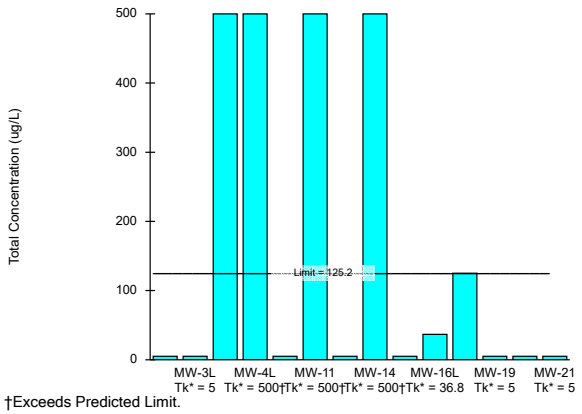
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 12.5% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Boron Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1A,MW-3L,MW-4,MW-4L,MW-5,MW-7,MW-11,MW-12,MW-13,MW-14,MW-15,MW-1...



†Exceeds Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 90.91% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

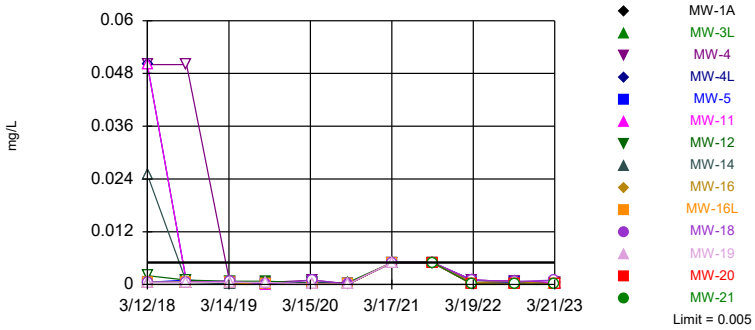
Constituent: Bromate Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 32 background values. 78.13% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

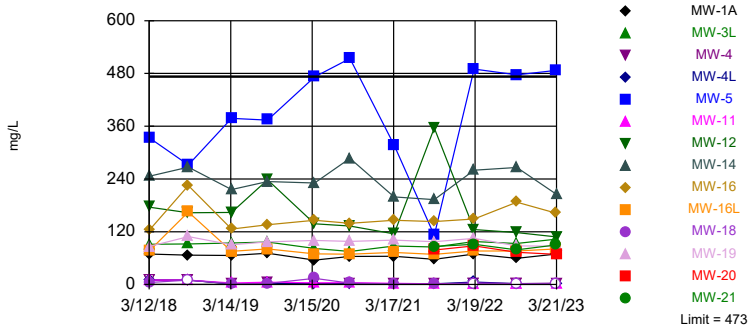
Constituent: Cadmium Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-5

Prediction Limit

Interwell Non-parametric



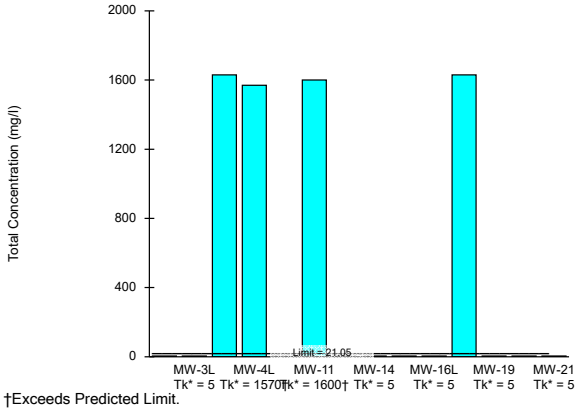
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Calcium Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1A,MW-3L,MW-4,MW-4L,MW-5,MW-7,MW-11,MW-12,MW-13,MW-14,MW-15,MW-1...



†Exceeds Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 100% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

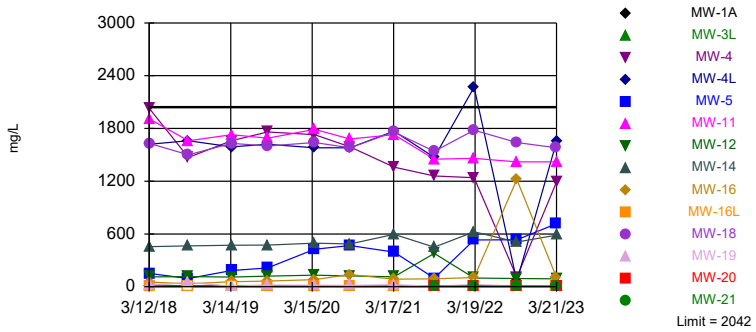
Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=2.787, Std. Dev.=1.942, n=32, 9.375% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9653, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

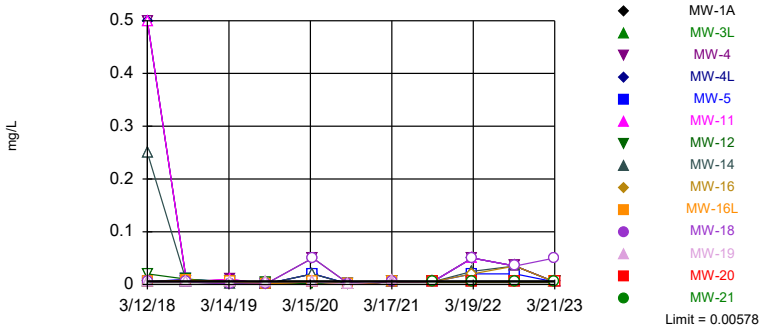
Constituent: Chloride Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 32 background values. 87.5% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

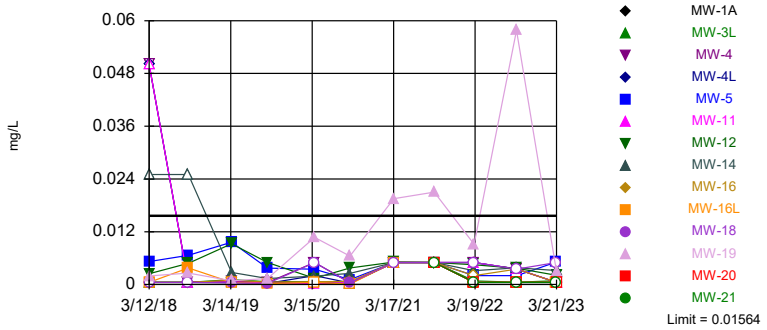
Constituent: Chromium Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-6.741, Std. Dev.=1.037, n=32, 28.13% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.915, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

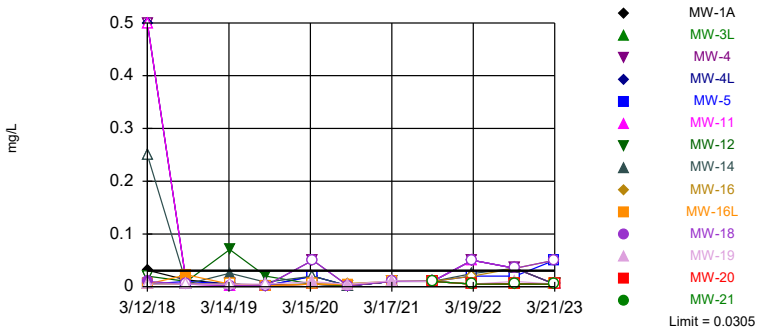
Constituent: Cobalt Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 32 background values. 81.25% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

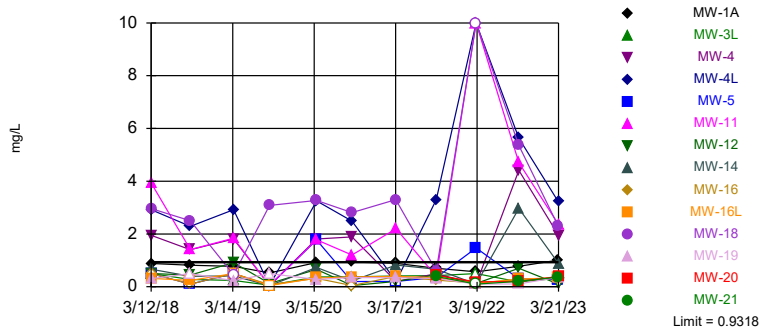
Constituent: Copper Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-1A, MW-4, MW-4L, MW-11, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.3817, Std. Dev.=0.2209, n=32, 25% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9121, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

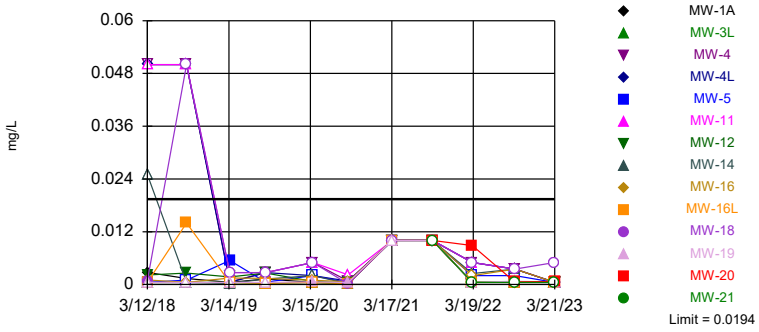
Constituent: Fluoride Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell 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 32 background values. 50% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

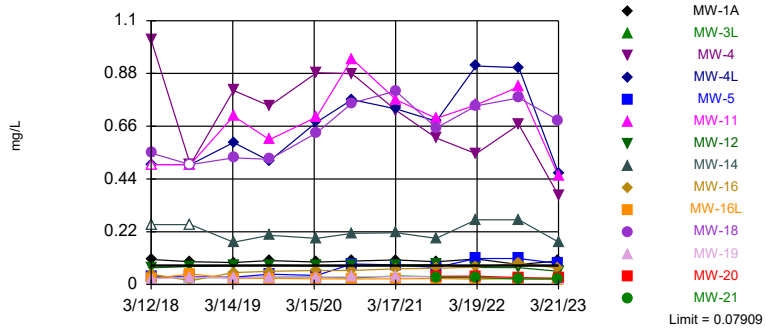
Constituent: Lead Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-1A, MW-4, MW-4L, MW-5, MW-11, MW-14, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.03914, Std. Dev.=0.01605, n=32. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9372, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

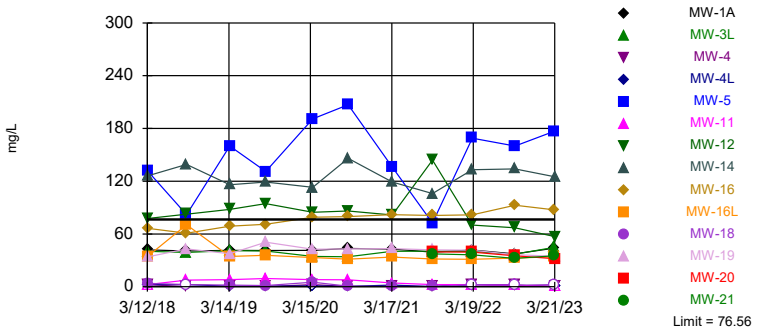
Constituent: Lithium Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-5, MW-14, MW-16

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=41.14, Std. Dev.=14.22, n=32. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9295, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

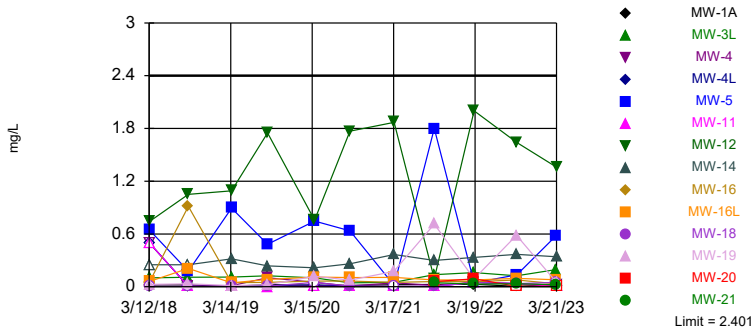
Constituent: Magnesium Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.891, Std. Dev.=1.111, n=32. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9319, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

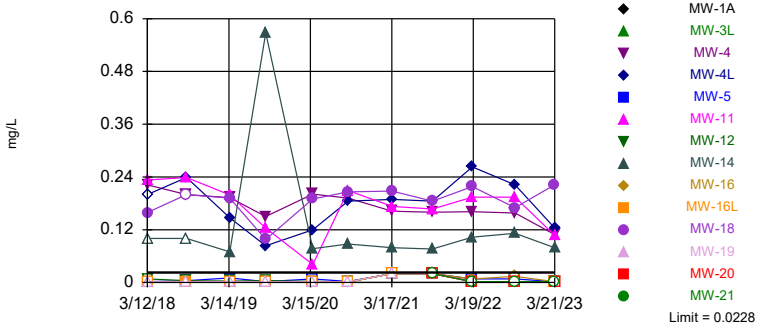
Constituent: Manganese Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-4, MW-4L, MW-11, MW-14, MW-18

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 59.38% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

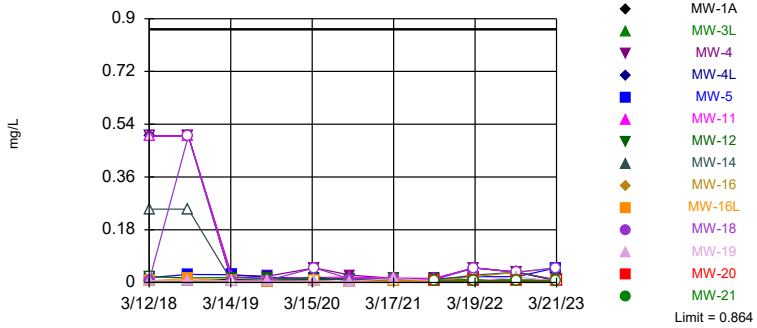
Constituent: Molybdenum Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 32 background values. 65.63% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Nickel Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

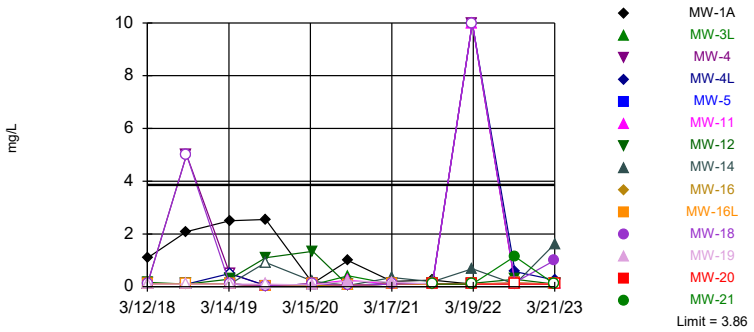
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell 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 32 background values. 40.63% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

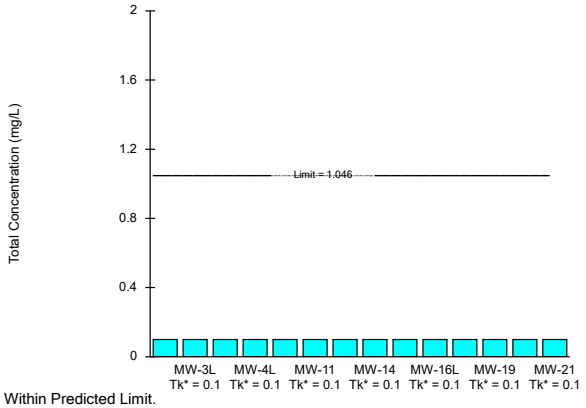
Constituent: Nitrate Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1A,MW-3L,MW-4,MW-4L,MW-5,MW-7,MW-11,MW-12,MW-13,MW-14,MW-15,MW-1...



Within Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 100% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

Constituent: Nitrite Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

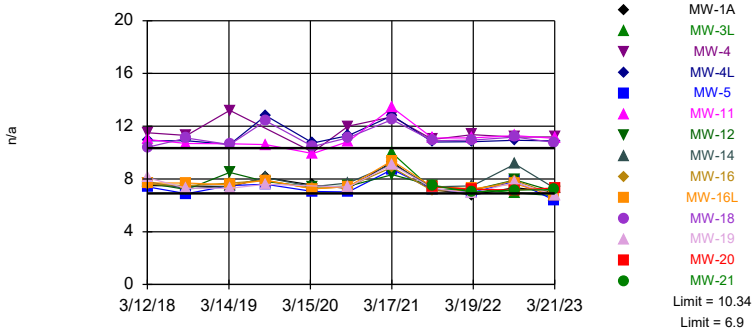
Continental Cement Data: Import 1

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Exceeds Limits: MW-3L, MW-4, MW-4L, MW-5, MW-11, MW-16, MW-16L, MW-18, MW-19

Prediction Limit

Interwell 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. Limits are highest and lowest of 32 background values. Annual per-constituent alpha = 0.0509. Individual comparison alpha = 0.003434 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: pH Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

Continental Cement Data: Import 1

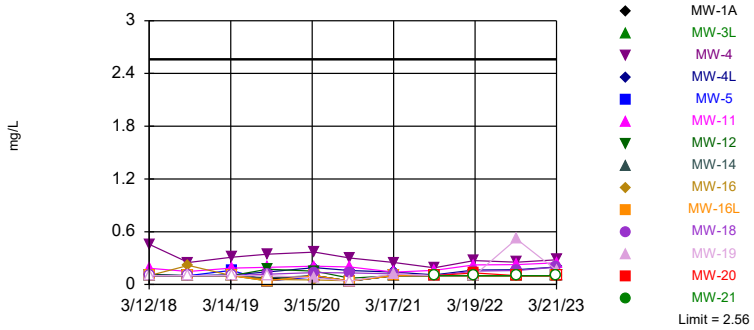
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Hollow symbols indicate censored values.

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 32 background values. 68.75% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Phosphorus Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

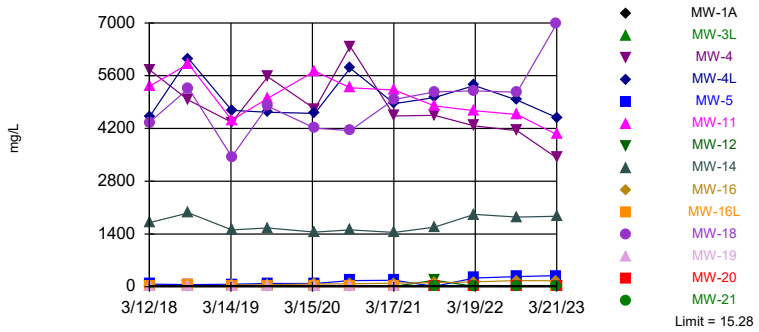
Continental Cement Data: Import 1

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Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-14, MW-16, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=7.912, Std. Dev.=2.96, n=32. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9231, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

Constituent: Potassium Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

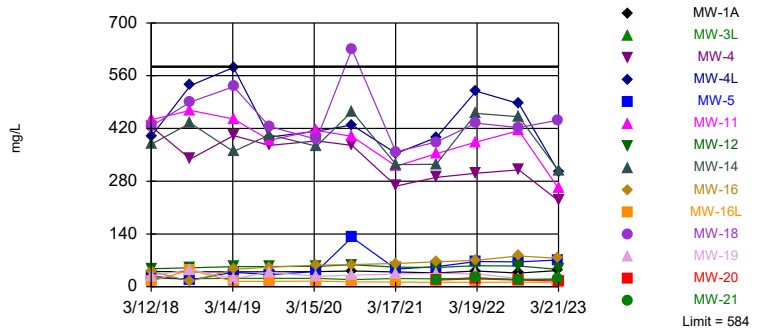
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell 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 32 background values. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Sodium Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

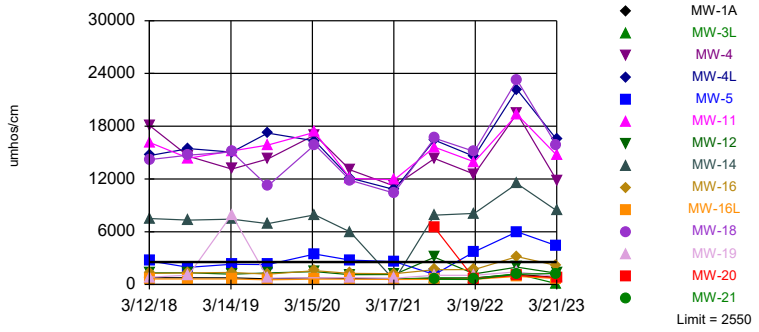
Continental Cement Data: Import 1

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Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-14, MW-18

Prediction Limit

Interwell 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 32 background values. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Specific conductivity Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

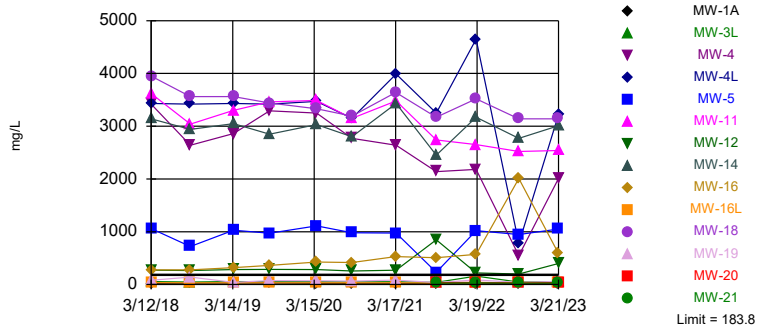
Continental Cement Data: Import 1

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Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-12, MW-14, MW-16, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=78.49, Std. Dev.=42.27, n=32. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.938, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

Constituent: Sulfate Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

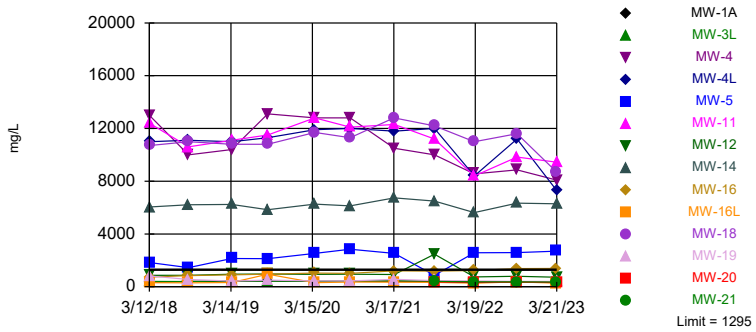
Continental Cement Data: Import 1

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Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-14, MW-16, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=6.187, Std. Dev.=0.3932, n=32. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9075, critical = 0.904. Kappa = 2.49 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysi

Continental Cement Data: Import 1

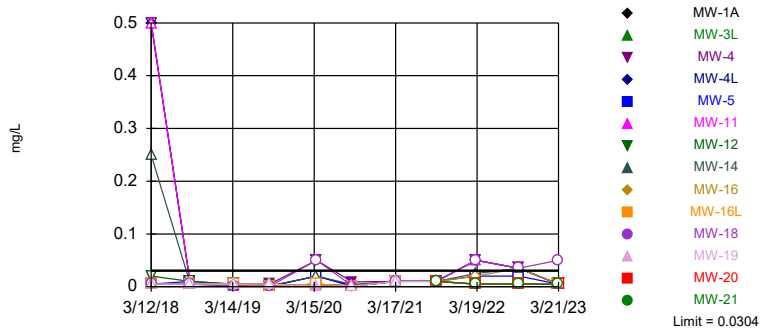
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Hollow symbols indicate censored values.

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 32 background values. 84.38% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Vanadium Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

Continental Cement Data: Import 1

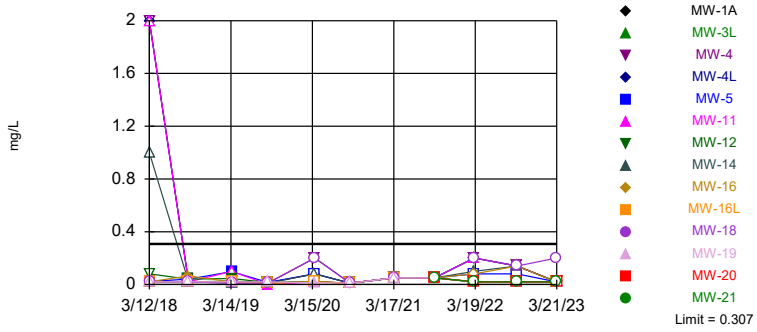
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

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 32 background values. 81.25% NDs. Annual per-constituent alpha = 0.02545. Individual comparison alpha = 0.001717 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Zinc Total Analysis Run 11/22/2023 1:00 PM View: Deep GBZ Statistical Analysis

Continental Cement Data: Import 1

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Aluminum Total (mg/L)	MW-1A	4.04	n/a	3/20/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-3L	4.04	n/a	3/20/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-4	4.04	n/a	3/21/2023	0.063	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-4L	4.04	n/a	3/21/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-5	4.04	n/a	3/20/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-11	4.04	n/a	3/21/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-12	4.04	n/a	3/21/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-14	4.04	n/a	3/21/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-16	4.04	n/a	3/20/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-16L	4.04	n/a	3/20/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-18	4.04	n/a	3/20/2023	0.5ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-19	4.04	n/a	3/21/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-20	4.04	n/a	3/21/2023	0.0527	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-21	4.04	n/a	3/20/2023	0.05ND	No	32	34.38	n/a	0.001717	NP Inter (normality) ...
Antimony Total (mg/L)	MW-1A	0.015	n/a	3/20/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-3L	0.015	n/a	3/20/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-4	0.015	n/a	3/21/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-4L	0.015	n/a	3/21/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-5	0.015	n/a	3/20/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-11	0.015	n/a	3/21/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-12	0.015	n/a	3/21/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-14	0.015	n/a	3/21/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-16	0.015	n/a	3/20/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-16L	0.015	n/a	3/20/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-18	0.015	n/a	3/20/2023	0.02ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-19	0.015	n/a	3/21/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-20	0.015	n/a	3/21/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-21	0.015	n/a	3/20/2023	0.002ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Barium Total (mg/L)	MW-1A	0.2083	n/a	3/20/2023	0.122	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-3L	0.2083	n/a	3/20/2023	0.074	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-4	0.2083	n/a	3/21/2023	0.00723	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-4L	0.2083	n/a	3/21/2023	0.013	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-5	0.2083	n/a	3/20/2023	0.0363	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-11	0.2083	n/a	3/21/2023	0.0132	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-12	0.2083	n/a	3/21/2023	0.0688	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-14	0.2083	n/a	3/21/2023	0.0387	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-16	0.2083	n/a	3/20/2023	0.0594	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-16L	0.2083	n/a	3/20/2023	0.0729	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-18	0.2083	n/a	3/20/2023	0.01ND	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-19	0.2083	n/a	3/21/2023	0.111	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-20	0.2083	n/a	3/21/2023	0.058	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-21	0.2083	n/a	3/20/2023	0.134	No	32	0	x^(1/3)	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-1A	541.4	-256.3	3/20/2023	424	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-3L	541.4	-256.3	3/20/2023	394	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-4	541.4	-256.3	3/21/2023	2.5ND	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-4L	541.4	-256.3	3/21/2023	115	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-5	541.4	-256.3	3/20/2023	385	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-11	541.4	-256.3	3/21/2023	67.5	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-12	541.4	-256.3	3/21/2023	365	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-14	541.4	-256.3	3/21/2023	268	No	12	0	x^2	0.000...	Param Inter 1 of 2

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Bicarbonate Alkalinity (mg/l)	MW-16	541.4	-256.3	3/20/2023	331	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-16L	541.4	-256.3	3/20/2023	323	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-18	541.4	-256.3	3/20/2023	98.5	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-19	541.4	-256.3	3/21/2023	412	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-20	541.4	-256.3	3/21/2023	365	No	12	0	x^2	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-21	541.4	-256.3	3/20/2023	396	No	12	0	x^2	0.000...	Param Inter 1 of 2
Boron Total (mg/L)	**MW-1A**	**1.04**	**n/a**	**3/20/2023**	**1.2**	**Yes**	**32**	**12.5**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Boron Total (mg/L)	MW-3L	1.04	n/a	3/20/2023	0.241	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-4	1.04	n/a	3/21/2023	0.212	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-4L	1.04	n/a	3/21/2023	0.239	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-5	1.04	n/a	3/20/2023	0.179	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-11	1.04	n/a	3/21/2023	0.198	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-12	1.04	n/a	3/21/2023	0.638	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-14	1.04	n/a	3/21/2023	0.201	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-16	1.04	n/a	3/20/2023	0.397	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-16L	1.04	n/a	3/20/2023	0.231	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-18	1.04	n/a	3/20/2023	0.5ND	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-19	1.04	n/a	3/21/2023	0.19	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-20	1.04	n/a	3/21/2023	0.301	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Boron Total (mg/L)	MW-21	1.04	n/a	3/20/2023	0.205	No	32	12.5	n/a	0.001717	NP Inter (normality) ...
Bromate (ug/L)	MW-1A	125.2	n/a	3/20/2023	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	MW-3L	125.2	n/a	3/20/2023	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	**MW-4**	**125.2**	**n/a**	**9/23/2022**	**Tk*=500**	**Yes**	**11**	**90.91**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-4L**	**125.2**	**n/a**	**9/23/2022**	**Tk*=500**	**Yes**	**11**	**90.91**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	MW-5	125.2	n/a	3/20/2023	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	**MW-11**	**125.2**	**n/a**	**9/23/2022**	**Tk*=500**	**Yes**	**11**	**90.91**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	MW-12	125.2	n/a	9/23/2022	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	**MW-14**	**125.2**	**n/a**	**9/23/2022**	**Tk*=500**	**Yes**	**11**	**90.91**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	MW-16	125.2	n/a	3/20/2023	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	MW-16L	125.2	n/a	3/20/2023	Tk*=36.8	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	MW-18	125.2	n/a	3/20/2023	Tk*=125	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	MW-19	125.2	n/a	9/22/2022	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	MW-20	125.2	n/a	9/22/2022	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Bromate (ug/L)	MW-21	125.2	n/a	3/20/2023	Tk*=5	No	11	90.91	n/a	0.01	Poisson Inter (NDs)
Cadmium Total (mg/L)	MW-1A	0.005	n/a	3/20/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-3L	0.005	n/a	3/20/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-4	0.005	n/a	3/21/2023	0.0004ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-4L	0.005	n/a	3/21/2023	0.0004ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-5	0.005	n/a	3/20/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-11	0.005	n/a	3/21/2023	0.0004ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-12	0.005	n/a	3/21/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-14	0.005	n/a	3/21/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-16	0.005	n/a	3/20/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-16L	0.005	n/a	3/20/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-18	0.005	n/a	3/20/2023	0.001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-19	0.005	n/a	3/21/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-20	0.005	n/a	3/21/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-21	0.005	n/a	3/20/2023	0.0001ND	No	32	78.13	n/a	0.001717	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-1A	473	n/a	3/20/2023	69.3	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-3L	473	n/a	3/20/2023	103	No	32	0	n/a	0.001717	NP Inter (normality) ...

Prediction Limit

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	MW-4	473	n/a	3/21/2023	2.59	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-4L	473	n/a	3/21/2023	1.21	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	**MW-5**	**473**	**n/a**	**3/20/2023**	**487**	**Yes**	**32**	**0**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Calcium (mg/L)	MW-11	473	n/a	3/21/2023	1.43	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-12	473	n/a	3/21/2023	108	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-14	473	n/a	3/21/2023	205	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-16	473	n/a	3/20/2023	162	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-16L	473	n/a	3/20/2023	81	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-18	473	n/a	3/20/2023	2.5ND	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-19	473	n/a	3/21/2023	87.2	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-20	473	n/a	3/21/2023	68.5	No	32	0	n/a	0.001717	NP Inter (normality) ...
Calcium (mg/L)	MW-21	473	n/a	3/20/2023	90	No	32	0	n/a	0.001717	NP Inter (normality) ...
Carbonate Alkalinity (mg/l)	MW-1A	21.05	n/a	3/20/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-3L	21.05	n/a	3/20/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	**MW-4**	**21.05**	**n/a**	**3/21/2023**	**Tk*=1630**	**Yes**	**12**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	**MW-4L**	**21.05**	**n/a**	**3/21/2023**	**Tk*=1570**	**Yes**	**12**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	MW-5	21.05	n/a	3/20/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	**MW-11**	**21.05**	**n/a**	**3/21/2023**	**Tk*=1600**	**Yes**	**12**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	MW-12	21.05	n/a	3/21/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-14	21.05	n/a	3/21/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-16	21.05	n/a	3/20/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-16L	21.05	n/a	3/20/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	**MW-18**	**21.05**	**n/a**	**3/20/2023**	**Tk*=1630**	**Yes**	**12**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	MW-19	21.05	n/a	3/21/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-20	21.05	n/a	3/21/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-21	21.05	n/a	3/20/2023	Tk*=5	No	12	100	n/a	0.01	Poisson Inter (NDs)
Chloride (mg/L)	MW-1A	2042	n/a	3/20/2023	2.42	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-3L	2042	n/a	3/20/2023	11.3	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-4	2042	n/a	3/21/2023	1190	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-4L	2042	n/a	3/21/2023	1650	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-5	2042	n/a	3/20/2023	715	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-11	2042	n/a	3/21/2023	1420	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-12	2042	n/a	3/21/2023	90.4	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-14	2042	n/a	3/21/2023	587	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-16	2042	n/a	3/20/2023	110	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-16L	2042	n/a	3/20/2023	1.27	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-18	2042	n/a	3/20/2023	1580	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-19	2042	n/a	3/21/2023	13	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-20	2042	n/a	3/21/2023	5.58	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-21	2042	n/a	3/20/2023	1.5	No	32	9.375	ln(x)	0.000...	Param Inter 1 of 2
Chromium Total (mg/L)	MW-1A	0.00578	n/a	3/20/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-3L	0.00578	n/a	3/20/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-4	0.00578	n/a	3/21/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-4L	0.00578	n/a	3/21/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-5	0.00578	n/a	3/20/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-11	0.00578	n/a	3/21/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-12	0.00578	n/a	3/21/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-14	0.00578	n/a	3/21/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-16	0.00578	n/a	3/20/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-16L	0.00578	n/a	3/20/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2

Prediction Limit

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chromium Total (mg/L)	MW-18	0.00578	n/a	3/20/2023	0.05ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-19	0.00578	n/a	3/21/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-20	0.00578	n/a	3/21/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-21	0.00578	n/a	3/20/2023	0.005ND	No	32	87.5	n/a	0.001717	NP Inter (NDs) 1 of 2
Cobalt Total (mg/L)	MW-1A	0.01564	n/a	3/20/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-3L	0.01564	n/a	3/20/2023	0.000843	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-4	0.01564	n/a	3/21/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-4L	0.01564	n/a	3/21/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-5	0.01564	n/a	3/20/2023	0.00511	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-11	0.01564	n/a	3/21/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-12	0.01564	n/a	3/21/2023	0.00209	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-14	0.01564	n/a	3/21/2023	0.00319	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-16	0.01564	n/a	3/20/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-16L	0.01564	n/a	3/20/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-18	0.01564	n/a	3/20/2023	0.005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-19	0.01564	n/a	3/21/2023	0.00291	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-20	0.01564	n/a	3/21/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-21	0.01564	n/a	3/20/2023	0.0005ND	No	32	28.13	ln(x)	0.000...	Param Inter 1 of 2
Copper Total (mg/L)	MW-1A	0.0305	n/a	3/20/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-3L	0.0305	n/a	3/20/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-4	0.0305	n/a	3/21/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-4L	0.0305	n/a	3/21/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-5	0.0305	n/a	3/20/2023	0.05ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-11	0.0305	n/a	3/21/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-12	0.0305	n/a	3/21/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-14	0.0305	n/a	3/21/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-16	0.0305	n/a	3/20/2023	0.05ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-16L	0.0305	n/a	3/20/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-18	0.0305	n/a	3/20/2023	0.05ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-19	0.0305	n/a	3/21/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-20	0.0305	n/a	3/21/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-21	0.0305	n/a	3/20/2023	0.005ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	**MW-1A**	**0.9318**	**n/a**	**3/20/2023**	**1.01**	**Yes**	**32**	**25**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-3L	0.9318	n/a	3/20/2023	0.319	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	**MW-4**	**0.9318**	**n/a**	**3/21/2023**	**1.95**	**Yes**	**32**	**25**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	**MW-4L**	**0.9318**	**n/a**	**3/21/2023**	**3.21**	**Yes**	**32**	**25**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-5	0.9318	n/a	3/20/2023	0.273	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	**MW-11**	**0.9318**	**n/a**	**3/21/2023**	**2.36**	**Yes**	**32**	**25**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-12	0.9318	n/a	3/21/2023	0.1ND	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-14	0.9318	n/a	3/21/2023	0.881	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-16	0.9318	n/a	3/20/2023	0.316	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-16L	0.9318	n/a	3/20/2023	0.338	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	**MW-18**	**0.9318**	**n/a**	**3/20/2023**	**2.29**	**Yes**	**32**	**25**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-19	0.9318	n/a	3/21/2023	0.357	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-20	0.9318	n/a	3/21/2023	0.388	No	32	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-21	0.9318	n/a	3/20/2023	0.367	No	32	25	No	0.000...	Param Inter 1 of 2
Lead Total (mg/L)	MW-1A	0.0194	n/a	3/20/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-3L	0.0194	n/a	3/20/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-4	0.0194	n/a	3/21/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-4L	0.0194	n/a	3/21/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...

Prediction Limit

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Lead Total (mg/L)	MW-5	0.0194	n/a	3/20/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-11	0.0194	n/a	3/21/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-12	0.0194	n/a	3/21/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-14	0.0194	n/a	3/21/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-16	0.0194	n/a	3/20/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-16L	0.0194	n/a	3/20/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-18	0.0194	n/a	3/20/2023	0.005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-19	0.0194	n/a	3/21/2023	0.000544	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-20	0.0194	n/a	3/21/2023	0.000706	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lead Total (mg/L)	MW-21	0.0194	n/a	3/20/2023	0.0005ND	No	32	50	n/a	0.001717	NP Inter (normality) ...
Lithium Total (mg/L)	**MW-1A**	**0.07909**	**n/a**	**3/20/2023**	**0.0973**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-3L	0.07909	n/a	3/20/2023	0.0256	No	32	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	**MW-4**	**0.07909**	**n/a**	**3/21/2023**	**0.371**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	**MW-4L**	**0.07909**	**n/a**	**3/21/2023**	**0.464**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	**MW-5**	**0.07909**	**n/a**	**3/20/2023**	**0.0874**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	**MW-11**	**0.07909**	**n/a**	**3/21/2023**	**0.453**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-12	0.07909	n/a	3/21/2023	0.0547	No	32	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	**MW-14**	**0.07909**	**n/a**	**3/21/2023**	**0.177**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-16	0.07909	n/a	3/20/2023	0.0682	No	32	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	MW-16L	0.07909	n/a	3/20/2023	0.0202	No	32	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	**MW-18**	**0.07909**	**n/a**	**3/20/2023**	**0.685**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-19	0.07909	n/a	3/21/2023	0.0238	No	32	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	MW-20	0.07909	n/a	3/21/2023	0.0256	No	32	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	MW-21	0.07909	n/a	3/20/2023	0.0226	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-1A	76.56	n/a	3/20/2023	43.9	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-3L	76.56	n/a	3/20/2023	44.9	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-4	76.56	n/a	3/21/2023	0.25ND	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-4L	76.56	n/a	3/21/2023	0.25ND	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	**MW-5**	**76.56**	**n/a**	**3/20/2023**	**177**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Magnesium (mg/L)	MW-11	76.56	n/a	3/21/2023	0.25ND	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-12	76.56	n/a	3/21/2023	57	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	**MW-14**	**76.56**	**n/a**	**3/21/2023**	**125**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Magnesium (mg/L)	**MW-16**	**76.56**	**n/a**	**3/20/2023**	**87.4**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Magnesium (mg/L)	MW-16L	76.56	n/a	3/20/2023	34	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-18	76.56	n/a	3/20/2023	2.5ND	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-19	76.56	n/a	3/21/2023	34.7	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-20	76.56	n/a	3/21/2023	31.8	No	32	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-21	76.56	n/a	3/20/2023	35.2	No	32	0	No	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-1A	2.401	n/a	3/20/2023	0.0231	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-3L	2.401	n/a	3/20/2023	0.195	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-4	2.401	n/a	3/21/2023	0.0177	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-4L	2.401	n/a	3/21/2023	0.005ND	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-5	2.401	n/a	3/20/2023	0.583	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-11	2.401	n/a	3/21/2023	0.005ND	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-12	2.401	n/a	3/21/2023	1.36	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-14	2.401	n/a	3/21/2023	0.34	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-16	2.401	n/a	3/20/2023	0.0339	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-16L	2.401	n/a	3/20/2023	0.0784	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-18	2.401	n/a	3/20/2023	0.05ND	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-19	2.401	n/a	3/21/2023	0.05	No	32	0	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Manganese Total (mg/L)	MW-20	2.401	n/a	3/21/2023	0.005ND	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-21	2.401	n/a	3/20/2023	0.022	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Molybdenum Total (mg/L)	MW-1A	0.0228	n/a	3/20/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-3L	0.0228	n/a	3/20/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	**MW-4**	**0.0228**	**n/a**	**3/21/2023**	**0.109**	**Yes**	**32**	**59.38**	**n/a**	**0.001717**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	**MW-4L**	**0.0228**	**n/a**	**3/21/2023**	**0.124**	**Yes**	**32**	**59.38**	**n/a**	**0.001717**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	MW-5	0.0228	n/a	3/20/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	**MW-11**	**0.0228**	**n/a**	**3/21/2023**	**0.107**	**Yes**	**32**	**59.38**	**n/a**	**0.001717**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	MW-12	0.0228	n/a	3/21/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	**MW-14**	**0.0228**	**n/a**	**3/21/2023**	**0.0789**	**Yes**	**32**	**59.38**	**n/a**	**0.001717**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	MW-16	0.0228	n/a	3/20/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-16L	0.0228	n/a	3/20/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	**MW-18**	**0.0228**	**n/a**	**3/20/2023**	**0.222**	**Yes**	**32**	**59.38**	**n/a**	**0.001717**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	MW-19	0.0228	n/a	3/21/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-20	0.0228	n/a	3/21/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-21	0.0228	n/a	3/20/2023	0.002ND	No	32	59.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-1A	0.864	n/a	3/20/2023	0.005ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-3L	0.864	n/a	3/20/2023	0.005ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-4	0.864	n/a	3/21/2023	0.00905	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-4L	0.864	n/a	3/21/2023	0.00661	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-5	0.864	n/a	3/20/2023	0.05ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-11	0.864	n/a	3/21/2023	0.00853	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-12	0.864	n/a	3/21/2023	0.00889	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-14	0.864	n/a	3/21/2023	0.00598	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-16	0.864	n/a	3/20/2023	0.05ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-16L	0.864	n/a	3/20/2023	0.005ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-18	0.864	n/a	3/20/2023	0.05ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-19	0.864	n/a	3/21/2023	0.005ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-20	0.864	n/a	3/21/2023	0.005ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-21	0.864	n/a	3/20/2023	0.005ND	No	32	65.63	n/a	0.001717	NP Inter (NDs) 1 of 2
Nitrate (mg/L)	MW-1A	3.86	n/a	3/20/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-3L	3.86	n/a	3/20/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-4	3.86	n/a	3/21/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-4L	3.86	n/a	3/21/2023	0.258	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-5	3.86	n/a	3/20/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-11	3.86	n/a	3/21/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-12	3.86	n/a	3/21/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-14	3.86	n/a	3/21/2023	1.62	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-16	3.86	n/a	3/20/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-16L	3.86	n/a	3/20/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-18	3.86	n/a	3/20/2023	0.999	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-19	3.86	n/a	3/21/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-20	3.86	n/a	3/21/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrate (mg/L)	MW-21	3.86	n/a	3/20/2023	0.1ND	No	32	40.63	n/a	0.001717	NP Inter (normality) ...
Nitrite (mg/L)	MW-1A	1.046	n/a	3/20/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-3L	1.046	n/a	3/20/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-4	1.046	n/a	3/21/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-4L	1.046	n/a	3/21/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-5	1.046	n/a	3/20/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-11	1.046	n/a	3/21/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Nitrite (mg/L)	MW-12	1.046	n/a	3/21/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-14	1.046	n/a	3/21/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-16	1.046	n/a	3/20/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-16L	1.046	n/a	3/20/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-18	1.046	n/a	3/20/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-19	1.046	n/a	3/21/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-20	1.046	n/a	3/21/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-21	1.046	n/a	3/20/2023	Tk*=0.1...	No	20	100	n/a	0.01	Poisson Inter (NDs)
pH (n/a)	MW-1A	10.34	6.9	3/20/2023	7	No	32	0	n/a	0.003434	NP Inter (normality) ...
pH (n/a)	**MW-3L**	**10.34**	**6.9**	**3/20/2023**	**6.72**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	**MW-4**	**10.34**	**6.9**	**3/21/2023**	**11.19**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	**MW-4L**	**10.34**	**6.9**	**3/21/2023**	**10.88**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	**MW-5**	**10.34**	**6.9**	**3/20/2023**	**6.38**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	**MW-11**	**10.34**	**6.9**	**3/21/2023**	**11.08**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	MW-12	10.34	6.9	3/21/2023	7.04	No	32	0	n/a	0.003434	NP Inter (normality) ...
pH (n/a)	MW-14	10.34	6.9	3/21/2023	7.29	No	32	0	n/a	0.003434	NP Inter (normality) ...
pH (n/a)	**MW-16**	**10.34**	**6.9**	**3/20/2023**	**6.8**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	**MW-16L**	**10.34**	**6.9**	**3/20/2023**	**6.72**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	**MW-18**	**10.34**	**6.9**	**3/20/2023**	**10.76**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	**MW-19**	**10.34**	**6.9**	**3/21/2023**	**6.78**	**Yes**	**32**	**0**	**n/a**	**0.003434**	**NP Inter (normality) ...**
pH (n/a)	MW-20	10.34	6.9	3/21/2023	7.32	No	32	0	n/a	0.003434	NP Inter (normality) ...
pH (n/a)	MW-21	10.34	6.9	3/20/2023	7.18	No	32	0	n/a	0.003434	NP Inter (normality) ...
Phosphorus (mg/L)	MW-1A	2.56	n/a	3/20/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-3L	2.56	n/a	3/20/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-4	2.56	n/a	3/21/2023	0.28	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-4L	2.56	n/a	3/21/2023	0.199	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-5	2.56	n/a	3/20/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-11	2.56	n/a	3/21/2023	0.247	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-12	2.56	n/a	3/21/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-14	2.56	n/a	3/21/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-16	2.56	n/a	3/20/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-16L	2.56	n/a	3/20/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-18	2.56	n/a	3/20/2023	0.197	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-19	2.56	n/a	3/21/2023	0.16	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-20	2.56	n/a	3/21/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-21	2.56	n/a	3/20/2023	0.1ND	No	32	68.75	n/a	0.001717	NP Inter (NDs) 1 of 2
Potassium (mg/L)	MW-1A	15.28	n/a	3/20/2023	11.5	No	32	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	MW-3L	15.28	n/a	3/20/2023	5.9	No	32	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	**MW-4**	**15.28**	**n/a**	**3/21/2023**	**3420**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-4L**	**15.28**	**n/a**	**3/21/2023**	**4490**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-5**	**15.28**	**n/a**	**3/20/2023**	**292**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-11**	**15.28**	**n/a**	**3/21/2023**	**4040**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	MW-12	15.28	n/a	3/21/2023	13.7	No	32	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	**MW-14**	**15.28**	**n/a**	**3/21/2023**	**1870**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-16**	**15.28**	**n/a**	**3/20/2023**	**158**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	MW-16L	15.28	n/a	3/20/2023	4.05	No	32	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	**MW-18**	**15.28**	**n/a**	**3/20/2023**	**6970**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	MW-19	15.28	n/a	3/21/2023	4.54	No	32	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	MW-20	15.28	n/a	3/21/2023	5.38	No	32	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	MW-21	15.28	n/a	3/20/2023	3.48	No	32	0	No	0.000...	Param Inter 1 of 2

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sodium (mg/L)	MW-1A	584	n/a	3/20/2023	42.8	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-3L	584	n/a	3/20/2023	21.9	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-4	584	n/a	3/21/2023	228	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-4L	584	n/a	3/21/2023	305	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-5	584	n/a	3/20/2023	70.9	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-11	584	n/a	3/21/2023	261	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-12	584	n/a	3/21/2023	45.8	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-14	584	n/a	3/21/2023	308	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-16	584	n/a	3/20/2023	75.3	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-16L	584	n/a	3/20/2023	11.9	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-18	584	n/a	3/20/2023	442	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-19	584	n/a	3/21/2023	21.4	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-20	584	n/a	3/21/2023	15.5	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sodium (mg/L)	MW-21	584	n/a	3/20/2023	19.9	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-1A	2550	n/a	3/20/2023	798	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-3L	2550	n/a	3/20/2023	93	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	**MW-4**	**2550**	**n/a**	**3/21/2023**	**11850**	**Yes**	**32**	**0**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	**MW-4L**	**2550**	**n/a**	**3/21/2023**	**16500**	**Yes**	**32**	**0**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	**MW-5**	**2550**	**n/a**	**3/20/2023**	**4405**	**Yes**	**32**	**0**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	**MW-11**	**2550**	**n/a**	**3/21/2023**	**14710**	**Yes**	**32**	**0**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	MW-12	2550	n/a	3/21/2023	1286	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	**MW-14**	**2550**	**n/a**	**3/21/2023**	**8394**	**Yes**	**32**	**0**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	MW-16	2550	n/a	3/20/2023	2155	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-16L	2550	n/a	3/20/2023	671	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	**MW-18**	**2550**	**n/a**	**3/20/2023**	**15820**	**Yes**	**32**	**0**	**n/a**	**0.001717**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	MW-19	2550	n/a	3/21/2023	890	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-20	2550	n/a	3/21/2023	787	No	32	0	n/a	0.001717	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-21	2550	n/a	3/20/2023	1243	No	32	0	n/a	0.001717	NP Inter (normality) ...
Sulfate (mg/L)	MW-1A	183.8	n/a	3/20/2023	22.8	No	32	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-3L	183.8	n/a	3/20/2023	55.8	No	32	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	**MW-4**	**183.8**	**n/a**	**3/21/2023**	**2010**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-4L**	**183.8**	**n/a**	**3/21/2023**	**3220**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-5**	**183.8**	**n/a**	**3/20/2023**	**1050**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-11**	**183.8**	**n/a**	**3/21/2023**	**2540**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-12**	**183.8**	**n/a**	**3/21/2023**	**397**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-14**	**183.8**	**n/a**	**3/21/2023**	**3010**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-16**	**183.8**	**n/a**	**3/20/2023**	**593**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	MW-16L	183.8	n/a	3/20/2023	31.3	No	32	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	**MW-18**	**183.8**	**n/a**	**3/20/2023**	**3140**	**Yes**	**32**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	MW-19	183.8	n/a	3/21/2023	57.4	No	32	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-20	183.8	n/a	3/21/2023	37.2	No	32	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-21	183.8	n/a	3/20/2023	28.6	No	32	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-1A	1295	n/a	3/20/2023	338	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-3L	1295	n/a	3/20/2023	388	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**MW-4**	**1295**	**n/a**	**3/21/2023**	**8080**	**Yes**	**32**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**MW-4L**	**1295**	**n/a**	**3/21/2023**	**7300**	**Yes**	**32**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**MW-5**	**1295**	**n/a**	**3/20/2023**	**2700**	**Yes**	**32**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**MW-11**	**1295**	**n/a**	**3/21/2023**	**9440**	**Yes**	**32**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-12	1295	n/a	3/21/2023	720	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**MW-14**	**1295**	**n/a**	**3/21/2023**	**6290**	**Yes**	**32**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	**MW-16**	**1295**	**n/a**	**3/20/2023**	**1380**	**Yes**	**32**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-16L	1295	n/a	3/20/2023	268	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**MW-18**	**1295**	**n/a**	**3/20/2023**	**8700**	**Yes**	**32**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-19	1295	n/a	3/21/2023	404	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-20	1295	n/a	3/21/2023	324	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-21	1295	n/a	3/20/2023	358	No	32	0	ln(x)	0.000...	Param Inter 1 of 2
Vanadium Total (mg/L)	MW-1A	0.0304	n/a	3/20/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-3L	0.0304	n/a	3/20/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-4	0.0304	n/a	3/21/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-4L	0.0304	n/a	3/21/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-5	0.0304	n/a	3/20/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-11	0.0304	n/a	3/21/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-12	0.0304	n/a	3/21/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-14	0.0304	n/a	3/21/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-16	0.0304	n/a	3/20/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-16L	0.0304	n/a	3/20/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-18	0.0304	n/a	3/20/2023	0.05ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-19	0.0304	n/a	3/21/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-20	0.0304	n/a	3/21/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-21	0.0304	n/a	3/20/2023	0.005ND	No	32	84.38	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-1A	0.307	n/a	3/20/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-3L	0.307	n/a	3/20/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-4	0.307	n/a	3/21/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-4L	0.307	n/a	3/21/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-5	0.307	n/a	3/20/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-11	0.307	n/a	3/21/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-12	0.307	n/a	3/21/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-14	0.307	n/a	3/21/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-16	0.307	n/a	3/20/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-16L	0.307	n/a	3/20/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-18	0.307	n/a	3/20/2023	0.2ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-19	0.307	n/a	3/21/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-20	0.307	n/a	3/21/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-21	0.307	n/a	3/20/2023	0.02ND	No	32	81.25	n/a	0.001717	NP Inter (NDs) 1 of 2

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Summary Report

Constituent: Aluminum Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 34%
Wells = 3
Minimum Value = 0.012
Maximum Value = 4.04
Mean Value = 0.3662
Median Value = 0.0951
Standard Deviation = 0.7639
Coefficient of Variation = 2.086
Skewness = 3.667

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	58%	0.012	0.517	0.09969	0.05	0.134	1.344	2.812
MW-13 (bg)	11	0%	0.0565	4.04	0.8879	0.324	1.219	1.373	1.766
MW-15 (bg)	12	41%	0.0296	0.541	0.1547	0.05	0.1887	1.22	1.41

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Summary Report

Constituent: Antimony Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 85%
Wells = 3
Minimum Value = 0.00051
Maximum Value = 0.015
Mean Value = 0.003465
Median Value = 0.002
Standard Deviation = 0.004841
Coefficient of Variation = 1.397
Skewness = 1.936

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	66%	0.00053	0.015	0.003912	0.00184	0.005239	1.339	1.7
MW-13 (bg)	11	90%	0.00053	0.015	0.002844	0.002	0.004146	1.458	2.583
MW-15 (bg)	12	100%	0.00051	0.015	0.003587	0.0015	0.005361	1.495	1.744

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Summary Report

Constituent: Arsenic Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 91%
Wells = 3
Minimum Value = 0.00075
Maximum Value = 0.01
Mean Value = 0.003167
Median Value = 0.002
Standard Deviation = 0.003042
Coefficient of Variation = 0.9606
Skewness = 1.71

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	100%	0.00075	0.01	0.003136	0.002	0.003238	1.033	1.706
MW-13 (bg)	11	81%	0.0013	0.01	0.003233	0.002	0.002896	0.8957	1.715
MW-15 (bg)	12	91%	0.00075	0.01	0.003137	0.002	0.003238	1.032	1.706

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Summary Report

Constituent: Barium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 0.0436
Maximum Value = 0.161
Mean Value = 0.09316
Median Value = 0.0828
Standard Deviation = 0.03567
Coefficient of Variation = 0.3829
Skewness = 0.639

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	0.0828	0.161	0.1291	0.1415	0.02887	0.2236	-0.5166
MW-13 (bg)	11	0%	0.0436	0.136	0.08585	0.0828	0.02745	0.3197	0.2088
MW-15 (bg)	12	0%	0.0552	0.0706	0.0639	0.0634	0.004005	0.06268	-0.3311

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Summary Report

Constituent: Beryllium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 97%
Wells = 3
Minimum Value = 0.00027
Maximum Value = 0.004
Mean Value = 0.0009606
Median Value = 0.001
Standard Deviation = 0.0005976
Coefficient of Variation = 0.6221
Skewness = 3.65

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	91%	0.00027	0.001	0.0008783	0.001	0.0002842	0.3235	-1.789
MW-13 (bg)	11	100%	0.00027	0.004	0.00114	0.001	0.0009925	0.8706	2.366
MW-15 (bg)	12	100%	0.00027	0.001	0.0008783	0.001	0.0002842	0.3235	-1.789

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Summary Report

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 9/26/2023, a summary of the selected data set:

Observations = 15
NDs = 0%
Wells = 3
Minimum Value = 59.4
Maximum Value = 409
Mean Value = 310.6
Median Value = 365
Standard Deviation = 120.3
Coefficient of Variation = 0.3872
Skewness = -1.159

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	5	0%	59.4	402	266.5	349	150.8	0.5661	-0.5054
MW-13 (bg)	5	0%	89	365	271.8	336	121.3	0.4463	-0.7139
MW-15 (bg)	5	0%	371	409	393.4	392	16.16	0.04109	-0.2683

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Summary Report

Constituent: Boron Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 11%
Wells = 3
Minimum Value = 0.1
Maximum Value = 1.04
Mean Value = 0.4858
Median Value = 0.4
Standard Deviation = 0.3371
Coefficient of Variation = 0.6939
Skewness = 0.4755

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	25%	0.1	0.202	0.172	0.189	0.03871	0.2251	-1.113
MW-13 (bg)	11	9%	0.126	0.476	0.353	0.4	0.1099	0.3113	-1.014
MW-15 (bg)	12	0%	0.767	1.04	0.9214	0.941	0.08231	0.08933	-0.8022

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Summary Report

Constituent: Bromate Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/18/2021 and 9/26/2023, a summary of the selected data set:

Observations = 14
NDs = 92%
Wells = 3
Minimum Value = 5
Maximum Value = 1000
Mean Value = 290.1
Median Value = 10
Standard Deviation = 422.7
Coefficient of Variation = 1.457
Skewness = 0.938

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	5	80%	5	1000	304.3	11.3	443.7	1.458	0.8499
MW-13 (bg)	4	100%	5	1000	255	7.5	496.7	1.948	1.155
MW-15 (bg)	5	100%	5	1000	304	10	443.9	1.46	0.8496

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Summary Report

Constituent: Cadmium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 80%
Wells = 3
Minimum Value = 0.000039
Maximum Value = 0.005
Mean Value = 0.0009288
Median Value = 0.0002
Standard Deviation = 0.001695
Coefficient of Variation = 1.825
Skewness = 1.997

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	83%	0.000049	0.005	0.001039	0.000267	0.001858	1.789	1.754
MW-13 (bg)	11	72%	0.0001	0.005	0.0007096	0.000214	0.001435	2.021	2.763
MW-15 (bg)	12	83%	0.000039	0.005	0.00102	0.000159	0.001868	1.831	1.754

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Summary Report

Constituent: Calcium Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 51.4
Maximum Value = 473
Mean Value = 104.8
Median Value = 84.5
Standard Deviation = 83.23
Coefficient of Variation = 0.7939
Skewness = 3.524

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	51.4	86.2	71.68	74.05	11.93	0.1664	-0.6221
MW-13 (bg)	11	0%	55.7	473	160.4	101	134.8	0.8401	1.572
MW-15 (bg)	12	0%	73.4	111	87.05	86.2	11.37	0.1306	0.695

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Summary Report

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 9/16/2021 and 9/26/2023, a summary of the selected data set:

Observations = 15
NDs = 100%
Wells = 3
Minimum Value = 5
Maximum Value = 20
Mean Value = 10
Median Value = 10
Standard Deviation = 5.669
Coefficient of Variation = 0.5669
Skewness = 0.9129

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	5	100%	5	20	10	10	6.124	0.6124	0.9129
MW-13 (bg)	5	100%	5	20	10	10	6.124	0.6124	0.9129
MW-15 (bg)	5	100%	5	20	10	10	6.124	0.6124	0.9129

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Summary Report

Constituent: Chloride Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 8%
Wells = 3
Minimum Value = 1
Maximum Value = 683
Mean Value = 84.5
Median Value = 14.3
Standard Deviation = 171.4
Coefficient of Variation = 2.028
Skewness = 2.654

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	25%	1	7.89	3.692	3.275	2.362	0.6397	0.3285
MW-13 (bg)	11	0%	35.6	683	247	172	239.5	0.9695	1.001
MW-15 (bg)	12	0%	8.11	24.9	16.35	16.55	6.356	0.3888	0.01856

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Summary Report

Constituent: Chromium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 88%
Wells = 3
Minimum Value = 0.00098
Maximum Value = 0.00578
Mean Value = 0.004424
Median Value = 0.005
Standard Deviation = 0.001368
Coefficient of Variation = 0.3092
Skewness = -1.912

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	100%	0.00098	0.005	0.00434	0.005	0.001542	0.3552	-1.79
MW-13 (bg)	11	63%	0.00191	0.00578	0.004607	0.005	0.001038	0.2253	-1.743
MW-15 (bg)	12	100%	0.00098	0.005	0.00434	0.005	0.001542	0.3552	-1.79

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Summary Report

Constituent: Cobalt Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 28%
Wells = 3
Minimum Value = 0.000115
Maximum Value = 0.00827
Mean Value = 0.00184
Median Value = 0.00102
Standard Deviation = 0.001993
Coefficient of Variation = 1.083
Skewness = 1.601

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	41%	0.000115	0.005	0.00129	0.0005855	0.001742	1.35	1.746
MW-13 (bg)	11	9%	0.000857	0.00827	0.002807	0.00148	0.002367	0.8434	1.292
MW-15 (bg)	12	33%	0.000284	0.005	0.001503	0.001025	0.001663	1.106	1.649

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Summary Report

Constituent: Copper Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 82%
Wells = 3
Minimum Value = 0.0015
Maximum Value = 0.0305
Mean Value = 0.006792
Median Value = 0.005
Standard Deviation = 0.00518
Coefficient of Variation = 0.7627
Skewness = 3.03

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	91%	0.0015	0.01	0.005588	0.005	0.002693	0.4819	0.3987
MW-13 (bg)	11	63%	0.005	0.0305	0.009676	0.005	0.007928	0.8193	1.868
MW-15 (bg)	12	91%	0.0015	0.01	0.005352	0.005	0.002528	0.4723	0.6222

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Summary Report

Constituent: Fluoride Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 25%
Wells = 3
Minimum Value = 0.0719
Maximum Value = 0.876
Mean Value = 0.3786
Median Value = 0.389
Standard Deviation = 0.2164
Coefficient of Variation = 0.5717
Skewness = 0.1613

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	41%	0.1	0.5	0.2474	0.2015	0.1459	0.5898	0.7414
MW-13 (bg)	11	36%	0.0719	0.636	0.3144	0.274	0.1926	0.6126	0.2377
MW-15 (bg)	12	0%	0.145	0.876	0.5686	0.596	0.1658	0.2915	-0.9731

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Summary Report

Constituent: Lead Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 51%
Wells = 3
Minimum Value = 0.000132
Maximum Value = 0.0194
Mean Value = 0.003169
Median Value = 0.0005
Standard Deviation = 0.004737
Coefficient of Variation = 1.495
Skewness = 1.735

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	58%	0.000132	0.01	0.002075	0.0005	0.003704	1.785	1.782
MW-13 (bg)	11	36%	0.0005	0.0194	0.005368	0.0016	0.006227	1.16	1.125
MW-15 (bg)	12	58%	0.000357	0.01	0.002246	0.0005	0.00365	1.625	1.732

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Summary Report

Constituent: Lithium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 0.0114
Maximum Value = 0.0811
Mean Value = 0.04097
Median Value = 0.0383
Standard Deviation = 0.01752
Coefficient of Variation = 0.4277
Skewness = 0.2665

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	0.0215	0.0811	0.03462	0.02645	0.01732	0.5004	1.804
MW-13 (bg)	11	0%	0.0114	0.0422	0.02906	0.0316	0.01076	0.3702	-0.4368
MW-15 (bg)	12	0%	0.049	0.067	0.05823	0.05895	0.00573	0.09842	-0.05886

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Summary Report

Constituent: Magnesium Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 3.7
Maximum Value = 77.6
Mean Value = 40.64
Median Value = 44.2
Standard Deviation = 15.36
Coefficient of Variation = 0.378
Skewness = -0.5109

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	3.7	47	35.18	40.6	14.39	0.409	-1.112
MW-13 (bg)	11	0%	8.6	77.6	35.77	37.1	18.92	0.5288	0.6544
MW-15 (bg)	12	0%	41.9	60.1	50.55	49.75	5.817	0.1151	0.2646

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Summary Report

Constituent: Manganese Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 2%
Wells = 3
Minimum Value = 0.005
Maximum Value = 2.42
Mean Value = 0.2947
Median Value = 0.159
Standard Deviation = 0.4868
Coefficient of Variation = 1.652
Skewness = 3.189

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	8%	0.005	0.197	0.1292	0.1585	0.06481	0.5016	-0.8544
MW-13 (bg)	11	0%	0.143	2.42	0.6885	0.328	0.7388	1.073	1.407
MW-15 (bg)	12	0%	0.0219	0.258	0.0993	0.0907	0.07389	0.7441	0.849

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Summary Report

Constituent: Molybdenum Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 57%
Wells = 3
Minimum Value = 0.0011
Maximum Value = 0.0228
Mean Value = 0.006022
Median Value = 0.002
Standard Deviation = 0.006829
Coefficient of Variation = 1.134
Skewness = 1.42

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	75%	0.0011	0.02	0.005182	0.002	0.006958	1.343	1.748
MW-13 (bg)	11	18%	0.002	0.0228	0.00808	0.00652	0.006617	0.819	1.001
MW-15 (bg)	12	75%	0.0011	0.02	0.004976	0.002	0.007053	1.417	1.75

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Summary Report

Constituent: Nickel Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 65%
Wells = 3
Minimum Value = 0.0017
Maximum Value = 0.864
Mean Value = 0.03056
Median Value = 0.005
Standard Deviation = 0.1451
Coefficient of Variation = 4.748
Skewness = 5.652

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	83%	0.0017	0.864	0.07613	0.005	0.2481	3.259	3.015
MW-13 (bg)	11	18%	0.005	0.0228	0.009276	0.00571	0.006059	0.6532	1.239
MW-15 (bg)	12	91%	0.0017	0.005	0.004485	0.005	0.001206	0.2689	-1.811

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Summary Report

Constituent: Nitrate Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 42%
Wells = 3
Minimum Value = 0.046
Maximum Value = 5.62
Mean Value = 0.621
Median Value = 0.1
Standard Deviation = 1.282
Coefficient of Variation = 2.064
Skewness = 2.708

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	25%	0.05	5.62	1.491	0.24	1.939	1.301	1.013
MW-13 (bg)	11	36%	0.046	0.862	0.2401	0.149	0.2286	0.9522	1.992
MW-15 (bg)	12	66%	0.046	0.2	0.1001	0.1	0.03644	0.3642	1.52

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Summary Report

Constituent: Nitrite Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/26/2020 and 9/26/2023, a summary of the selected data set:

Observations = 23
NDs = 100%
Wells = 3
Minimum Value = 0.039
Maximum Value = 0.2
Mean Value = 0.1039
Median Value = 0.1
Standard Deviation = 0.05102
Coefficient of Variation = 0.491
Skewness = 0.7167

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	8	100%	0.039	0.2	0.1168	0.1	0.05412	0.4635	0.5421
MW-13 (bg)	7	100%	0.039	0.2	0.09686	0.1	0.05381	0.5556	0.8204
MW-15 (bg)	8	100%	0.039	0.2	0.09725	0.1	0.04983	0.5124	0.8512

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Summary Report

Constituent: pH Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 6.9
Maximum Value = 10.34
Mean Value = 7.778
Median Value = 7.47
Standard Deviation = 0.8925
Coefficient of Variation = 0.1147
Skewness = 1.721

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	7.23	10.34	8.115	7.535	1.135	0.1398	1.23
MW-13 (bg)	11	0%	6.9	9.89	7.765	7.5	0.8716	0.1122	1.347
MW-15 (bg)	12	0%	6.95	8.77	7.452	7.3	0.4935	0.06623	1.656

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Summary Report

Constituent: Phosphorus Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 71%
Wells = 3
Minimum Value = 0.041
Maximum Value = 2.56
Mean Value = 0.1852
Median Value = 0.1
Standard Deviation = 0.4194
Coefficient of Variation = 2.265
Skewness = 5.411

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	75%	0.0419	0.1	0.08814	0.1	0.02191	0.2486	-1.296
MW-13 (bg)	11	54%	0.1	2.56	0.3923	0.1	0.7269	1.853	2.737
MW-15 (bg)	12	83%	0.041	0.1	0.09243	0.1	0.01813	0.1962	-2.249

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Summary Report

Constituent: Potassium Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 3.68
Maximum Value = 16.7
Mean Value = 8.359
Median Value = 8.34
Standard Deviation = 3.287
Coefficient of Variation = 0.3932
Skewness = 0.8639

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	3.68	16.7	8.199	5.445	5.155	0.6288	0.7938
MW-13 (bg)	11	0%	5.71	12.3	7.132	6.39	1.86	0.2608	2.165
MW-15 (bg)	12	0%	8.41	10.4	9.645	9.585	0.5757	0.05969	-0.7285

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Summary Report

Constituent: Selenium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 97%
Wells = 3
Minimum Value = 0.001
Maximum Value = 0.02
Mean Value = 0.006177
Median Value = 0.005
Standard Deviation = 0.004762
Coefficient of Variation = 0.771
Skewness = 1.443

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	100%	0.001	0.015	0.006	0.005	0.004472	0.7454	1.274
MW-13 (bg)	11	90%	0.001	0.02	0.006563	0.005	0.005733	0.8735	1.488
MW-15 (bg)	12	100%	0.001	0.015	0.006	0.005	0.004472	0.7454	1.274

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Summary Report

Constituent: Silver Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 100%
Wells = 3
Minimum Value = 0.00037
Maximum Value = 0.007
Mean Value = 0.001835
Median Value = 0.001
Standard Deviation = 0.002216
Coefficient of Variation = 1.208
Skewness = 1.828

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	100%	0.00037	0.007	0.001895	0.001	0.002397	1.265	1.747
MW-13 (bg)	11	100%	0.00037	0.007	0.001704	0.001	0.002009	1.179	1.986
MW-15 (bg)	12	100%	0.00037	0.007	0.001895	0.001	0.002397	1.265	1.747

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Summary Report

Constituent: Sodium Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 16
Maximum Value = 584
Mean Value = 74.23
Median Value = 36.8
Standard Deviation = 115.8
Coefficient of Variation = 1.56
Skewness = 3.195

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	16	26.9	19.9	19.3	3.216	0.1616	1.217
MW-13 (bg)	11	0%	34.1	584	173.3	103	172.1	0.993	1.44
MW-15 (bg)	12	0%	32.4	43.7	37.77	37.1	3.52	0.09321	0.03884

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Summary Report

Constituent: Specific conductivity Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 532
Maximum Value = 2550
Mean Value = 970.3
Median Value = 822
Standard Deviation = 457.4
Coefficient of Variation = 0.4714
Skewness = 2.182

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	532	758	680.3	692.5	66.51	0.09776	-0.8194
MW-13 (bg)	11	0%	822	2550	1357	1052	620.8	0.4575	0.9415
MW-15 (bg)	12	0%	673	1495	905.8	874.5	214.5	0.2368	1.735

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Summary Report

Constituent: Sulfate Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 21.8
Maximum Value = 196
Mean Value = 81.42
Median Value = 76.1
Standard Deviation = 43.22
Coefficient of Variation = 0.5308
Skewness = 0.6629

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	21.8	147	63.63	44.25	43.93	0.6905	0.6126
MW-13 (bg)	11	0%	46.9	157	68.95	61.3	31.7	0.4598	2.143
MW-15 (bg)	12	0%	67.1	196	110.6	106.5	38.69	0.3496	0.7386

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Summary Report

Constituent: Thallium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 100%
Wells = 3
Minimum Value = 0.00026
Maximum Value = 0.02
Mean Value = 0.003674
Median Value = 0.001
Standard Deviation = 0.006789
Coefficient of Variation = 1.848
Skewness = 2.011

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	100%	0.00026	0.02	0.004044	0.001	0.007458	1.844	1.783
MW-13 (bg)	11	100%	0.00026	0.02	0.002866	0.001	0.005769	2.013	2.705
MW-15 (bg)	12	100%	0.00026	0.02	0.004044	0.001	0.007458	1.844	1.783

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Summary Report

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 0%
Wells = 3
Minimum Value = 234
Maximum Value = 1680
Mean Value = 526.5
Median Value = 446
Standard Deviation = 268.7
Coefficient of Variation = 0.5103
Skewness = 2.725

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	0%	234	414	352.5	363	51.2	0.1453	-0.9368
MW-13 (bg)	11	0%	386	1680	752.2	594	381	0.5066	1.413
MW-15 (bg)	12	0%	422	577	493.8	488	58.17	0.1178	0.232

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Summary Report

Constituent: Vanadium Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 85%
Wells = 3
Minimum Value = 0.00082
Maximum Value = 0.0304
Mean Value = 0.006287
Median Value = 0.005
Standard Deviation = 0.004913
Coefficient of Variation = 0.7815
Skewness = 3.459

Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	91%	0.00082	0.01	0.00521	0.005	0.00266	0.5106	0.4635
MW-13 (bg)	11	63%	0.005	0.0304	0.008714	0.005	0.00751	0.8619	2.451
MW-15 (bg)	12	100%	0.00082	0.01	0.005139	0.005	0.002771	0.5392	0.3133

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Summary Report

Constituent: Zinc Total Analysis Run 11/22/2023 12:45 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

For observations made between 3/12/2018 and 9/26/2023, a summary of the selected data set:

Observations = 35
NDs = 82%
Wells = 3
Minimum Value = 0.01
Maximum Value = 0.307
Mean Value = 0.03449
Median Value = 0.02
Standard Deviation = 0.04977
Coefficient of Variation = 1.443
Skewness = 4.895

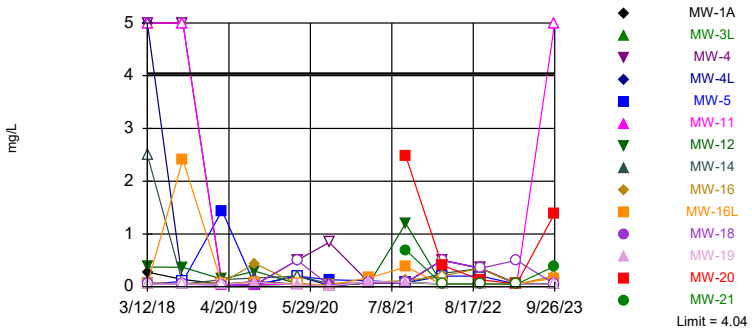
Well	#Obs.	NDs	Min	Max	Mean	Median	Std.Dev.	CV	Skewness
MW-7 (bg)	12	83%	0.01	0.05	0.02396	0.02	0.01252	0.5225	1.537
MW-13 (bg)	11	63%	0.02	0.307	0.05815	0.02	0.08464	1.455	2.607
MW-15 (bg)	12	100%	0.01	0.05	0.02333	0.02	0.01303	0.5583	1.413

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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 the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. 34.29% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

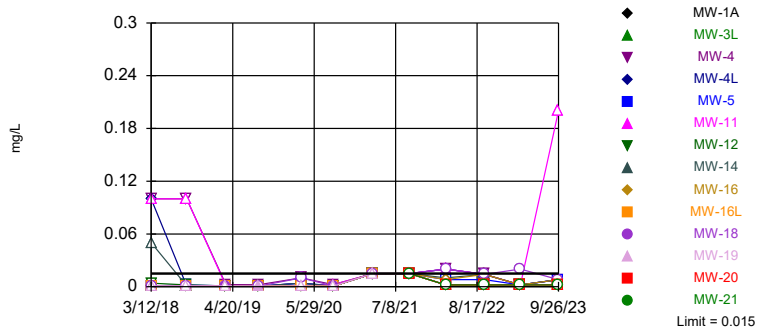
Constituent: Aluminum Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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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 35 background values. 85.71% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

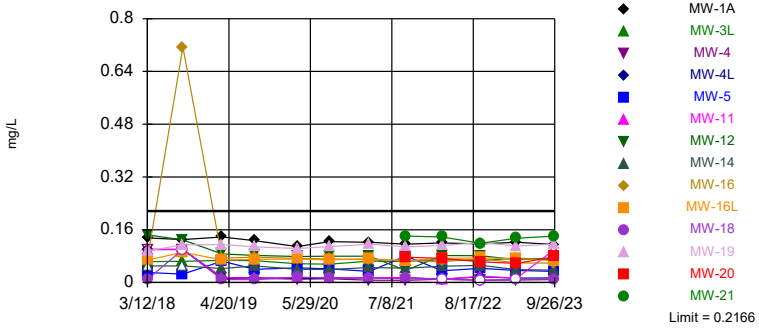
Constituent: Antimony Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-2.442, Std. Dev.=0.3711, n=35. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9224, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

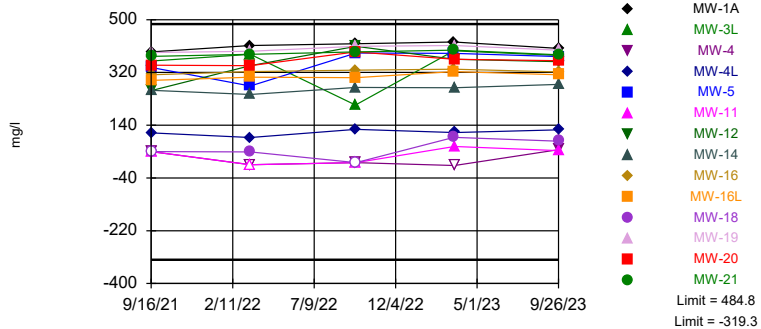
Constituent: Barium Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube transformation): Mean=4.1e7, Std. Dev.=2.5e7, n=15. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8458, critical = 0.835. Kappa = 2.932 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.00009755. Comparing 14 points to limit. Assumes 1 future value.

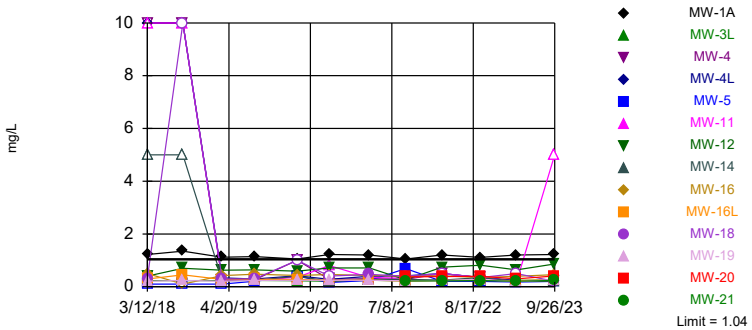
Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-1A

Prediction Limit

Interwell Non-parametric



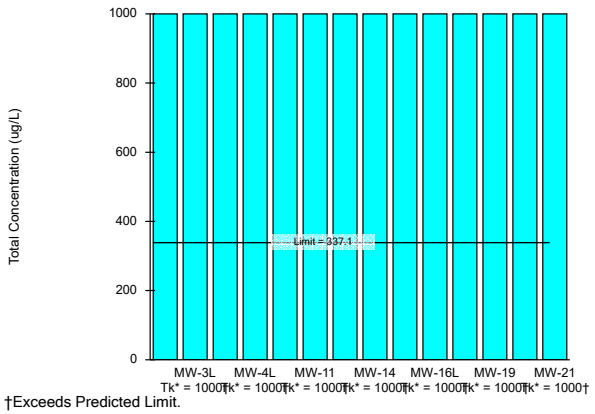
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. 11.43% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Boron Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1A,MW-3L,MW-4,MW-4L,MW-5,MW-7,MW-11,MW-12,MW-13,MW-14,MW-15,MW-1...



†Exceeds Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 92.86% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

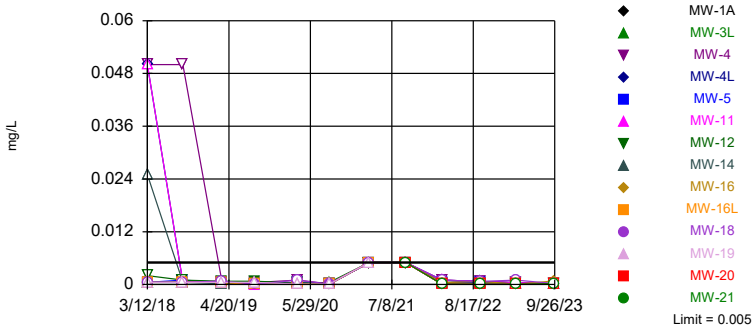
Constituent: Bromate Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 35 background values. 80% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

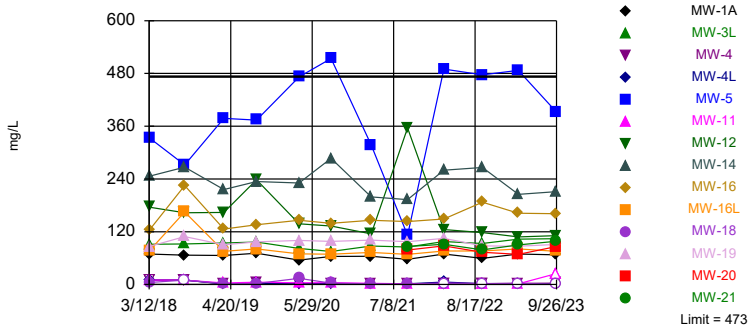
Constituent: Cadmium Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



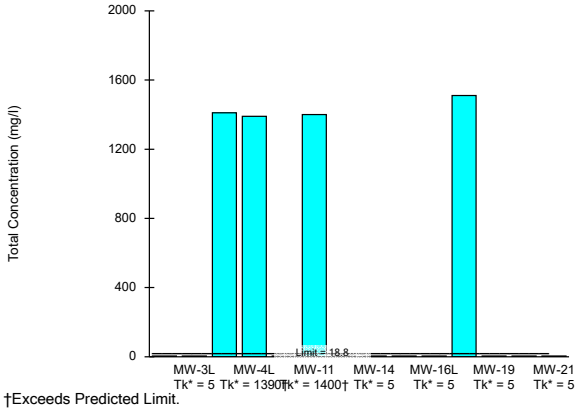
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 35 background values. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Calcium Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1A,MW-3L,MW-4,MW-4L,MW-5,MW-7,MW-11,MW-12,MW-13,MW-14,MW-15,MW-1...



†Exceeds Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 100% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

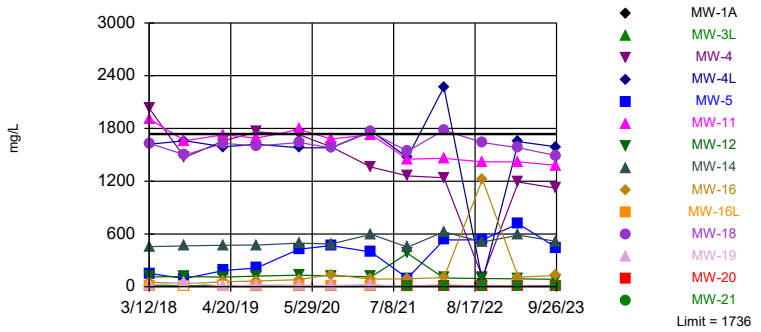
Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=2.828, Std. Dev.=1.885, n=35, 8.571% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9694, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

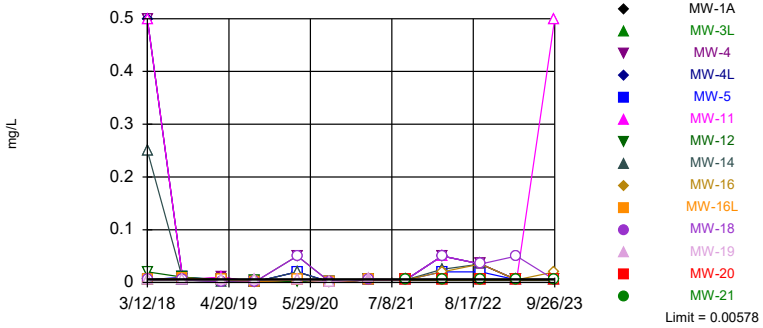
Constituent: Chloride Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 35 background values. 88.57% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

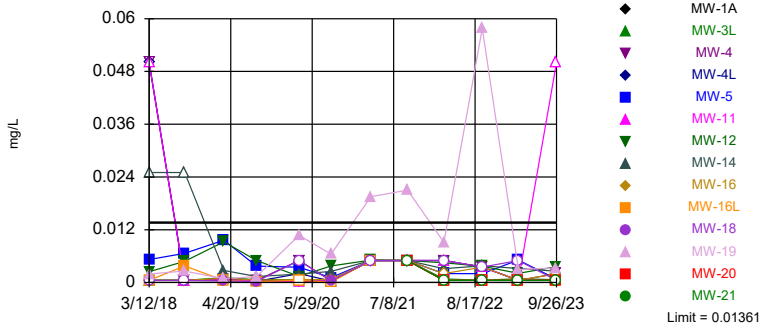
Constituent: Chromium Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-6.758, Std. Dev.=1.002, n=35, 28.57% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9199, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

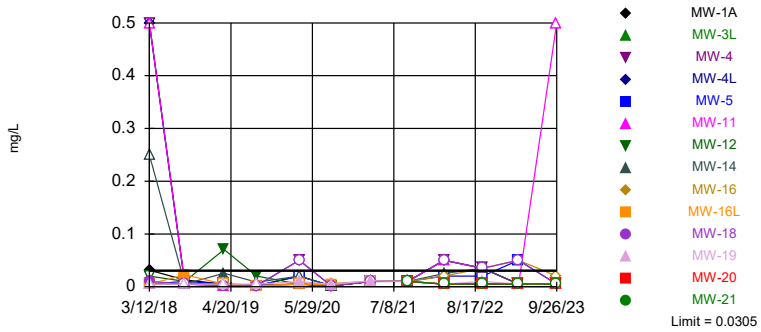
Constituent: Cobalt Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 35 background values. 82.86% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

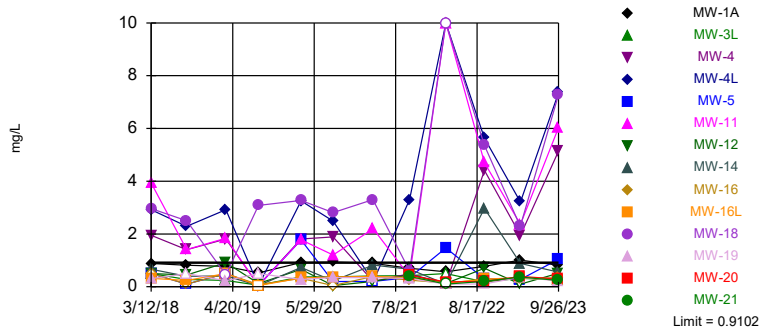
Constituent: Copper Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.3786, Std. Dev.=0.2164, n=35, 25.71% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9149, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

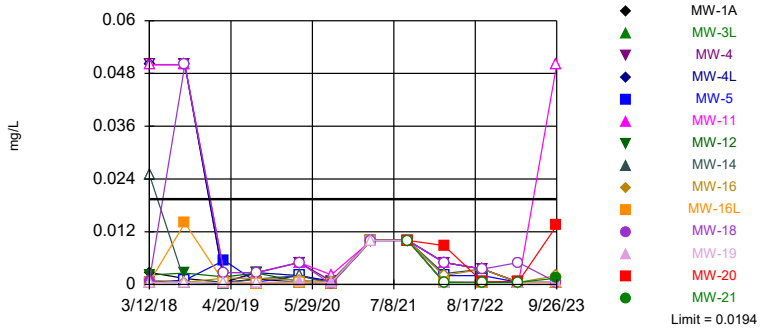
Constituent: Fluoride Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 35 background values. 51.43% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

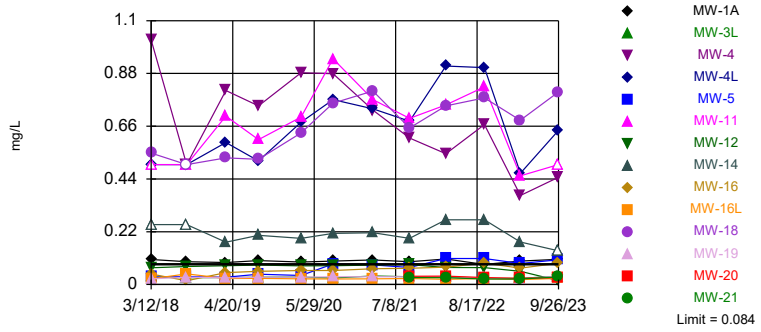
Constituent: Lead Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Exceeds Limit: MW-1A, MW-4, MW-4L, MW-5, MW-16, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.04097, Std. Dev.=0.01752, n=35. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9575, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

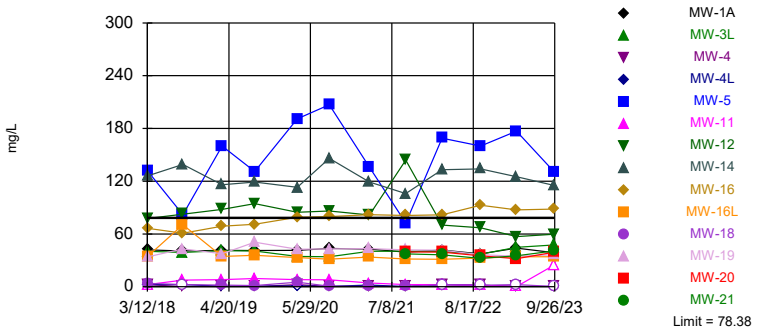
Constituent: Lithium Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-5, MW-14, MW-16

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=40.64, Std. Dev.=15.36, n=35. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9325, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

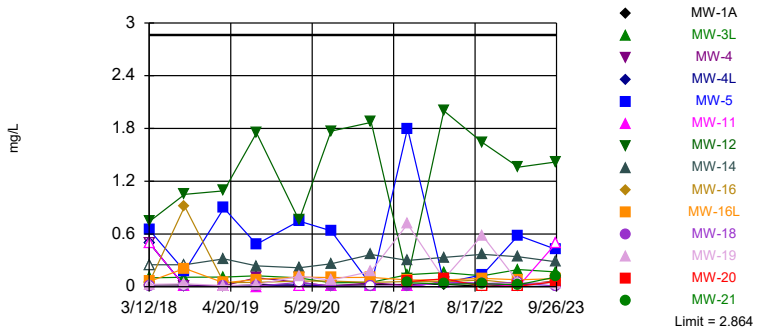
Constituent: Magnesium Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.949, Std. Dev.=1.222, n=35, 2.857% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9523, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

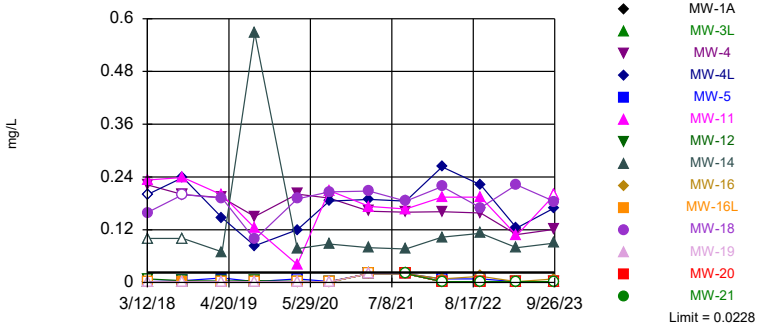
Constituent: Manganese Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Exceeds Limit: MW-4, MW-4L, MW-14, MW-18

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 35 background values. 57.14% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

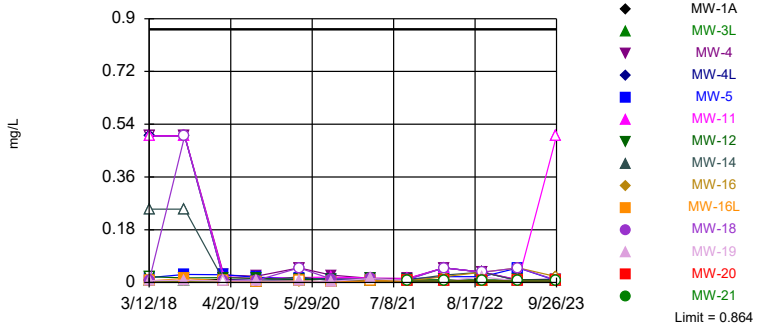
Constituent: Molybdenum Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

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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 35 background values. 65.71% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Nickel Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

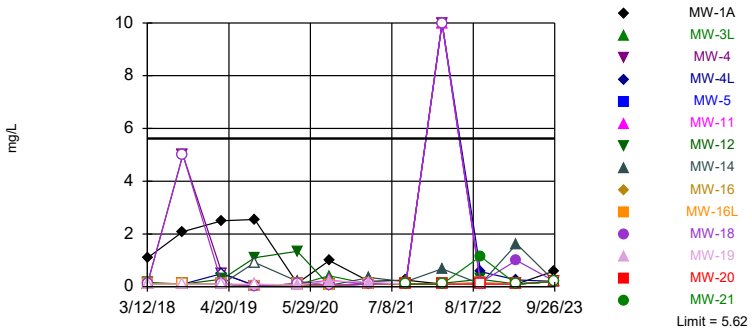
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell 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 35 background values. 42.86% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

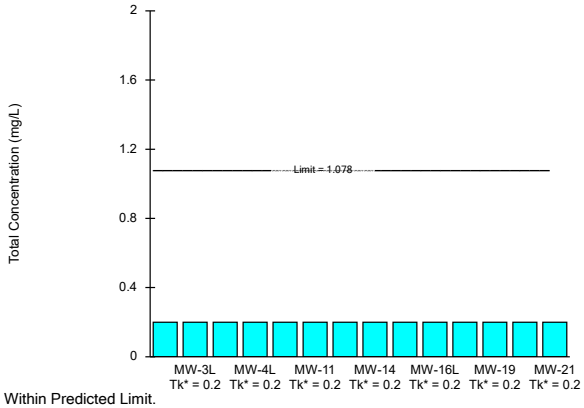
Constituent: Nitrate Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

Continental Cement Data: Import 1

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Poisson Prediction Limit

MW-1A,MW-3L,MW-4,MW-4L,MW-5,MW-7,MW-11,MW-12,MW-13,MW-14,MW-15,MW-1...



Within Predicted Limit.

Poisson test used in lieu of parametric prediction limit because censored data exceeded 90%. 100% NDs. Comparing 1 point per well to limit. Per-well alpha = 0.01.

Constituent: Nitrite Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

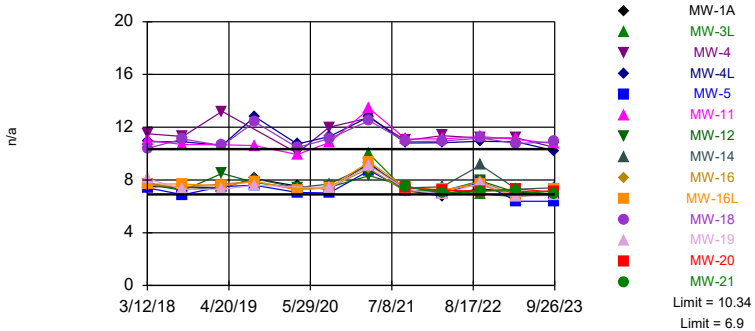
Continental Cement Data: Import 1

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Exceeds Limits: MW-4, MW-5, MW-11, MW-18, MW-19

Prediction Limit

Interwell 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. Limits are highest and lowest of 35 background values. Annual per-constituent alpha = 0.04268. Individual comparison alpha = 0.002874 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: pH Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

Continental Cement Data: Import 1

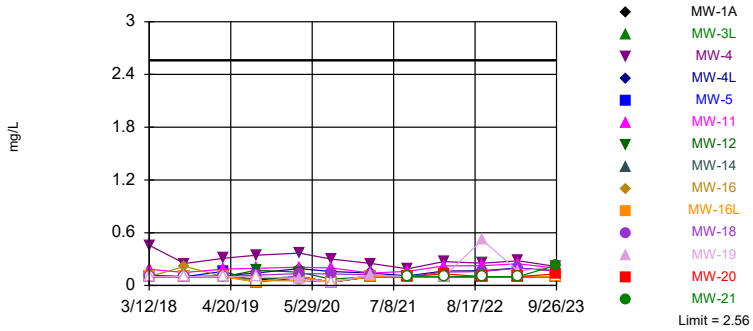
Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

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 35 background values. 71.43% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Phosphorus Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

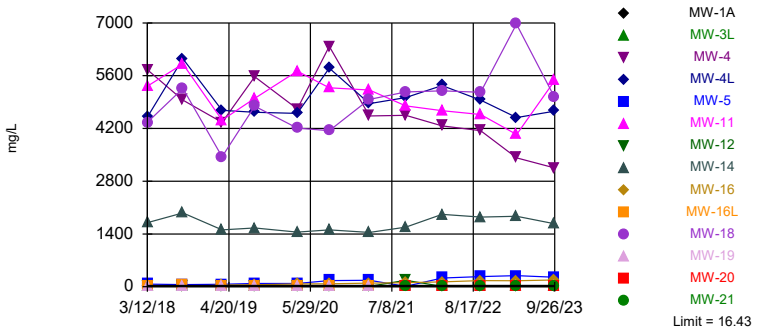
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-14, MW-16, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=8.359, Std. Dev.=3.287, n=35. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9182, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

Constituent: Potassium Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

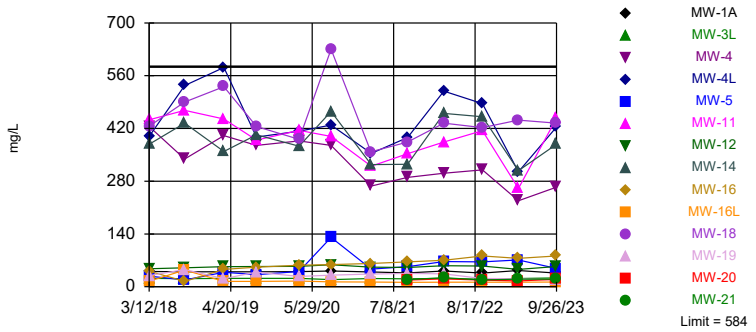
Continental Cement Data: Import 1

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Within Limit

Prediction Limit

Interwell 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 35 background values. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Sodium Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

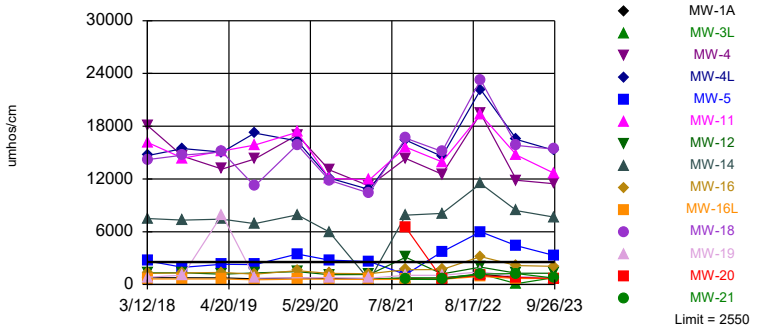
Continental Cement Data: Import 1

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Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-14, MW-18

Prediction Limit

Interwell 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 35 background values. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Specific conductivity Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

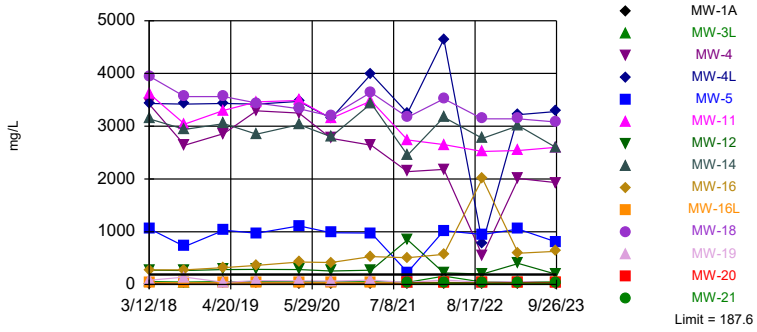
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-12, MW-14, MW-16, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=81.42, Std. Dev.=43.22, n=35. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9415, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

Constituent: Sulfate Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis

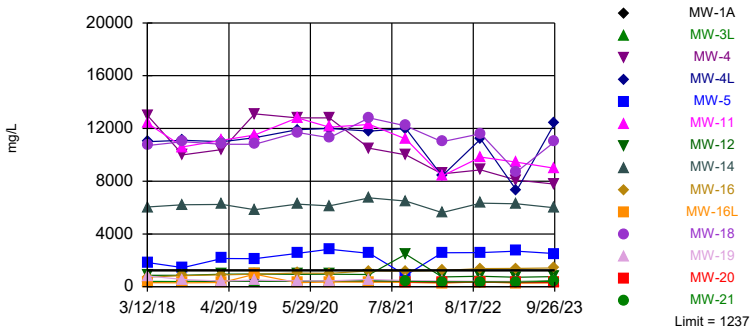
Continental Cement Data: Import 1

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Exceeds Limit: MW-4, MW-4L, MW-5, MW-11, MW-14, MW-16, MW-18

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=6.183, Std. Dev.=0.3816, n=35. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9118, critical = 0.91. Kappa = 2.457 (c=36, w=15, 1 of 2, event alpha = 0.1). Report alpha = 0.002922. Individual comparison alpha = 0.0001951. Comparing 14 points to limit. Assumes 1 future value.

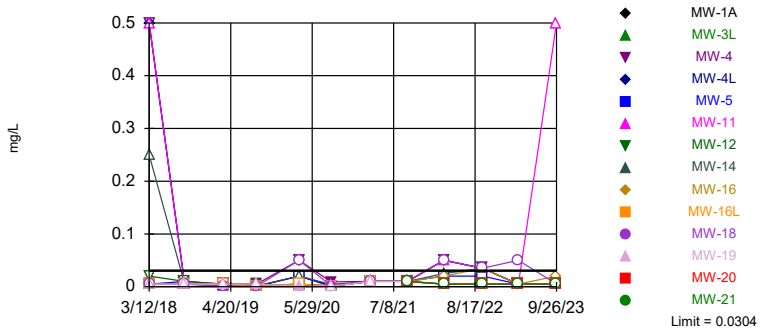
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysi
Continental Cement Data: Import 1

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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 35 background values. 85.71% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

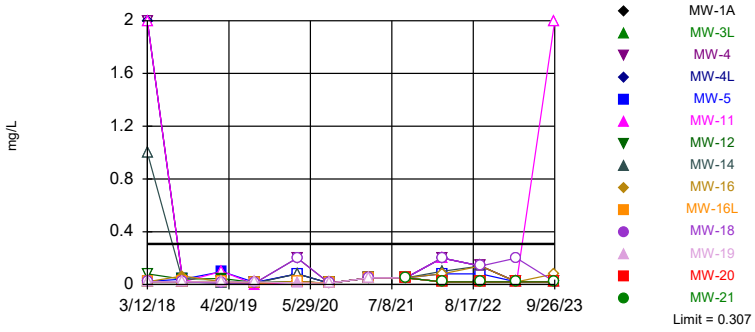
Constituent: Vanadium Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. 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 35 background values. 82.86% NDs. Annual per-constituent alpha = 0.02134. Individual comparison alpha = 0.001437 (1 of 2). Comparing 14 points to limit. Assumes 1 future value. Insufficient data to test for seasonality; data will not be deseasonalized.

Constituent: Zinc Total Analysis Run 11/22/2023 2:20 PM View: Deep GBZ Statistical Analysis
Continental Cement Data: Import 1

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Aluminum Total (mg/L)	MW-1A	4.04	n/a	9/26/2023	0.0606	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-3L	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-4	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-4L	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-5	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-11	4.04	n/a	9/26/2023	5ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-12	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-14	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-16	4.04	n/a	9/26/2023	0.2ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-16L	4.04	n/a	9/26/2023	0.162	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-18	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-19	4.04	n/a	9/26/2023	0.05ND	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-20	4.04	n/a	9/26/2023	1.39	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Aluminum Total (mg/L)	MW-21	4.04	n/a	9/26/2023	0.389	No	35	34.29	n/a	0.001437	NP Inter (normality) ...
Antimony Total (mg/L)	MW-1A	0.015	n/a	9/26/2023	0.002ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-3L	0.015	n/a	9/26/2023	0.002ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-4	0.015	n/a	9/26/2023	0.008ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-4L	0.015	n/a	9/26/2023	0.008ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-5	0.015	n/a	9/26/2023	0.008ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-11	0.015	n/a	9/26/2023	0.2ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-12	0.015	n/a	9/26/2023	0.002ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-14	0.015	n/a	9/26/2023	0.008ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-16	0.015	n/a	9/26/2023	0.008ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-16L	0.015	n/a	9/26/2023	0.002ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-18	0.015	n/a	9/26/2023	0.008ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-19	0.015	n/a	9/26/2023	0.002ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-20	0.015	n/a	9/26/2023	0.002ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Antimony Total (mg/L)	MW-21	0.015	n/a	9/26/2023	0.002ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Barium Total (mg/L)	MW-1A	0.2166	n/a	9/26/2023	0.115	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-3L	0.2166	n/a	9/26/2023	0.0679	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-4	0.2166	n/a	9/26/2023	0.00888	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-4L	0.2166	n/a	9/26/2023	0.0138	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-5	0.2166	n/a	9/26/2023	0.0338	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-11	0.2166	n/a	9/26/2023	0.1ND	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-12	0.2166	n/a	9/26/2023	0.0728	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-14	0.2166	n/a	9/26/2023	0.0375	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-16	0.2166	n/a	9/26/2023	0.0587	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-16L	0.2166	n/a	9/26/2023	0.0655	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-18	0.2166	n/a	9/26/2023	0.0107	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-19	0.2166	n/a	9/26/2023	0.116	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-20	0.2166	n/a	9/26/2023	0.0782	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Barium Total (mg/L)	MW-21	0.2166	n/a	9/26/2023	0.141	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-1A	484.8	-319.3	9/26/2023	402	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-3L	484.8	-319.3	9/26/2023	378	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-4	484.8	-319.3	9/26/2023	56.5	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-4L	484.8	-319.3	9/26/2023	124	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-5	484.8	-319.3	9/26/2023	374	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-11	484.8	-319.3	9/26/2023	53.1	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-12	484.8	-319.3	9/26/2023	357	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-14	484.8	-319.3	9/26/2023	279	No	15	0	x^3	0.000...	Param Inter 1 of 2

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Bicarbonate Alkalinity (mg/l)	MW-16	484.8	-319.3	9/26/2023	322	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-16L	484.8	-319.3	9/26/2023	312	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-18	484.8	-319.3	9/26/2023	85.7	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-19	484.8	-319.3	9/26/2023	396	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-20	484.8	-319.3	9/26/2023	360	No	15	0	x^3	0.000...	Param Inter 1 of 2
Bicarbonate Alkalinity (mg/l)	MW-21	484.8	-319.3	9/26/2023	380	No	15	0	x^3	0.000...	Param Inter 1 of 2
Boron Total (mg/L)	**MW-1A**	**1.04**	**n/a**	**9/26/2023**	**1.22**	**Yes**	**35**	**11.43**	**n/a**	**0.001437**	**NP Inter (normality) ...**
Boron Total (mg/L)	MW-3L	1.04	n/a	9/26/2023	0.256	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-4	1.04	n/a	9/26/2023	0.2ND	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-4L	1.04	n/a	9/26/2023	0.2ND	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-5	1.04	n/a	9/26/2023	0.2ND	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-11	1.04	n/a	9/26/2023	5ND	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-12	1.04	n/a	9/26/2023	0.861	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-14	1.04	n/a	9/26/2023	0.2ND	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-16	1.04	n/a	9/26/2023	0.456	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-16L	1.04	n/a	9/26/2023	0.26	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-18	1.04	n/a	9/26/2023	0.2ND	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-19	1.04	n/a	9/26/2023	0.266	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-20	1.04	n/a	9/26/2023	0.408	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Boron Total (mg/L)	MW-21	1.04	n/a	9/26/2023	0.239	No	35	11.43	n/a	0.001437	NP Inter (normality) ...
Bromate (ug/L)	**MW-1A**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-3L**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-4**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-4L**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-5**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-11**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-12**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-14**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-16**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-16L**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-18**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-19**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-20**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Bromate (ug/L)	**MW-21**	**337.1**	**n/a**	**9/26/2023**	**Tk*=1000**	**Yes**	**14**	**92.86**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Cadmium Total (mg/L)	MW-1A	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-3L	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-4	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-4L	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-5	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-11	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-12	0.005	n/a	9/26/2023	0.000217	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-14	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-16	0.005	n/a	9/26/2023	0.0008ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-16L	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-18	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-19	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-20	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Cadmium Total (mg/L)	MW-21	0.005	n/a	9/26/2023	0.0002ND	No	35	80	n/a	0.001437	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-1A	473	n/a	9/26/2023	67.5	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-3L	473	n/a	9/26/2023	104	No	35	0	n/a	0.001437	NP Inter (normality) ...

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	MW-4	473	n/a	9/26/2023	2.85	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-4L	473	n/a	9/26/2023	1ND	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-5	473	n/a	9/26/2023	392	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-11	473	n/a	9/26/2023	25ND	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-12	473	n/a	9/26/2023	111	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-14	473	n/a	9/26/2023	211	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-16	473	n/a	9/26/2023	161	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-16L	473	n/a	9/26/2023	75.4	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-18	473	n/a	9/26/2023	1ND	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-19	473	n/a	9/26/2023	91.2	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-20	473	n/a	9/26/2023	86.3	No	35	0	n/a	0.001437	NP Inter (normality) ...
Calcium (mg/L)	MW-21	473	n/a	9/26/2023	98.3	No	35	0	n/a	0.001437	NP Inter (normality) ...
Carbonate Alkalinity (mg/l)	MW-1A	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-3L	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	**MW-4**	**18.8**	**n/a**	**9/26/2023**	**Tk*=1410**	**Yes**	**15**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	**MW-4L**	**18.8**	**n/a**	**9/26/2023**	**Tk*=1390**	**Yes**	**15**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	MW-5	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	**MW-11**	**18.8**	**n/a**	**9/26/2023**	**Tk*=1400**	**Yes**	**15**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	MW-12	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-14	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-16	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-16L	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	**MW-18**	**18.8**	**n/a**	**9/26/2023**	**Tk*=1510**	**Yes**	**15**	**100**	**n/a**	**0.01**	**Poisson Inter (NDs)**
Carbonate Alkalinity (mg/l)	MW-19	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-20	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Carbonate Alkalinity (mg/l)	MW-21	18.8	n/a	9/26/2023	Tk*=5	No	15	100	n/a	0.01	Poisson Inter (NDs)
Chloride (mg/L)	MW-1A	1736	n/a	9/26/2023	2.21	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-3L	1736	n/a	9/26/2023	9.84	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-4	1736	n/a	9/26/2023	1120	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-4L	1736	n/a	9/26/2023	1590	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-5	1736	n/a	9/26/2023	444	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-11	1736	n/a	9/26/2023	1380	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-12	1736	n/a	9/26/2023	83.5	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-14	1736	n/a	9/26/2023	515	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-16	1736	n/a	9/26/2023	128	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-16L	1736	n/a	9/26/2023	1.04	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-18	1736	n/a	9/26/2023	1490	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-19	1736	n/a	9/26/2023	3.11	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-20	1736	n/a	9/26/2023	5.03	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-21	1736	n/a	9/26/2023	1.19	No	35	8.571	ln(x)	0.000...	Param Inter 1 of 2
Chromium Total (mg/L)	MW-1A	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-3L	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-4	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-4L	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-5	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-11	0.00578	n/a	9/26/2023	0.5ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-12	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-14	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-16	0.00578	n/a	9/26/2023	0.02ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-16L	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chromium Total (mg/L)	MW-18	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-19	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-20	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Chromium Total (mg/L)	MW-21	0.00578	n/a	9/26/2023	0.005ND	No	35	88.57	n/a	0.001437	NP Inter (NDs) 1 of 2
Cobalt Total (mg/L)	MW-1A	0.01361	n/a	9/26/2023	0.0005ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-3L	0.01361	n/a	9/26/2023	0.000616	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-4	0.01361	n/a	9/26/2023	0.002ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-4L	0.01361	n/a	9/26/2023	0.0005ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-5	0.01361	n/a	9/26/2023	0.000782	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-11	0.01361	n/a	9/26/2023	0.05ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-12	0.01361	n/a	9/26/2023	0.00357	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-14	0.01361	n/a	9/26/2023	0.00257	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-16	0.01361	n/a	9/26/2023	0.002ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-16L	0.01361	n/a	9/26/2023	0.0005ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-18	0.01361	n/a	9/26/2023	0.0005ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-19	0.01361	n/a	9/26/2023	0.00331	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-20	0.01361	n/a	9/26/2023	0.000526	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Cobalt Total (mg/L)	MW-21	0.01361	n/a	9/26/2023	0.0005ND	No	35	28.57	ln(x)	0.000...	Param Inter 1 of 2
Copper Total (mg/L)	MW-1A	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-3L	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-4	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-4L	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-5	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-11	0.0305	n/a	9/26/2023	0.5ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-12	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-14	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-16	0.0305	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-16L	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-18	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-19	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-20	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Copper Total (mg/L)	MW-21	0.0305	n/a	9/26/2023	0.005ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-1A	0.9102	n/a	9/26/2023	0.816	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-3L	0.9102	n/a	9/26/2023	0.271	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	**MW-4**	**0.9102**	**n/a**	**9/26/2023**	**5.14**	**Yes**	**35**	**25.71**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	**MW-4L**	**0.9102**	**n/a**	**9/26/2023**	**7.35**	**Yes**	**35**	**25.71**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	**MW-5**	**0.9102**	**n/a**	**9/26/2023**	**1.04**	**Yes**	**35**	**25.71**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	**MW-11**	**0.9102**	**n/a**	**9/26/2023**	**6.03**	**Yes**	**35**	**25.71**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-12	0.9102	n/a	9/26/2023	0.509	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-14	0.9102	n/a	9/26/2023	0.553	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-16	0.9102	n/a	9/26/2023	0.333	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-16L	0.9102	n/a	9/26/2023	0.252	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	**MW-18**	**0.9102**	**n/a**	**9/26/2023**	**7.28**	**Yes**	**35**	**25.71**	**No**	**0.000...**	**Param Inter 1 of 2**
Fluoride (mg/L)	MW-19	0.9102	n/a	9/26/2023	0.22	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-20	0.9102	n/a	9/26/2023	0.295	No	35	25.71	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-21	0.9102	n/a	9/26/2023	0.24	No	35	25.71	No	0.000...	Param Inter 1 of 2
Lead Total (mg/L)	MW-1A	0.0194	n/a	9/26/2023	0.000583	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-3L	0.0194	n/a	9/26/2023	0.0005ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-4	0.0194	n/a	9/26/2023	0.0005ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-4L	0.0194	n/a	9/26/2023	0.0005ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2

Prediction Limit

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Lead Total (mg/L)	MW-5	0.0194	n/a	9/26/2023	0.0005ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-11	0.0194	n/a	9/26/2023	0.05ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-12	0.0194	n/a	9/26/2023	0.000515	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-14	0.0194	n/a	9/26/2023	0.0005ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-16	0.0194	n/a	9/26/2023	0.002ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-16L	0.0194	n/a	9/26/2023	0.0005ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-18	0.0194	n/a	9/26/2023	0.0005ND	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-19	0.0194	n/a	9/26/2023	0.000611	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-20	0.0194	n/a	9/26/2023	0.0134	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lead Total (mg/L)	MW-21	0.0194	n/a	9/26/2023	0.00143	No	35	51.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Lithium Total (mg/L)	**MW-1A**	**0.084**	**n/a**	**9/26/2023**	**0.105**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-3L	0.084	n/a	9/26/2023	0.0346	No	35	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	**MW-4**	**0.084**	**n/a**	**9/26/2023**	**0.447**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	**MW-4L**	**0.084**	**n/a**	**9/26/2023**	**0.643**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	**MW-5**	**0.084**	**n/a**	**9/26/2023**	**0.103**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-11	0.084	n/a	9/26/2023	0.5ND	No	35	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	MW-12	0.084	n/a	9/26/2023	0.0165	No	35	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	MW-14	0.084	n/a	9/26/2023	0.14ND	No	35	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	**MW-16**	**0.084**	**n/a**	**9/26/2023**	**0.0882**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-16L	0.084	n/a	9/26/2023	0.0258	No	35	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	**MW-18**	**0.084**	**n/a**	**9/26/2023**	**0.803**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Lithium Total (mg/L)	MW-19	0.084	n/a	9/26/2023	0.0348	No	35	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	MW-20	0.084	n/a	9/26/2023	0.029	No	35	0	No	0.000...	Param Inter 1 of 2
Lithium Total (mg/L)	MW-21	0.084	n/a	9/26/2023	0.0312	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-1A	78.38	n/a	9/26/2023	38.7	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-3L	78.38	n/a	9/26/2023	47.6	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-4	78.38	n/a	9/26/2023	0.25ND	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-4L	78.38	n/a	9/26/2023	0.25ND	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	**MW-5**	**78.38**	**n/a**	**9/26/2023**	**130**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Magnesium (mg/L)	MW-11	78.38	n/a	9/26/2023	25ND	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-12	78.38	n/a	9/26/2023	59.8	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	**MW-14**	**78.38**	**n/a**	**9/26/2023**	**115**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Magnesium (mg/L)	**MW-16**	**78.38**	**n/a**	**9/26/2023**	**88.3**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Magnesium (mg/L)	MW-16L	78.38	n/a	9/26/2023	34.1	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-18	78.38	n/a	9/26/2023	0.25ND	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-19	78.38	n/a	9/26/2023	36.4	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-20	78.38	n/a	9/26/2023	39.3	No	35	0	No	0.000...	Param Inter 1 of 2
Magnesium (mg/L)	MW-21	78.38	n/a	9/26/2023	40.8	No	35	0	No	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-1A	2.864	n/a	9/26/2023	0.0559	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-3L	2.864	n/a	9/26/2023	0.167	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-4	2.864	n/a	9/26/2023	0.0684	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-4L	2.864	n/a	9/26/2023	0.005ND	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-5	2.864	n/a	9/26/2023	0.423	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-11	2.864	n/a	9/26/2023	0.5ND	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-12	2.864	n/a	9/26/2023	1.42	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-14	2.864	n/a	9/26/2023	0.282	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-16	2.864	n/a	9/26/2023	0.0577	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-16L	2.864	n/a	9/26/2023	0.0912	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-18	2.864	n/a	9/26/2023	0.005ND	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-19	2.864	n/a	9/26/2023	0.0417	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2

Prediction Limit

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Manganese Total (mg/L)	MW-20	2.864	n/a	9/26/2023	0.0609	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Manganese Total (mg/L)	MW-21	2.864	n/a	9/26/2023	0.112	No	35	2.857	ln(x)	0.000...	Param Inter 1 of 2
Molybdenum Total (mg/L)	MW-1A	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-3L	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	**MW-4**	**0.0228**	**n/a**	**9/26/2023**	**0.121**	**Yes**	**35**	**57.14**	**n/a**	**0.001437**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	**MW-4L**	**0.0228**	**n/a**	**9/26/2023**	**0.17**	**Yes**	**35**	**57.14**	**n/a**	**0.001437**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	MW-5	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-11	0.0228	n/a	9/26/2023	0.2ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-12	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	**MW-14**	**0.0228**	**n/a**	**9/26/2023**	**0.0895**	**Yes**	**35**	**57.14**	**n/a**	**0.001437**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	MW-16	0.0228	n/a	9/26/2023	0.008ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-16L	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	**MW-18**	**0.0228**	**n/a**	**9/26/2023**	**0.184**	**Yes**	**35**	**57.14**	**n/a**	**0.001437**	**NP Inter (NDs) 1 of 2**
Molybdenum Total (mg/L)	MW-19	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-20	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Molybdenum Total (mg/L)	MW-21	0.0228	n/a	9/26/2023	0.002ND	No	35	57.14	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-1A	0.864	n/a	9/26/2023	0.005ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-3L	0.864	n/a	9/26/2023	0.005ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-4	0.864	n/a	9/26/2023	0.0114	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-4L	0.864	n/a	9/26/2023	0.00826	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-5	0.864	n/a	9/26/2023	0.00612	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-11	0.864	n/a	9/26/2023	0.5ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-12	0.864	n/a	9/26/2023	0.00836	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-14	0.864	n/a	9/26/2023	0.00569	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-16	0.864	n/a	9/26/2023	0.02ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-16L	0.864	n/a	9/26/2023	0.005ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-18	0.864	n/a	9/26/2023	0.00828	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-19	0.864	n/a	9/26/2023	0.005ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-20	0.864	n/a	9/26/2023	0.005ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nickel Total (mg/L)	MW-21	0.864	n/a	9/26/2023	0.005ND	No	35	65.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Nitrate (mg/L)	MW-1A	5.62	n/a	9/26/2023	0.602	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-3L	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-4	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-4L	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-5	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-11	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-12	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-14	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-16	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-16L	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-18	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-19	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-20	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrate (mg/L)	MW-21	5.62	n/a	9/26/2023	0.2ND	No	35	42.86	n/a	0.001437	NP Inter (normality) ...
Nitrite (mg/L)	MW-1A	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-3L	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-4	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-4L	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-5	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-11	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)

Prediction Limit

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Nitrite (mg/L)	MW-12	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-14	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-16	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-16L	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-18	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-19	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-20	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
Nitrite (mg/L)	MW-21	1.078	n/a	9/26/2023	Tk*=0.2...	No	23	100	n/a	0.01	Poisson Inter (NDs)
pH (n/a)	MW-1A	10.34	6.9	9/26/2023	6.96	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	MW-3L	10.34	6.9	9/26/2023	7.02	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	**MW-4**	**10.34**	**6.9**	**9/26/2023**	**10.46**	**Yes**	**35**	**0**	**n/a**	**0.002874**	**NP Inter (normality) ...**
pH (n/a)	MW-4L	10.34	6.9	9/26/2023	10.22	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	**MW-5**	**10.34**	**6.9**	**9/26/2023**	**6.38**	**Yes**	**35**	**0**	**n/a**	**0.002874**	**NP Inter (normality) ...**
pH (n/a)	**MW-11**	**10.34**	**6.9**	**9/26/2023**	**10.75**	**Yes**	**35**	**0**	**n/a**	**0.002874**	**NP Inter (normality) ...**
pH (n/a)	MW-12	10.34	6.9	9/26/2023	7.15	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	MW-14	10.34	6.9	9/26/2023	7.42	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	MW-16	10.34	6.9	9/26/2023	6.93	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	MW-16L	10.34	6.9	9/26/2023	7.3	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	**MW-18**	**10.34**	**6.9**	**9/26/2023**	**10.9**	**Yes**	**35**	**0**	**n/a**	**0.002874**	**NP Inter (normality) ...**
pH (n/a)	**MW-19**	**10.34**	**6.9**	**9/26/2023**	**6.82**	**Yes**	**35**	**0**	**n/a**	**0.002874**	**NP Inter (normality) ...**
pH (n/a)	MW-20	10.34	6.9	9/26/2023	7.08	No	35	0	n/a	0.002874	NP Inter (normality) ...
pH (n/a)	MW-21	10.34	6.9	9/26/2023	6.92	No	35	0	n/a	0.002874	NP Inter (normality) ...
Phosphorus (mg/L)	MW-1A	2.56	n/a	9/26/2023	0.1ND	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-3L	2.56	n/a	9/26/2023	0.1ND	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-4	2.56	n/a	9/26/2023	0.215	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-4L	2.56	n/a	9/26/2023	0.167	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-5	2.56	n/a	9/26/2023	0.1ND	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-11	2.56	n/a	9/26/2023	0.197	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-12	2.56	n/a	9/26/2023	0.1ND	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-14	2.56	n/a	9/26/2023	0.1ND	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-16	2.56	n/a	9/26/2023	0.1ND	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-16L	2.56	n/a	9/26/2023	0.1ND	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-18	2.56	n/a	9/26/2023	0.162	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-19	2.56	n/a	9/26/2023	0.222	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-20	2.56	n/a	9/26/2023	0.131	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Phosphorus (mg/L)	MW-21	2.56	n/a	9/26/2023	0.231	No	35	71.43	n/a	0.001437	NP Inter (NDs) 1 of 2
Potassium (mg/L)	MW-1A	16.43	n/a	9/26/2023	11.5	No	35	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	MW-3L	16.43	n/a	9/26/2023	4.75	No	35	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	**MW-4**	**16.43**	**n/a**	**9/26/2023**	**3150**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-4L**	**16.43**	**n/a**	**9/26/2023**	**4660**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-5**	**16.43**	**n/a**	**9/26/2023**	**252**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-11**	**16.43**	**n/a**	**9/26/2023**	**5470**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	MW-12	16.43	n/a	9/26/2023	9.4	No	35	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	**MW-14**	**16.43**	**n/a**	**9/26/2023**	**1670**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	**MW-16**	**16.43**	**n/a**	**9/26/2023**	**178**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	MW-16L	16.43	n/a	9/26/2023	3.89	No	35	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	**MW-18**	**16.43**	**n/a**	**9/26/2023**	**5020**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Potassium (mg/L)	MW-19	16.43	n/a	9/26/2023	4.61	No	35	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	MW-20	16.43	n/a	9/26/2023	7.32	No	35	0	No	0.000...	Param Inter 1 of 2
Potassium (mg/L)	MW-21	16.43	n/a	9/26/2023	3.55	No	35	0	No	0.000...	Param Inter 1 of 2

Prediction Limit

Continental Cement Data: Import 1 Printed 11/22/2023, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sodium (mg/L)	MW-1A	584	n/a	9/26/2023	36.4	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-3L	584	n/a	9/26/2023	23.4	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-4	584	n/a	9/26/2023	264	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-4L	584	n/a	9/26/2023	424	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-5	584	n/a	9/26/2023	48.5	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-11	584	n/a	9/26/2023	447	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-12	584	n/a	9/26/2023	53.7	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-14	584	n/a	9/26/2023	378	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-16	584	n/a	9/26/2023	81.5	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-16L	584	n/a	9/26/2023	12.6	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-18	584	n/a	9/26/2023	434	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-19	584	n/a	9/26/2023	18.1	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-20	584	n/a	9/26/2023	19.7	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sodium (mg/L)	MW-21	584	n/a	9/26/2023	20.1	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-1A	2550	n/a	9/26/2023	768	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-3L	2550	n/a	9/26/2023	787	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	**MW-4**	**2550**	**n/a**	**9/26/2023**	**11450**	**Yes**	**35**	**0**	**n/a**	**0.001437**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	**MW-4L**	**2550**	**n/a**	**9/26/2023**	**15240**	**Yes**	**35**	**0**	**n/a**	**0.001437**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	**MW-5**	**2550**	**n/a**	**9/26/2023**	**3282**	**Yes**	**35**	**0**	**n/a**	**0.001437**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	**MW-11**	**2550**	**n/a**	**9/26/2023**	**12610**	**Yes**	**35**	**0**	**n/a**	**0.001437**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	MW-12	2550	n/a	9/26/2023	1287	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	**MW-14**	**2550**	**n/a**	**9/26/2023**	**7641**	**Yes**	**35**	**0**	**n/a**	**0.001437**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	MW-16	2550	n/a	9/26/2023	2068	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-16L	2550	n/a	9/26/2023	671	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	**MW-18**	**2550**	**n/a**	**9/26/2023**	**15380**	**Yes**	**35**	**0**	**n/a**	**0.001437**	**NP Inter (normality) ...**
Specific conductivity (umhos/cm)	MW-19	2550	n/a	9/26/2023	753	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-20	2550	n/a	9/26/2023	695	No	35	0	n/a	0.001437	NP Inter (normality) ...
Specific conductivity (umhos/cm)	MW-21	2550	n/a	9/26/2023	714	No	35	0	n/a	0.001437	NP Inter (normality) ...
Sulfate (mg/L)	MW-1A	187.6	n/a	9/26/2023	19.9	No	35	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-3L	187.6	n/a	9/26/2023	47.6	No	35	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	**MW-4**	**187.6**	**n/a**	**9/26/2023**	**1930**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-4L**	**187.6**	**n/a**	**9/26/2023**	**3280**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-5**	**187.6**	**n/a**	**9/26/2023**	**805**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-11**	**187.6**	**n/a**	**9/26/2023**	**2600**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-12**	**187.6**	**n/a**	**9/26/2023**	**192**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-14**	**187.6**	**n/a**	**9/26/2023**	**2590**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	**MW-16**	**187.6**	**n/a**	**9/26/2023**	**630**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	MW-16L	187.6	n/a	9/26/2023	30.8	No	35	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	**MW-18**	**187.6**	**n/a**	**9/26/2023**	**3080**	**Yes**	**35**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Sulfate (mg/L)	MW-19	187.6	n/a	9/26/2023	31.8	No	35	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-20	187.6	n/a	9/26/2023	33.5	No	35	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-21	187.6	n/a	9/26/2023	25.6	No	35	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-1A	1237	n/a	9/26/2023	422	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-3L	1237	n/a	9/26/2023	440	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**MW-4**	**1237**	**n/a**	**9/26/2023**	**7780**	**Yes**	**35**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**MW-4L**	**1237**	**n/a**	**9/26/2023**	**12400**	**Yes**	**35**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**MW-5**	**1237**	**n/a**	**9/26/2023**	**2510**	**Yes**	**35**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**MW-11**	**1237**	**n/a**	**9/26/2023**	**8980**	**Yes**	**35**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-12	1237	n/a	9/26/2023	762	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**MW-14**	**1237**	**n/a**	**9/26/2023**	**5980**	**Yes**	**35**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**

Prediction Limit

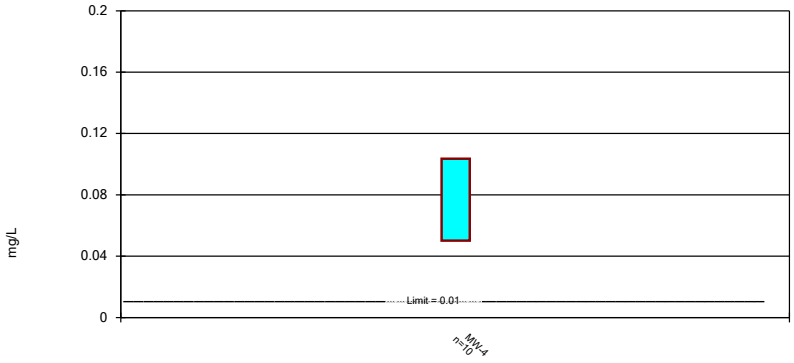
Continental Cement Data: Import 1 Printed 11/22/2023, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	**MW-16**	**1237**	**n/a**	**9/26/2023**	**1420**	**Yes**	**35**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-16L	1237	n/a	9/26/2023	300	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**MW-18**	**1237**	**n/a**	**9/26/2023**	**11000**	**Yes**	**35**	**0**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	MW-19	1237	n/a	9/26/2023	394	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-20	1237	n/a	9/26/2023	318	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-21	1237	n/a	9/26/2023	398	No	35	0	ln(x)	0.000...	Param Inter 1 of 2
Vanadium Total (mg/L)	MW-1A	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-3L	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-4	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-4L	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-5	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-11	0.0304	n/a	9/26/2023	0.5ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-12	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-14	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-16	0.0304	n/a	9/26/2023	0.02ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-16L	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-18	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-19	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-20	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Vanadium Total (mg/L)	MW-21	0.0304	n/a	9/26/2023	0.005ND	No	35	85.71	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-1A	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-3L	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-4	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-4L	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-5	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-11	0.307	n/a	9/26/2023	2ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-12	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-14	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-16	0.307	n/a	9/26/2023	0.08ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-16L	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-18	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-19	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-20	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2
Zinc Total (mg/L)	MW-21	0.307	n/a	9/26/2023	0.02ND	No	35	82.86	n/a	0.001437	NP Inter (NDs) 1 of 2

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Parametric Confidence Interval

Compliance limit is exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

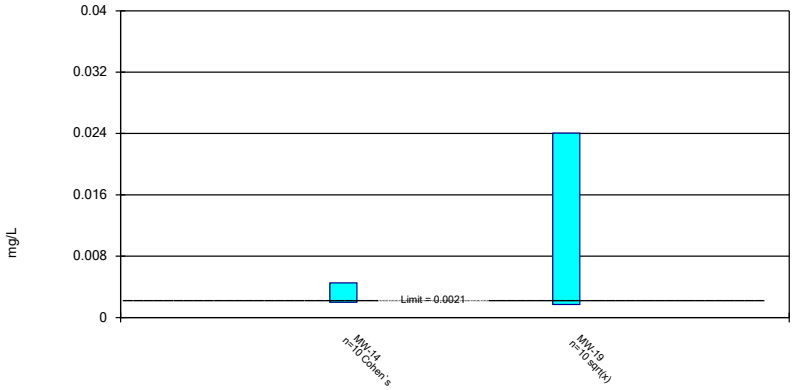


Constituent: Arsenic Total Analysis Run 11/27/2023 11:08 AM View: Confidence Limit Analysis - SSLs
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

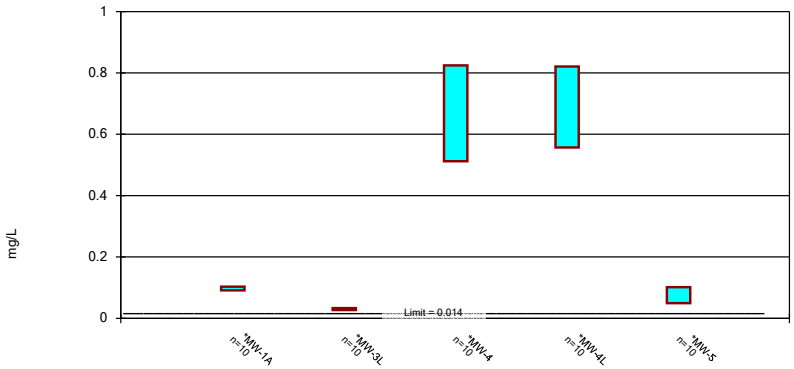


Constituent: Cobalt Total Analysis Run 11/27/2023 11:08 AM View: Confidence Limit Analysis - SSLs
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Parametric Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

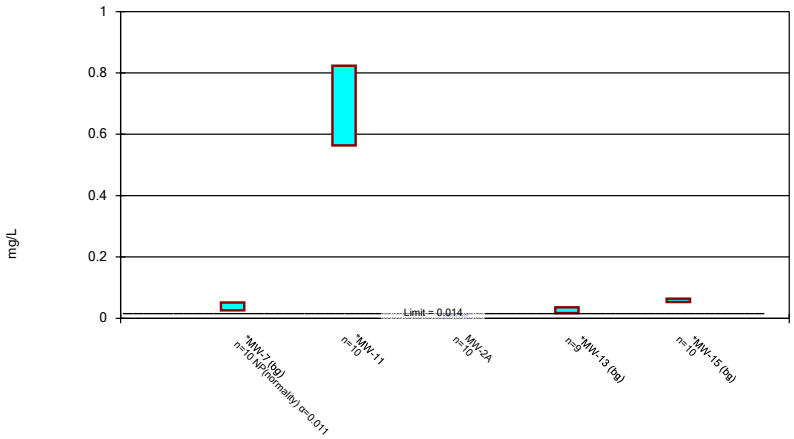


Constituent: Lithium Total Analysis Run 11/27/2023 11:08 AM View: Confidence Limit Analysis - SSLs
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

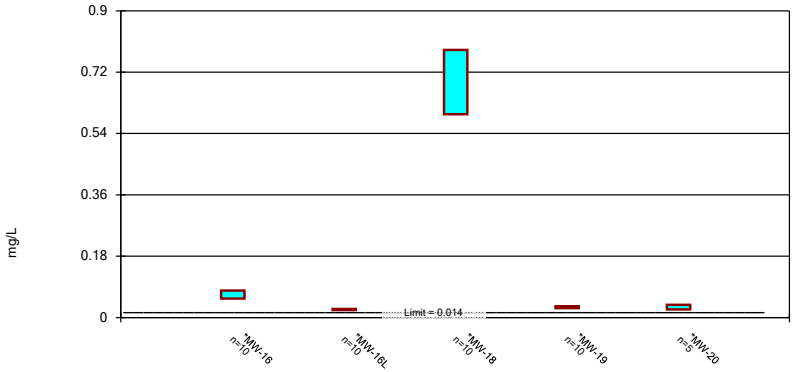


Constituent: Lithium Total Analysis Run 11/27/2023 11:08 AM View: Confidence Limit Analysis - SSLs
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Parametric Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

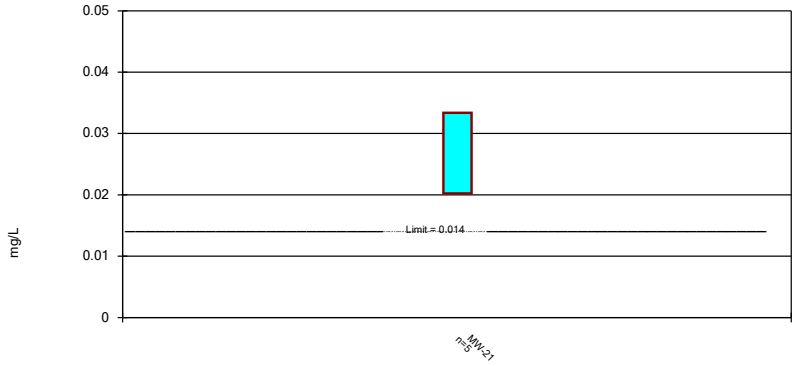


Constituent: Lithium Total Analysis Run 11/27/2023 11:08 AM View: Confidence Limit Analysis - SSLs
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Parametric Confidence Interval

Compliance limit is exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

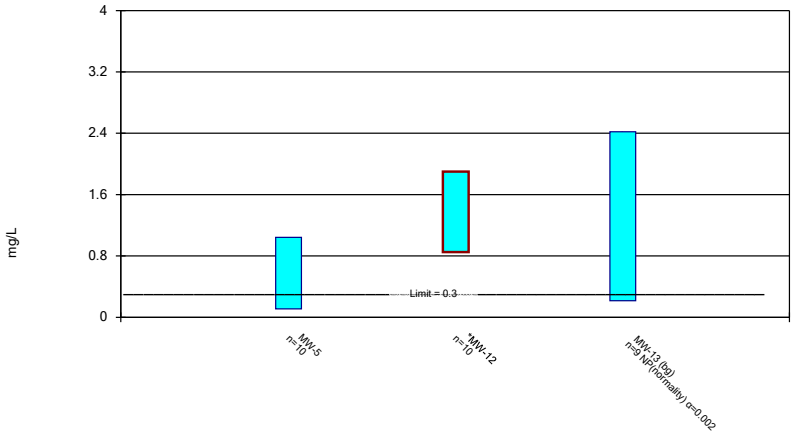


Constituent: Lithium Total Analysis Run 11/27/2023 11:09 AM View: Confidence Limit Analysis - SSLs
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

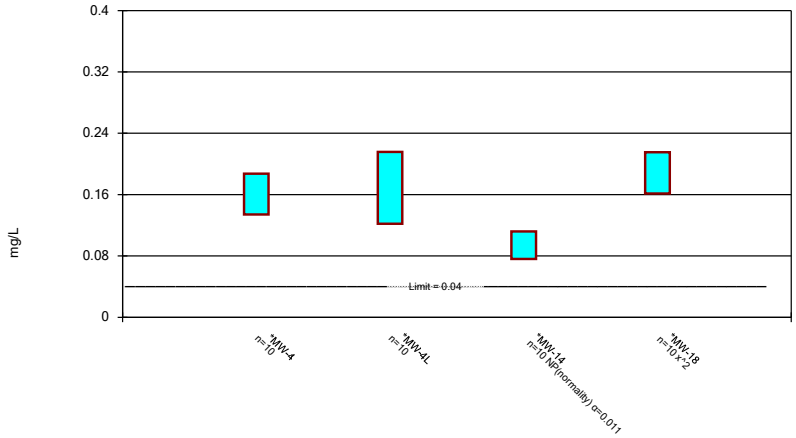


Constituent: Manganese Total Analysis Run 11/27/2023 11:09 AM View: Confidence Limit Analysis - SSLs
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Total Analysis Run 11/27/2023 11:09 AM View: Confidence Limit Analysis - SSL
Continental Cement Data: Import 1

Confidence Interval

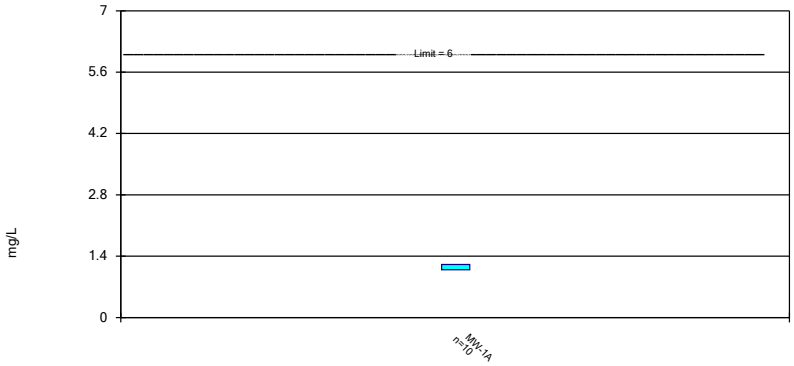
Continental Cement Data: Import 1 Printed 11/27/2023, 11:09 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic Total (mg/L)	**MW-4**	**0.1035**	**0.05012**	**0.01**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Cobalt Total (mg/L)	MW-14	0.004522	0.00199	0.0021	No	10	20	No	0.01	Param.
Cobalt Total (mg/L)	MW-19	0.02405	0.001702	0.0021	No	10	0	sqrt(x)	0.01	Param.
Lithium Total (mg/L)	**MW-1A**	**0.1031**	**0.0912**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-3L**	**0.03339**	**0.02689**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-4**	**0.8244**	**0.5122**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-4L**	**0.8209**	**0.5571**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-5**	**0.1016**	**0.04924**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-7 (bg)**	**0.0512**	**0.0258**	**0.014**	**Yes**	**10**	**0**	**No**	**0.011**	**NP (normality)**
Lithium Total (mg/L)	**MW-11**	**0.8232**	**0.5636**	**0.014**	**Yes**	**10**	**10**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	MW-2A	0.01376	0.008904	0.014	No	10	10	No	0.01	Param.
Lithium Total (mg/L)	**MW-13 (bg)**	**0.03597**	**0.01674**	**0.014**	**Yes**	**9**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-15 (bg)**	**0.06393**	**0.05325**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-16**	**0.07892**	**0.05552**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-16L**	**0.02538**	**0.0221**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-18**	**0.7853**	**0.5965**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-19**	**0.03328**	**0.0274**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-20**	**0.0373**	**0.02382**	**0.014**	**Yes**	**5**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-21**	**0.03338**	**0.02022**	**0.014**	**Yes**	**5**	**0**	**No**	**0.01**	**Param.**
Manganese Total (mg/L)	MW-5	1.042	0.1099	0.3	No	10	0	No	0.01	Param.
Manganese Total (mg/L)	**MW-12**	**1.9**	**0.85**	**0.3**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Manganese Total (mg/L)	MW-13 (bg)	2.42	0.216	0.3	No	9	0	No	0.002	NP (normality)
Molybdenum Total (mg/L)	**MW-4**	**0.1873**	**0.1341**	**0.04**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Molybdenum Total (mg/L)	**MW-4L**	**0.2157**	**0.122**	**0.04**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Molybdenum Total (mg/L)	**MW-14**	**0.112**	**0.0761**	**0.04**	**Yes**	**10**	**0**	**No**	**0.011**	**NP (normality)**
Molybdenum Total (mg/L)	**MW-18**	**0.2152**	**0.1615**	**0.04**	**Yes**	**10**	**0**	**x^2**	**0.01**	**Param.**

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Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

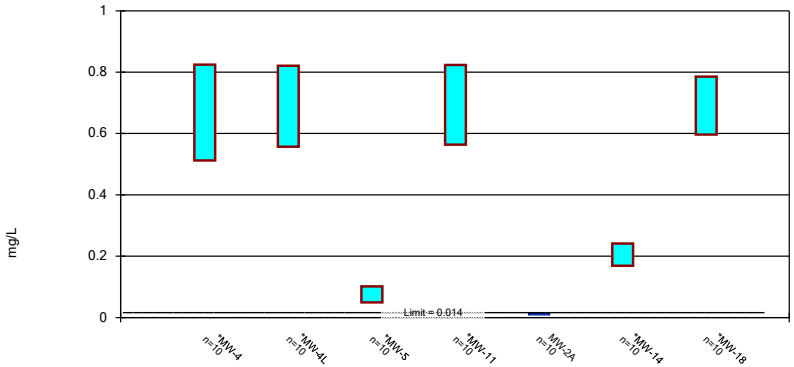


Constituent: Boron Total Analysis Run 11/27/2023 10:42 AM View: Confidence Limit Analysis - SSIs
Continental Cement Data: Import 1

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Parametric Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

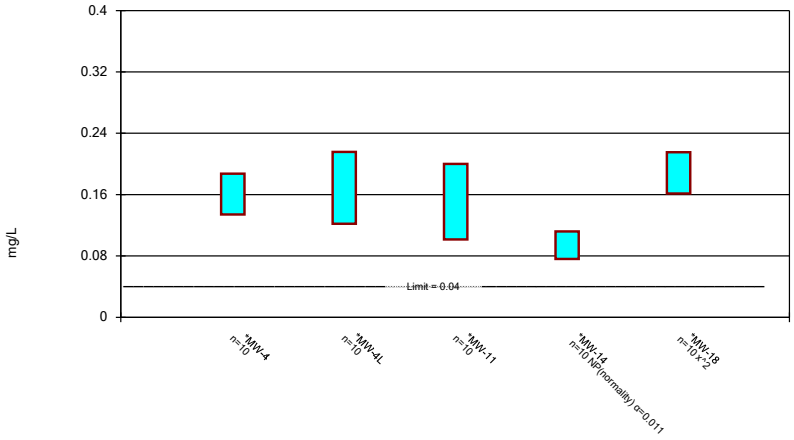


Constituent: Lithium Total Analysis Run 11/27/2023 10:42 AM View: Confidence Limit Analysis - SSIs
Continental Cement Data: Import 1

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Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Total Analysis Run 11/27/2023 10:42 AM View: Confidence Limit Analysis - SSI
Continental Cement Data: Import 1

Confidence Interval

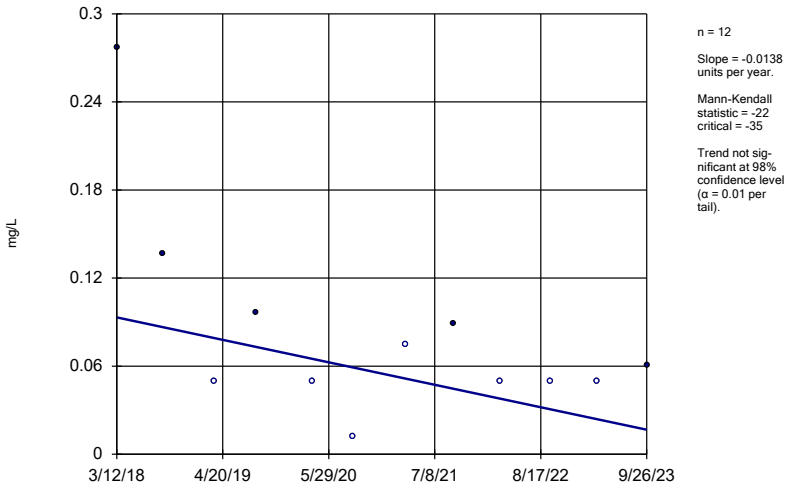
Continental Cement Data: Import 1 Printed 11/27/2023, 10:44 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Boron Total (mg/L)	MW-1A	1.21	1.092	6	No	10	0	No	0.01	Param.
Lithium Total (mg/L)	**MW-4**	**0.8244**	**0.5122**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-4L**	**0.8209**	**0.5571**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-5**	**0.1016**	**0.04924**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-11**	**0.8232**	**0.5636**	**0.014**	**Yes**	**10**	**10**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	MW-2A	0.01376	0.008904	0.014	No	10	10	No	0.01	Param.
Lithium Total (mg/L)	**MW-14**	**0.2413**	**0.1689**	**0.014**	**Yes**	**10**	**10**	**No**	**0.01**	**Param.**
Lithium Total (mg/L)	**MW-18**	**0.7853**	**0.5965**	**0.014**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Molybdenum Total (mg/L)	**MW-4**	**0.1873**	**0.1341**	**0.04**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Molybdenum Total (mg/L)	**MW-4L**	**0.2157**	**0.122**	**0.04**	**Yes**	**10**	**0**	**No**	**0.01**	**Param.**
Molybdenum Total (mg/L)	**MW-11**	**0.2001**	**0.1015**	**0.04**	**Yes**	**10**	**10**	**No**	**0.01**	**Param.**
Molybdenum Total (mg/L)	**MW-14**	**0.112**	**0.0761**	**0.04**	**Yes**	**10**	**0**	**No**	**0.011**	**NP (normality)**
Molybdenum Total (mg/L)	**MW-18**	**0.2152**	**0.1615**	**0.04**	**Yes**	**10**	**0**	**x^2**	**0.01**	**Param.**

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.0138 units per year.

Mann-Kendall statistic = -22
critical = -35

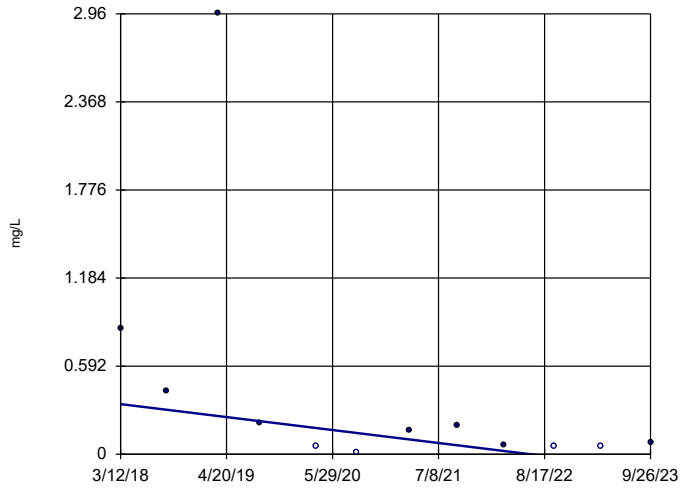
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -0.07861 units per year.

Mann-Kendall statistic = -31
critical = -35

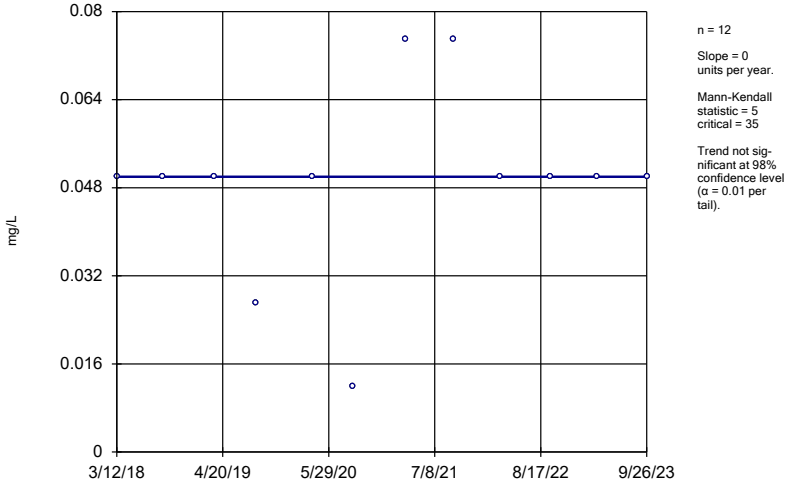
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

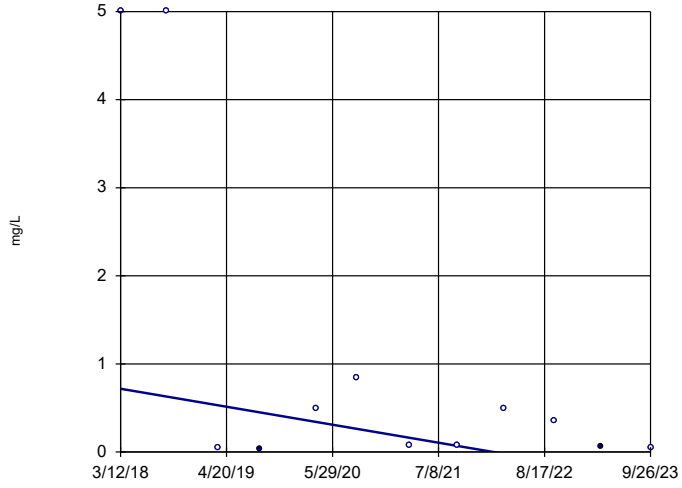
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.184 units per year.

Mann-Kendall statistic = -22
critical = -35

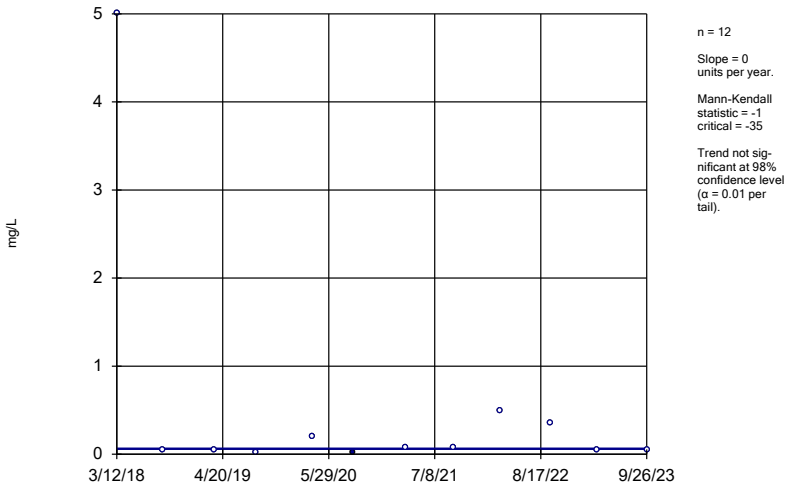
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L

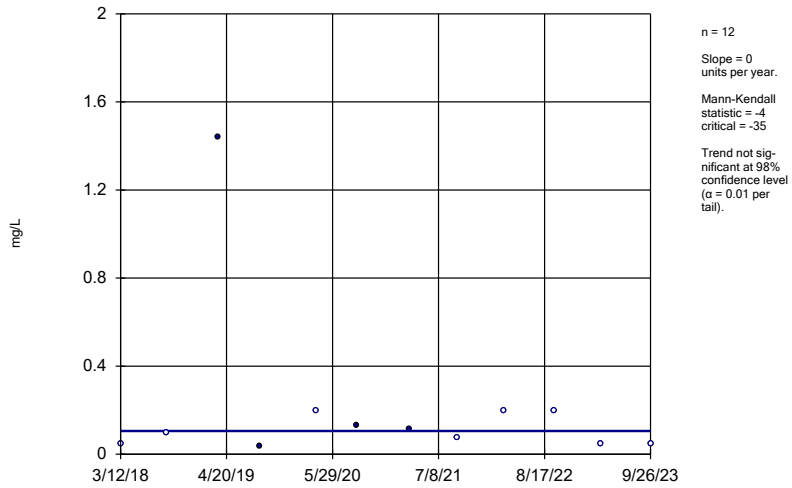


Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

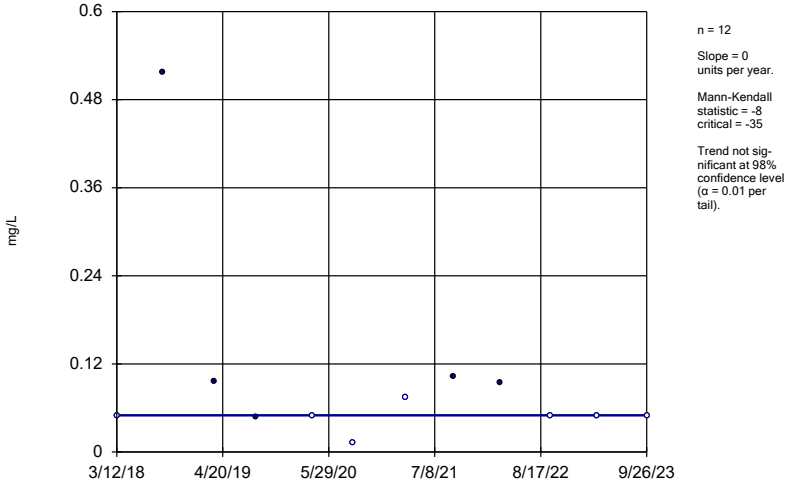


Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)

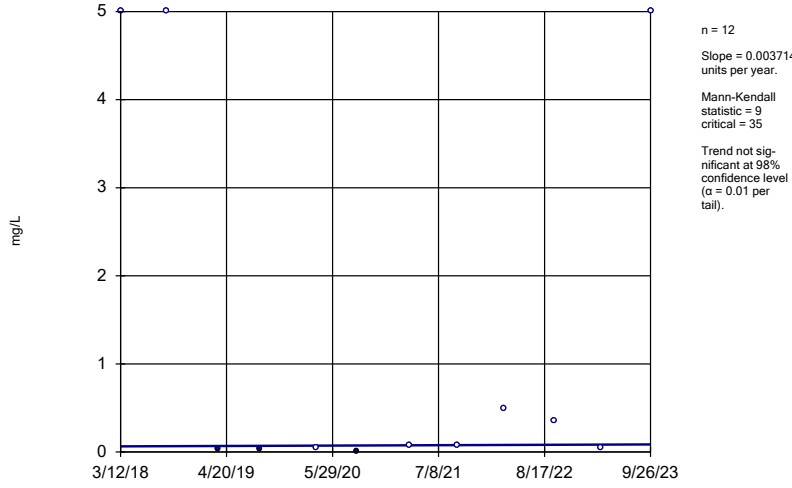


Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11

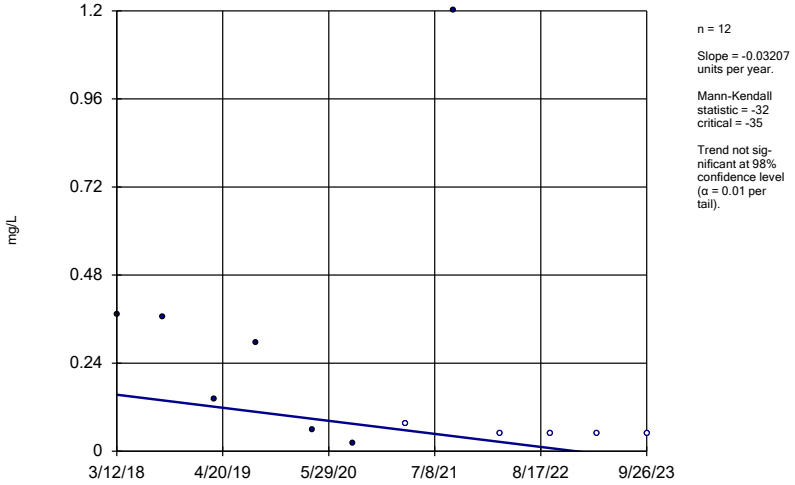


Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.03207 units per year.

Mann-Kendall statistic = -32
critical = -35

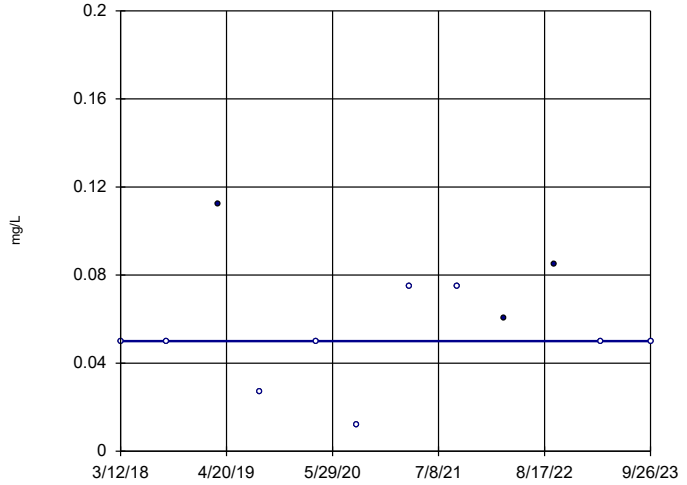
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

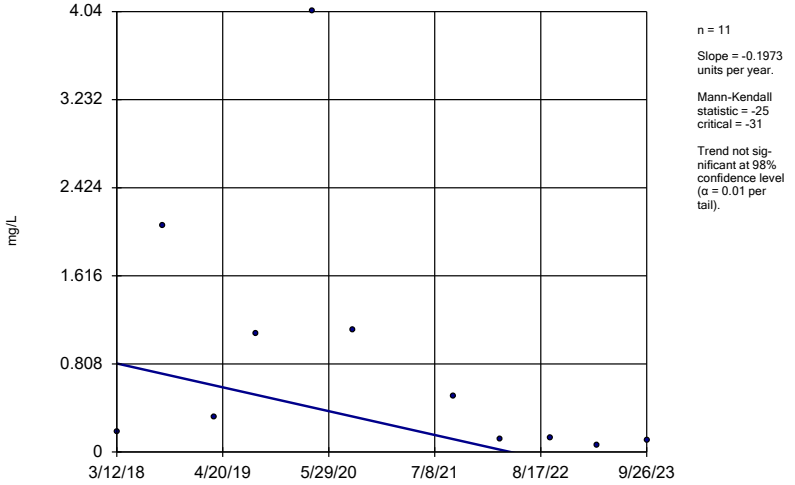
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.1973 units per year.

Mann-Kendall statistic = -25
critical = -31

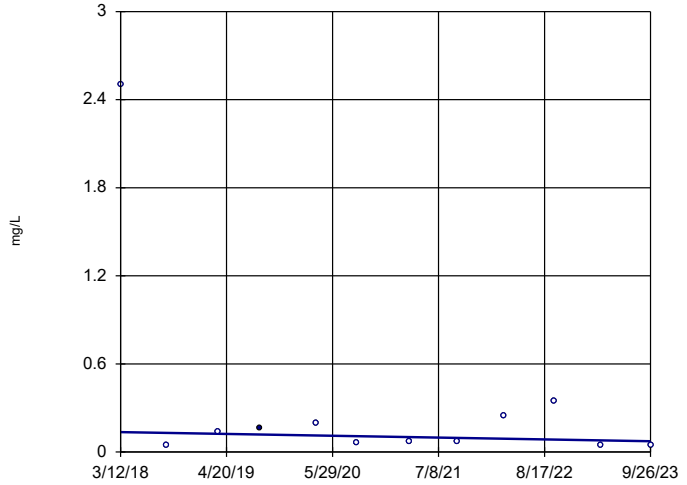
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.01112 units per year.

Mann-Kendall statistic = -10
critical = -35

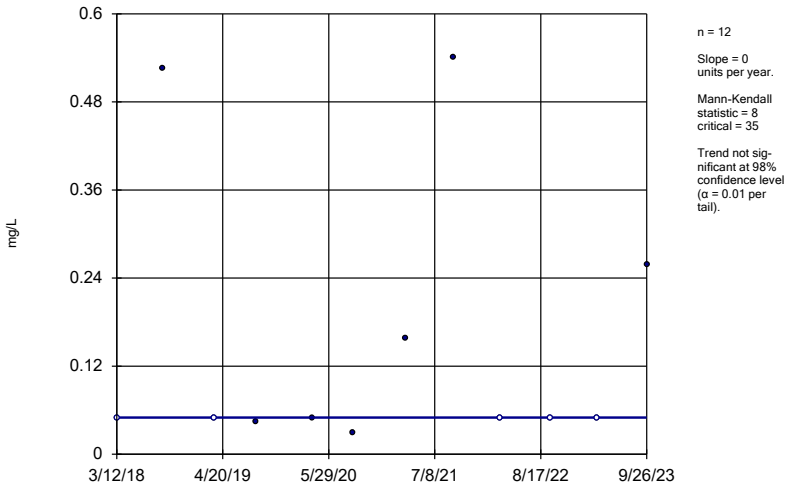
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 8
critical = 35

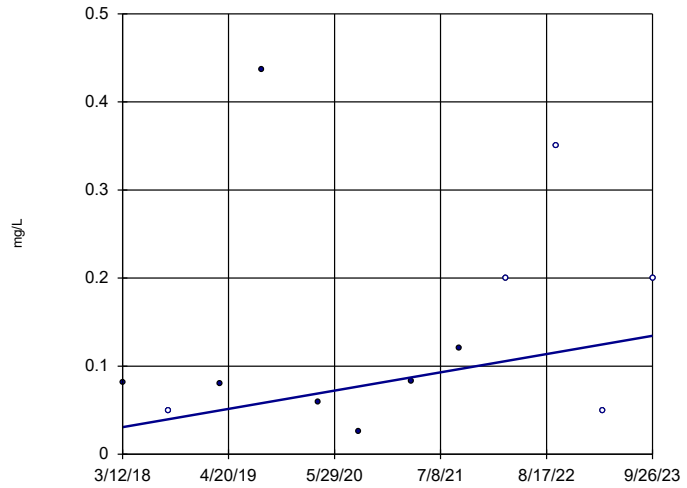
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.01871 units per year.

Mann-Kendall statistic = 16
critical = 35

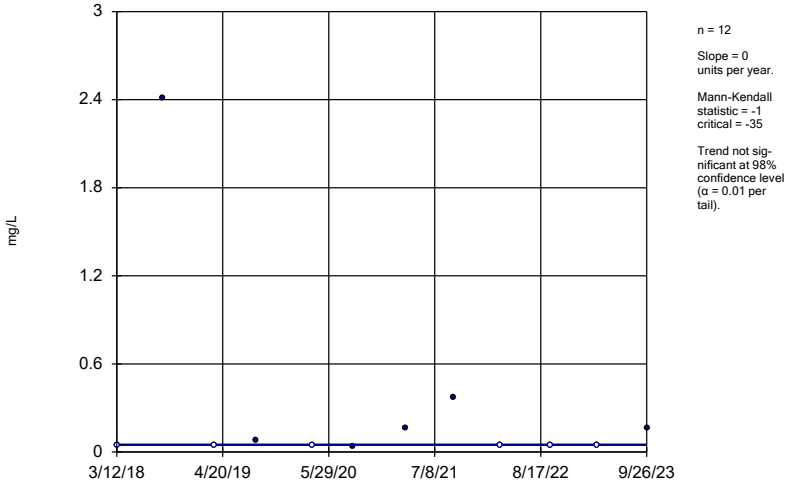
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

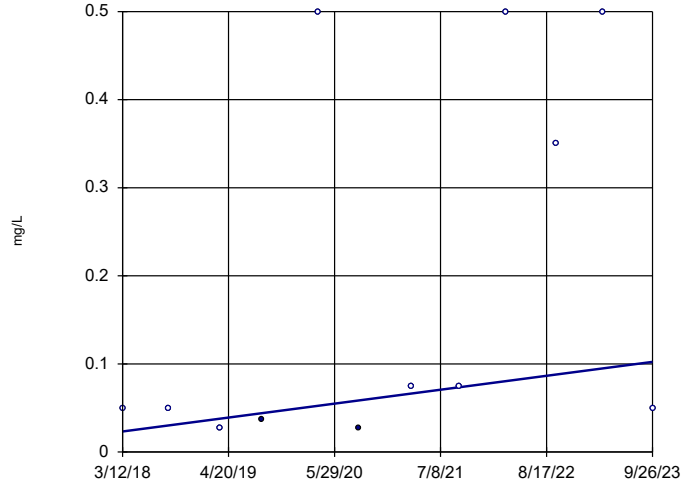
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.01423 units per year.

Mann-Kendall statistic = 23
critical = 35

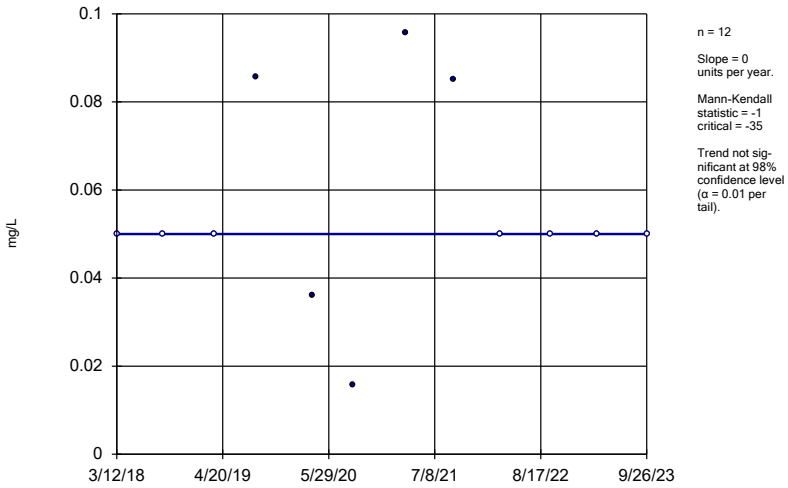
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

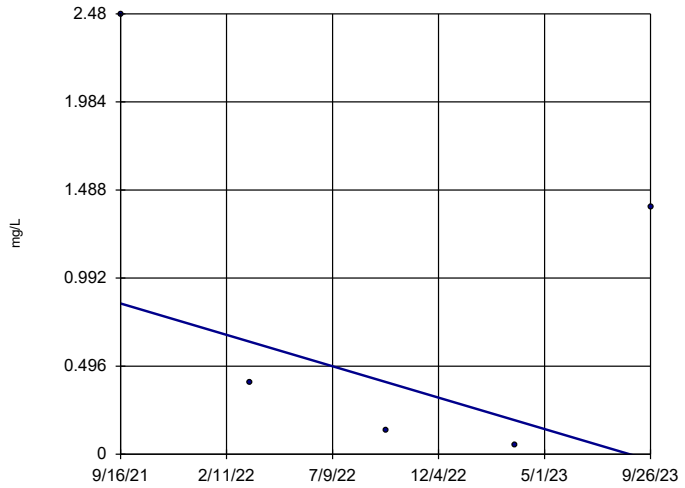
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20



n = 5

Slope = -0.4356 units per year.

Mann-Kendall statistic = -4
critical = -10

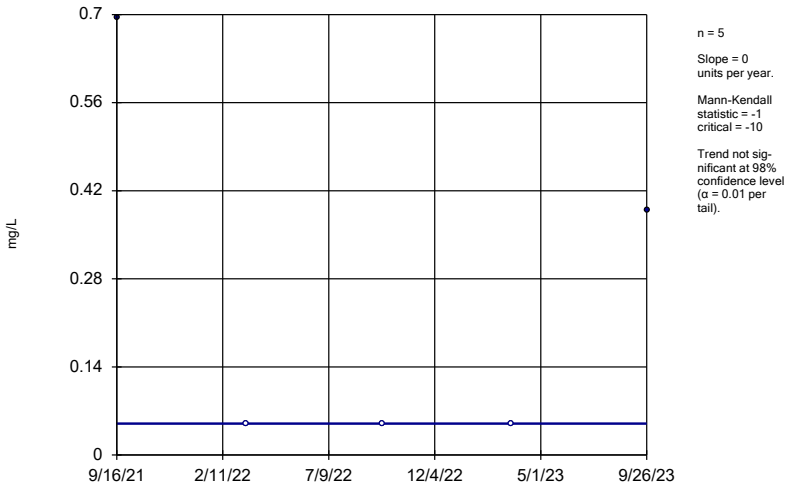
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -10

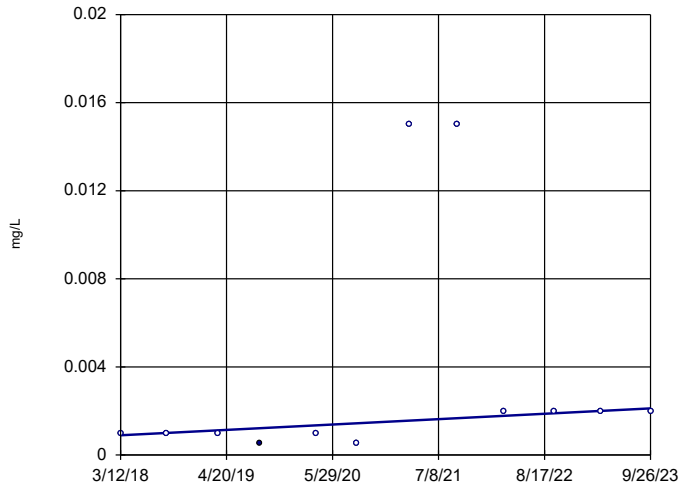
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Aluminum Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = 0.0002203 units per year.

Mann-Kendall statistic = 21
critical = 35

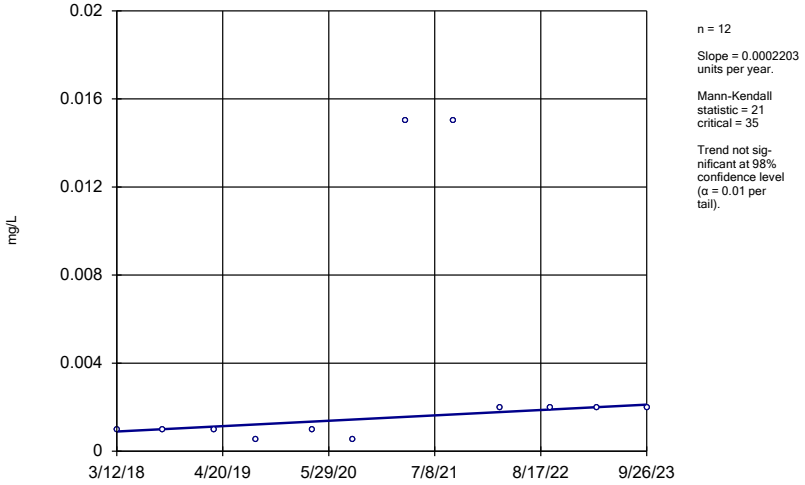
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = 0.0002203 units per year.

Mann-Kendall statistic = 21
critical = 35

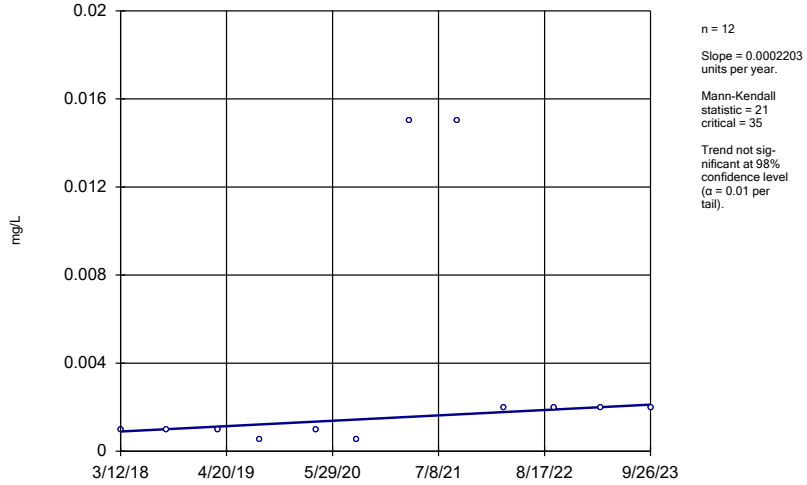
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0.0002203 units per year.

Mann-Kendall statistic = 21
critical = 35

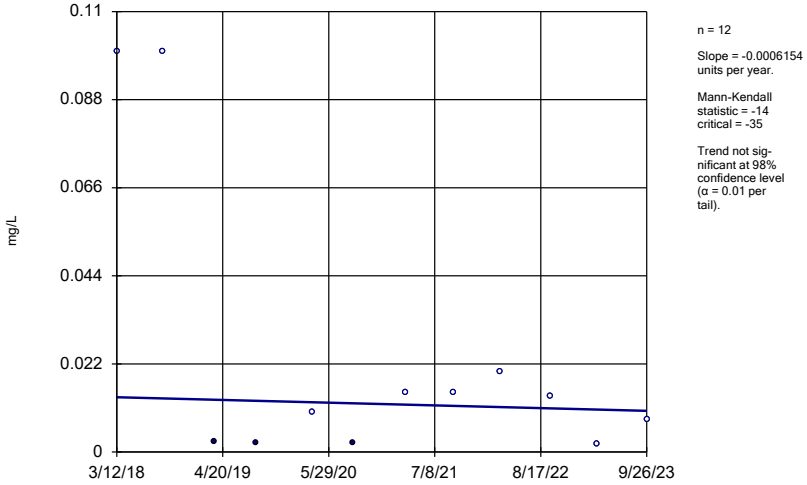
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.0006154 units per year.

Mann-Kendall statistic = -14
critical = -35

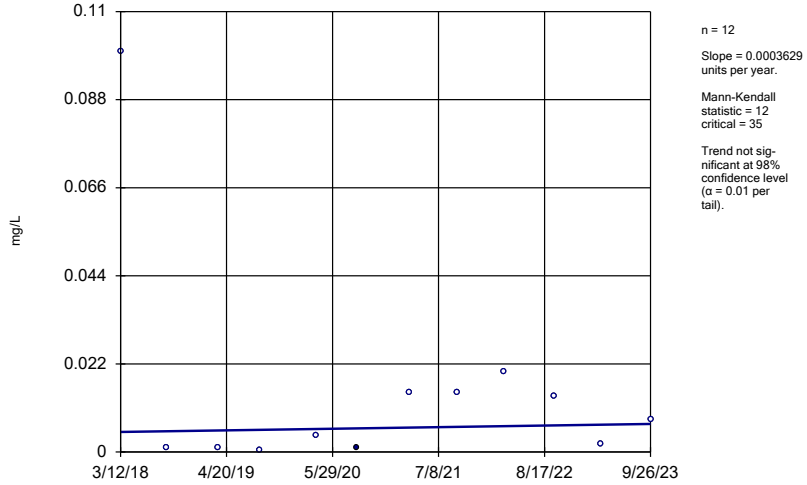
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0.0003629 units per year.

Mann-Kendall statistic = 12
critical = 35

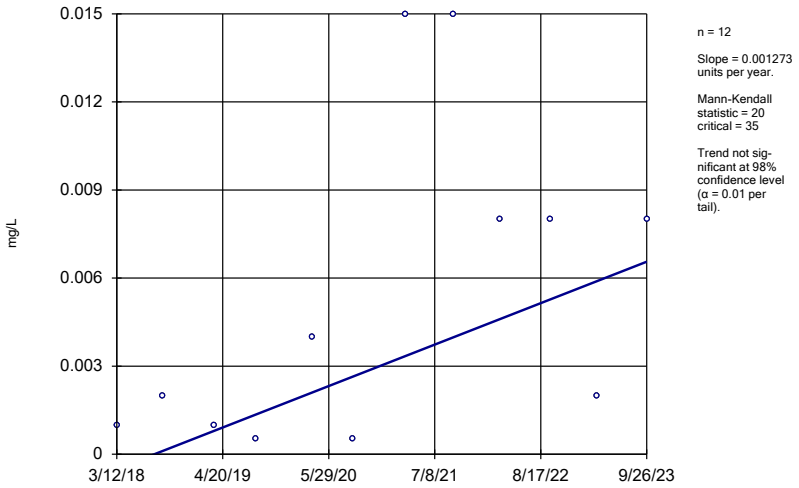
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.001273 units per year.

Mann-Kendall statistic = 20
critical = 35

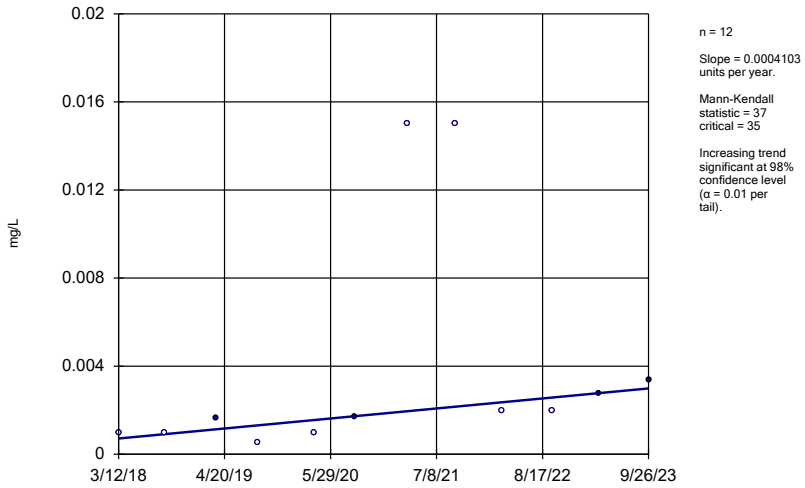
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.0004103 units per year.

Mann-Kendall statistic = 37
critical = 35

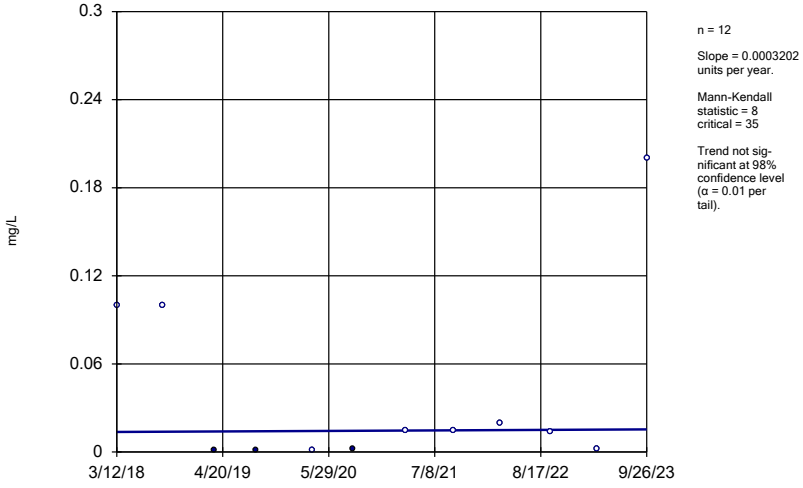
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:48 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.0003202 units per year.

Mann-Kendall statistic = 8
critical = 35

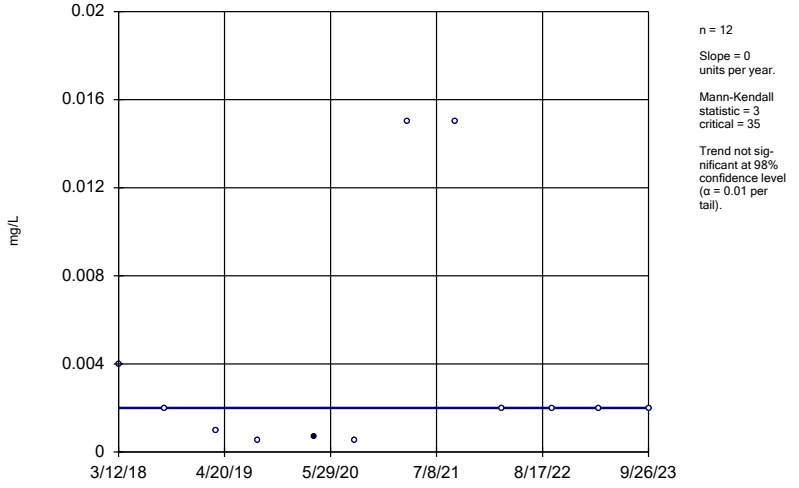
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 35

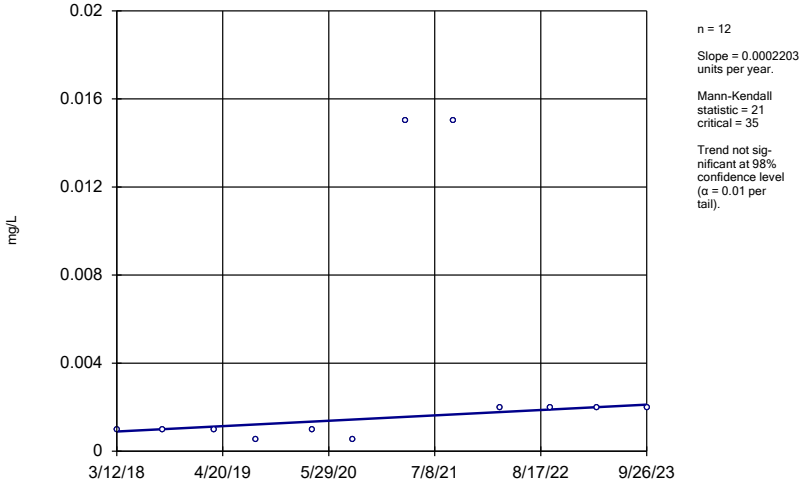
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0.0002203 units per year.

Mann-Kendall statistic = 21
critical = 35

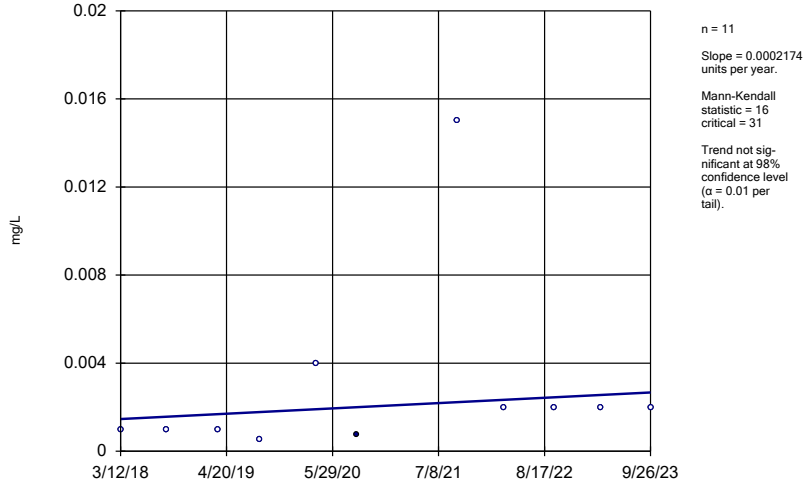
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0.0002174 units per year.

Mann-Kendall statistic = 16
critical = 31

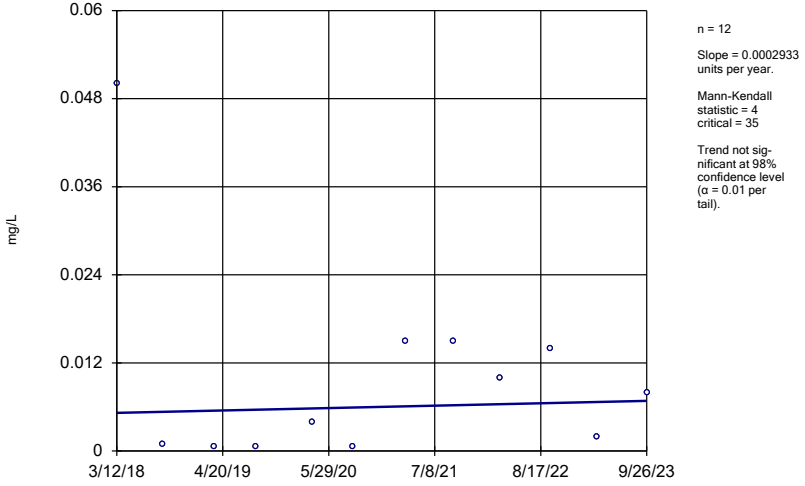
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0.0002933 units per year.

Mann-Kendall statistic = 4
critical = 35

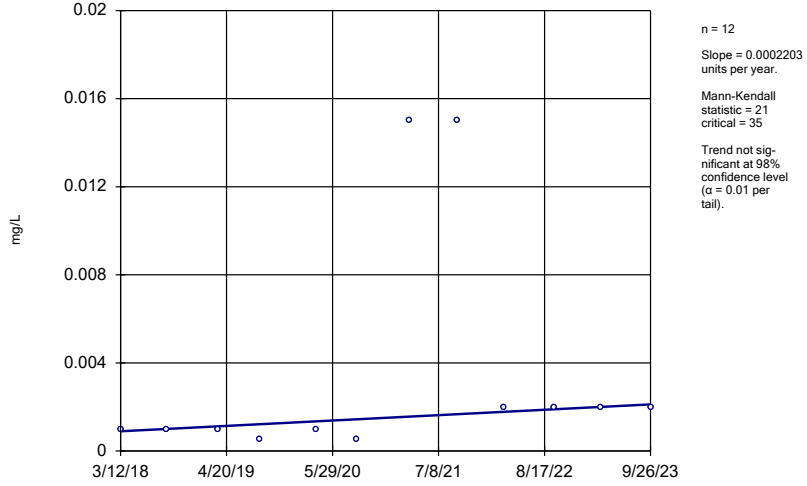
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.0002203 units per year.

Mann-Kendall statistic = 21
critical = 35

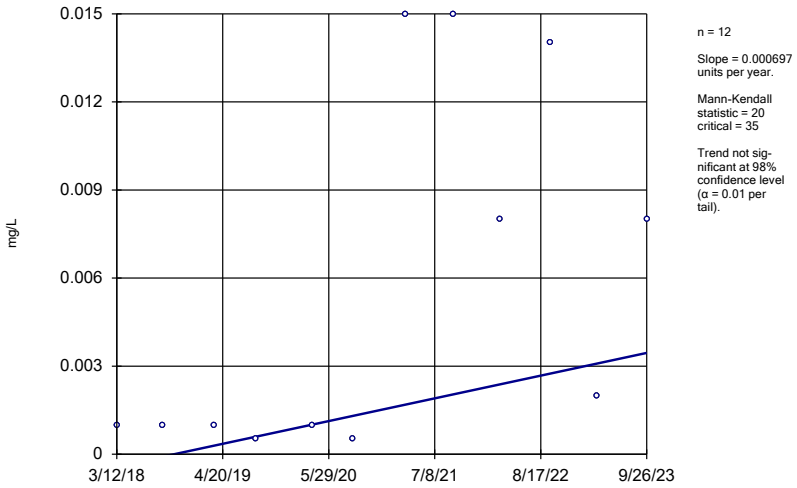
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.000697 units per year.

Mann-Kendall statistic = 20
critical = 35

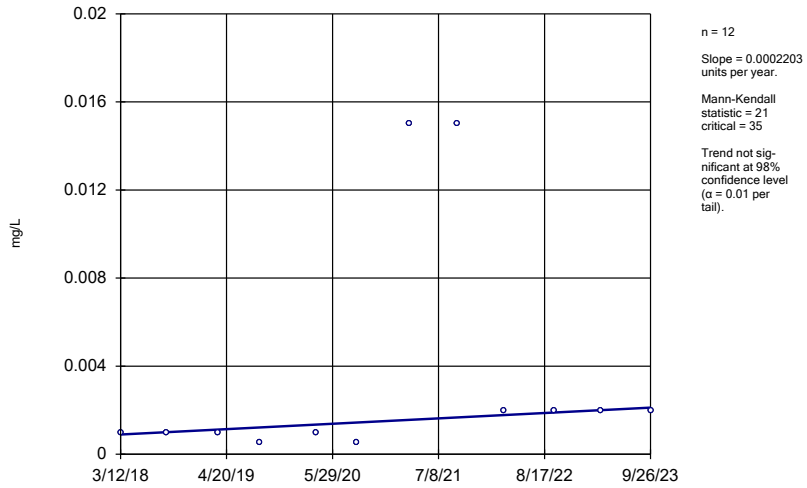
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0.0002203 units per year.

Mann-Kendall statistic = 21
critical = 35

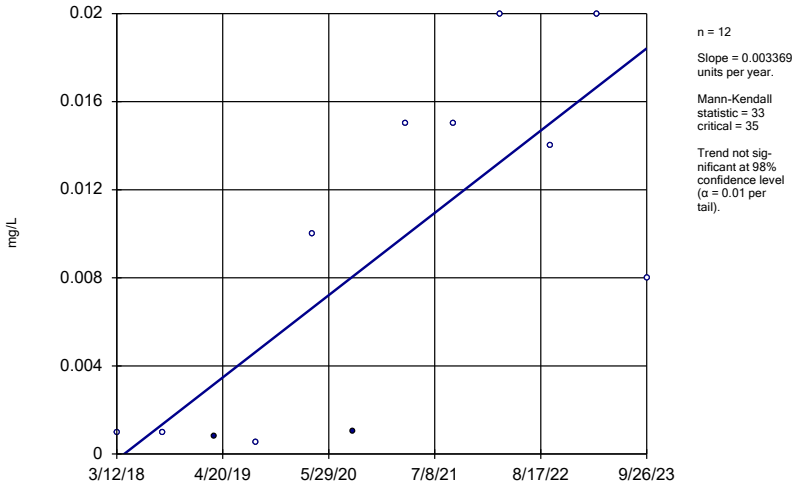
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.003369 units per year.

Mann-Kendall statistic = 33
critical = 35

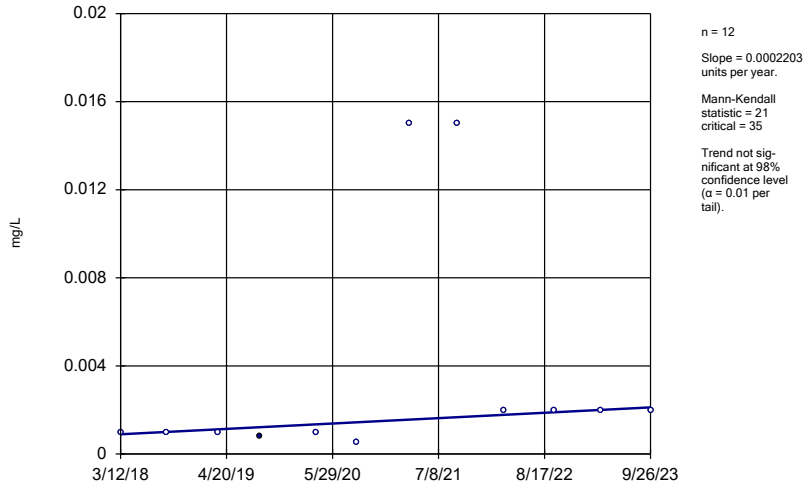
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.0002203 units per year.

Mann-Kendall statistic = 21
critical = 35

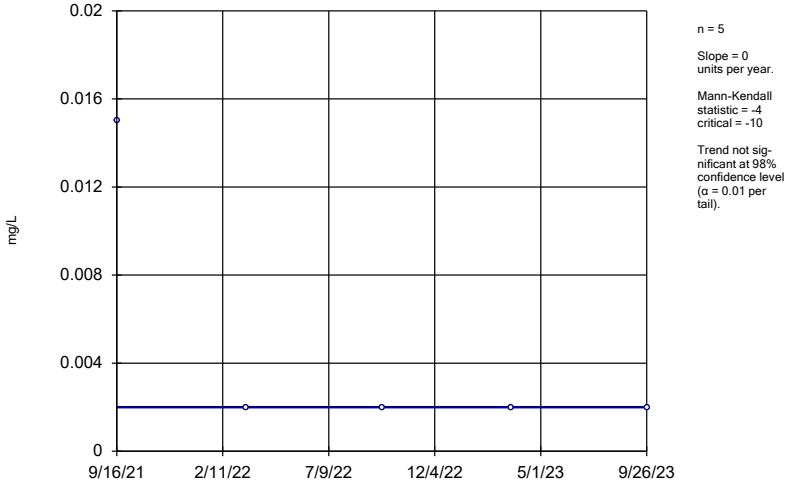
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20

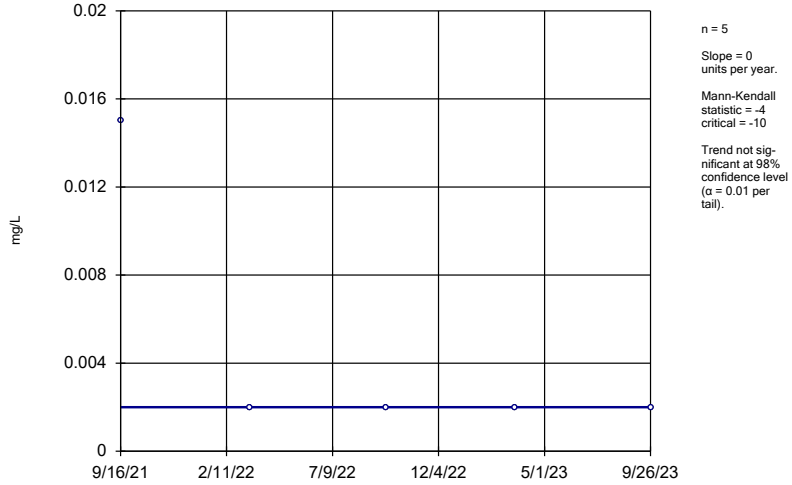


Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

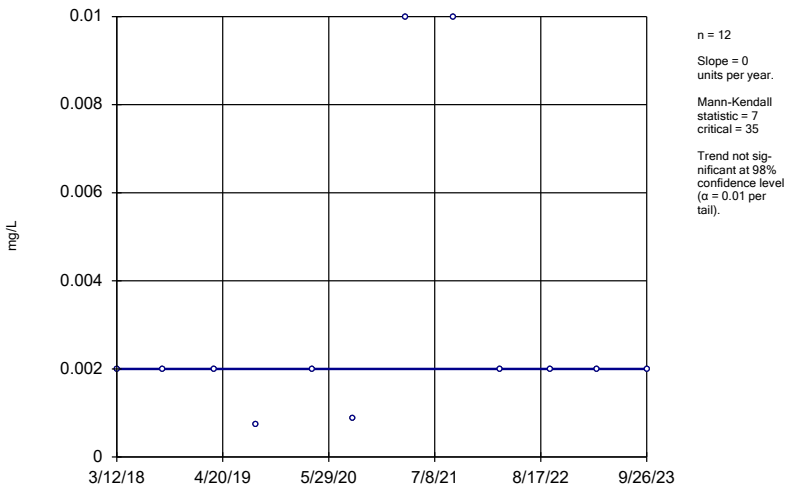


Constituent: Antimony Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

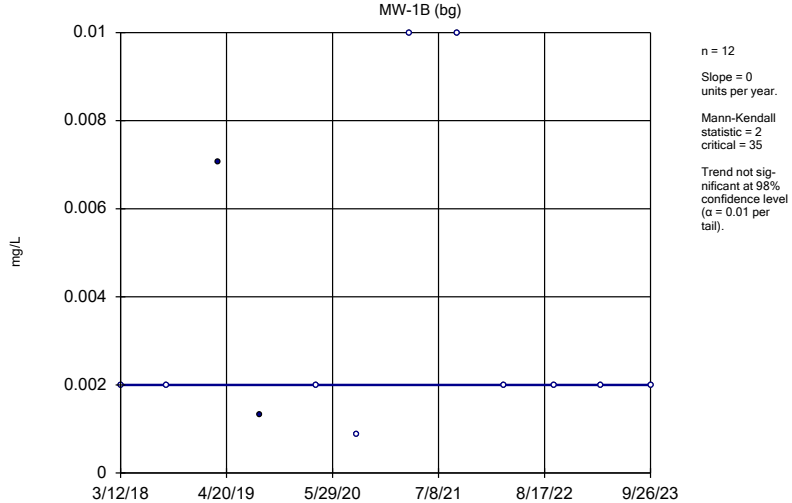


Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

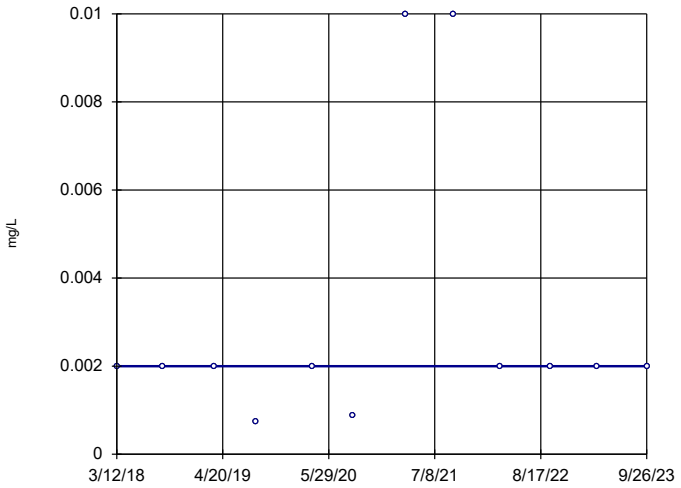


Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 7
critical = 35

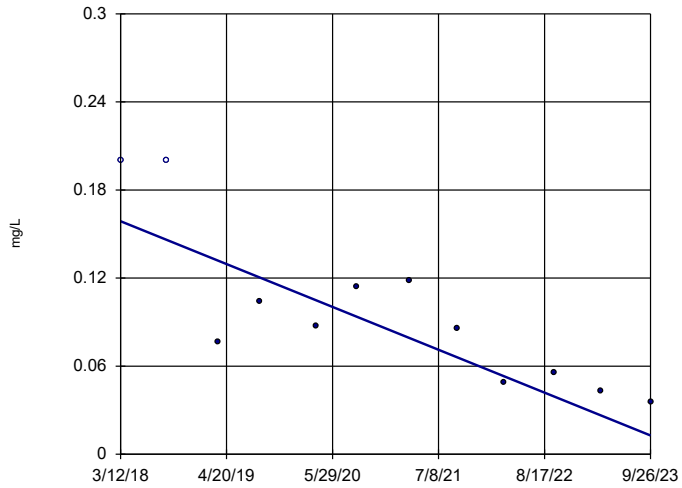
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.02631 units per year.

Mann-Kendall statistic = -43
critical = -35

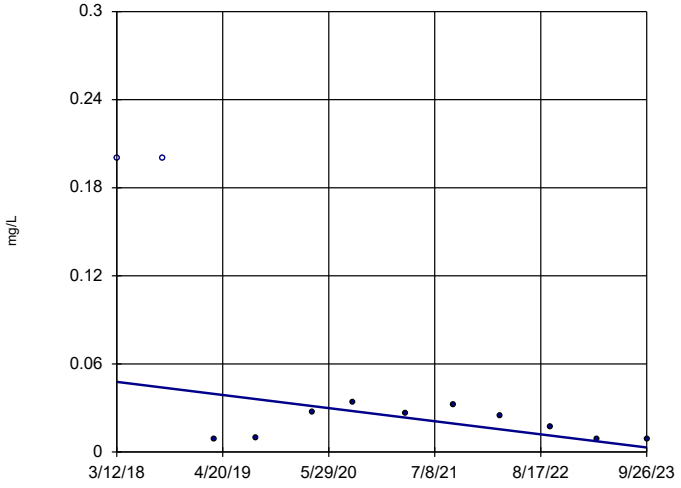
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.008047 units per year.

Mann-Kendall statistic = -33
critical = -35

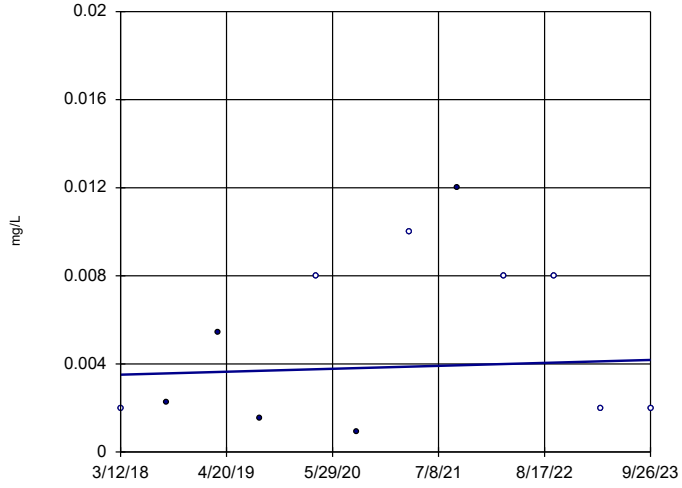
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.0001208 units per year.

Mann-Kendall statistic = 8
critical = 35

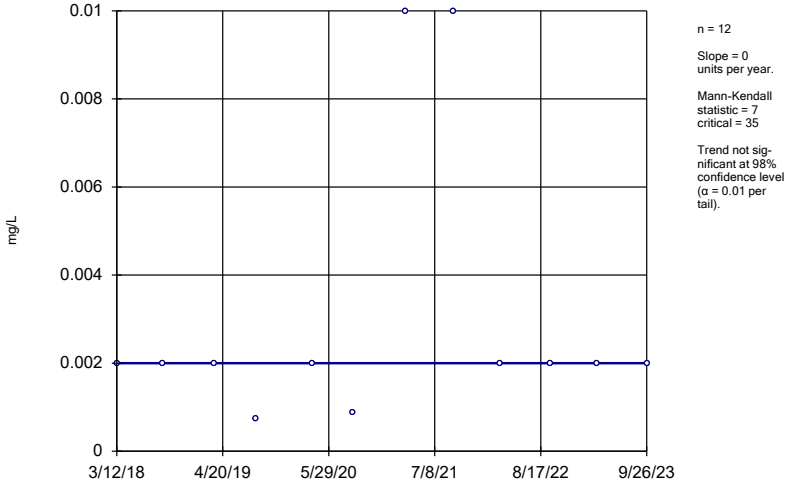
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 7
critical = 35

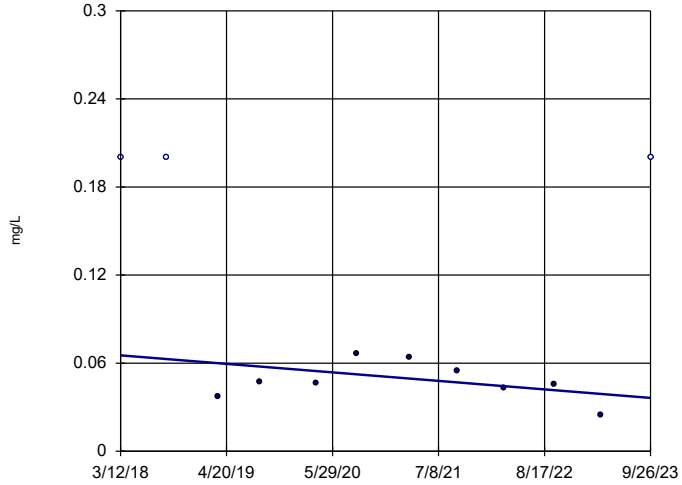
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.005235 units per year.

Mann-Kendall statistic = -17
critical = -35

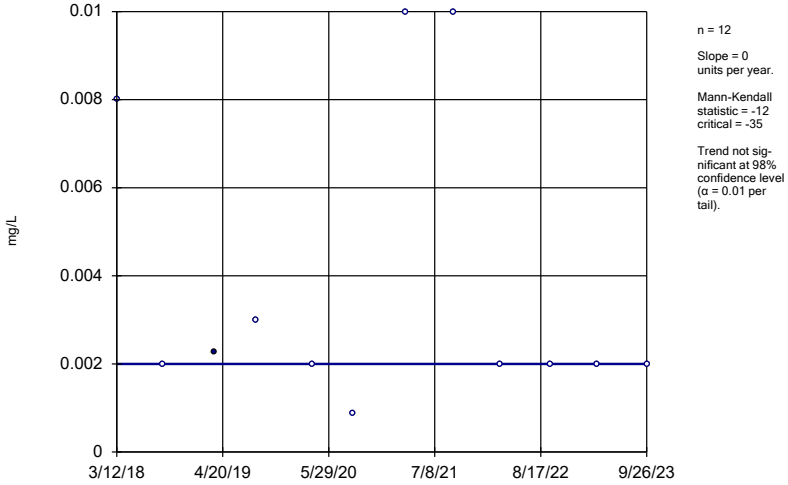
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -12
critical = -35

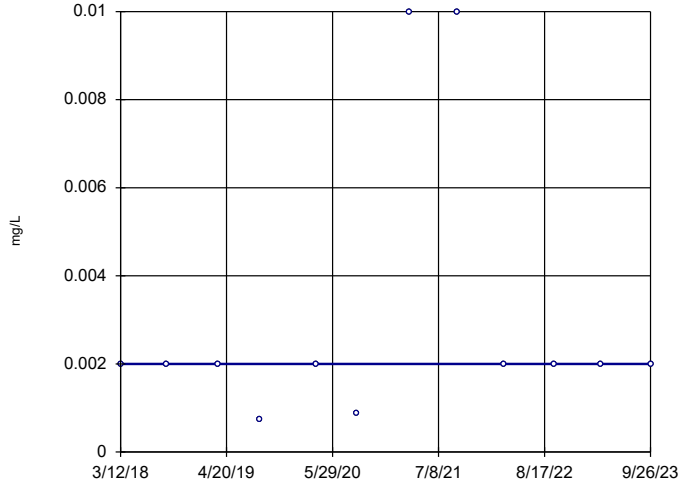
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 7
critical = 35

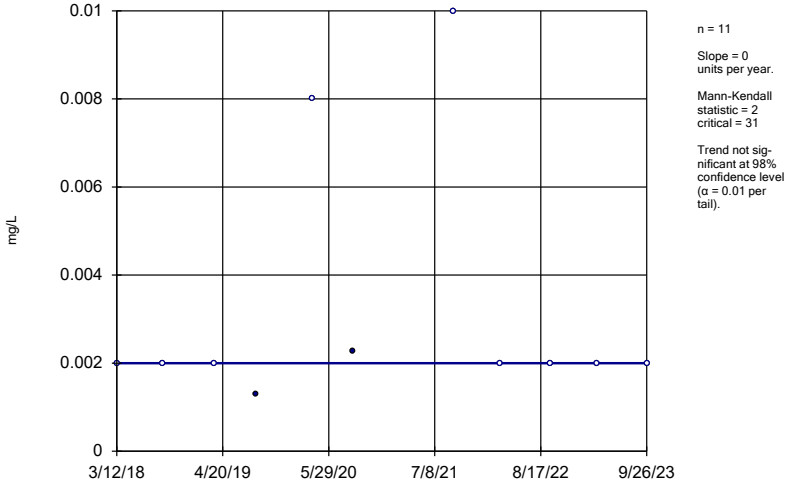
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 2 critical = 31

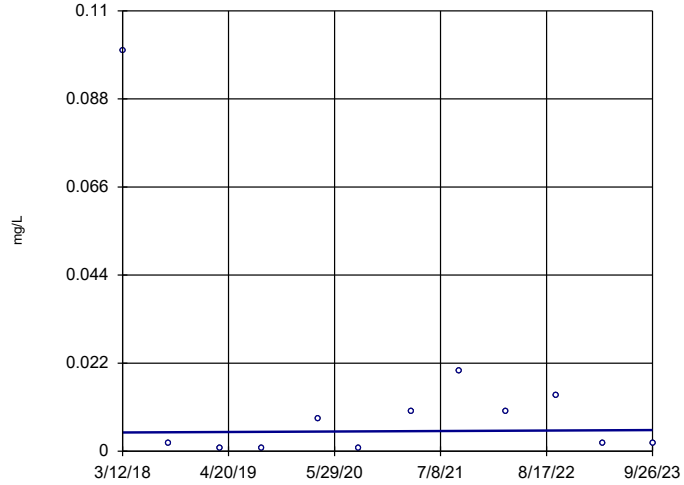
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0.0001085 units per year.

Mann-Kendall statistic = 7 critical = 35

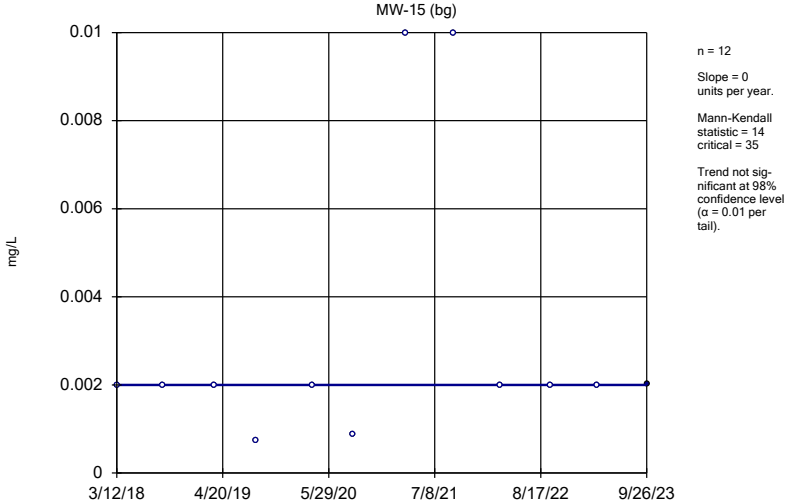
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 14 critical = 35

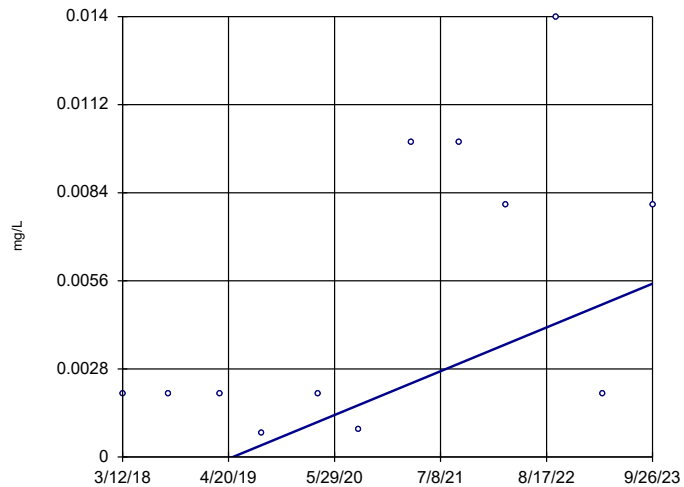
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.001255 units per year.

Mann-Kendall statistic = 22 critical = 35

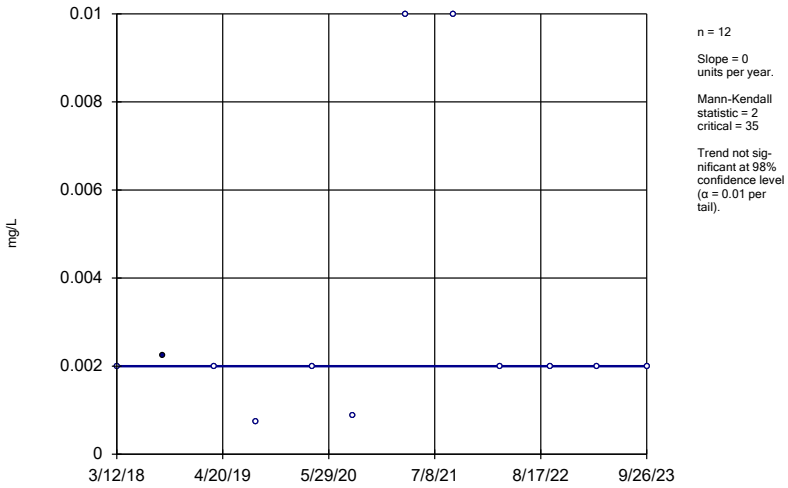
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 35

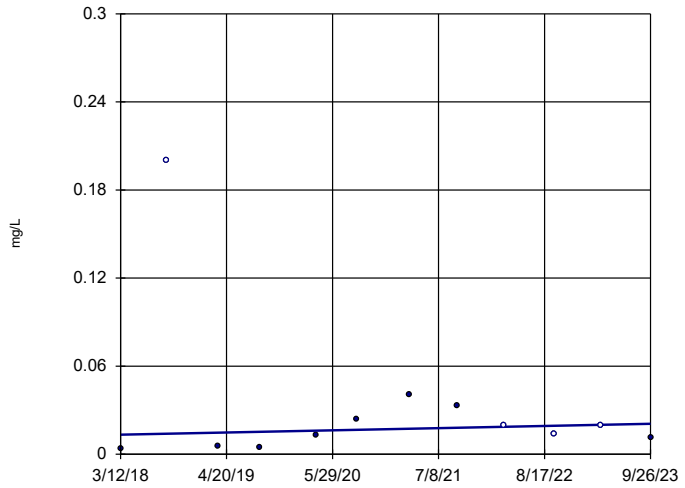
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.001352 units per year.

Mann-Kendall statistic = 7
critical = 35

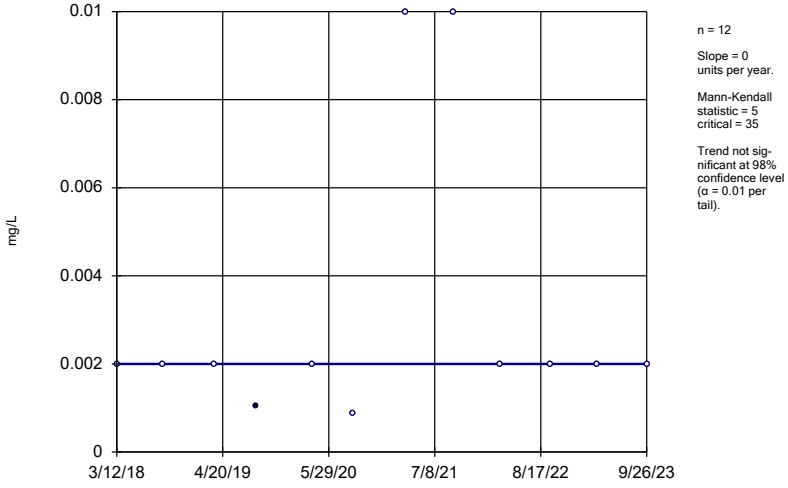
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

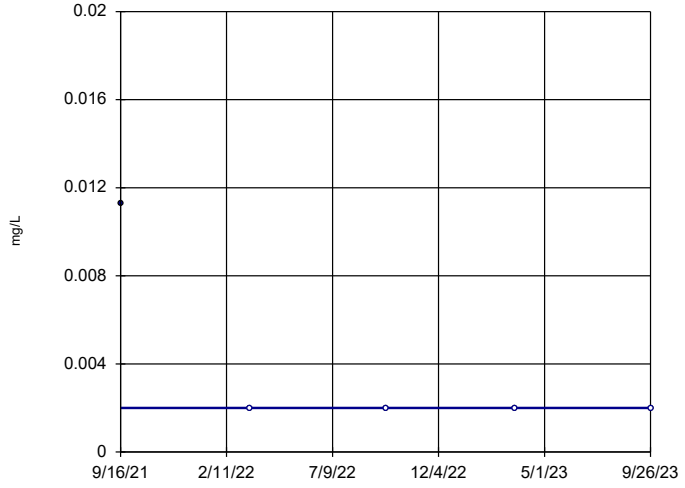
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

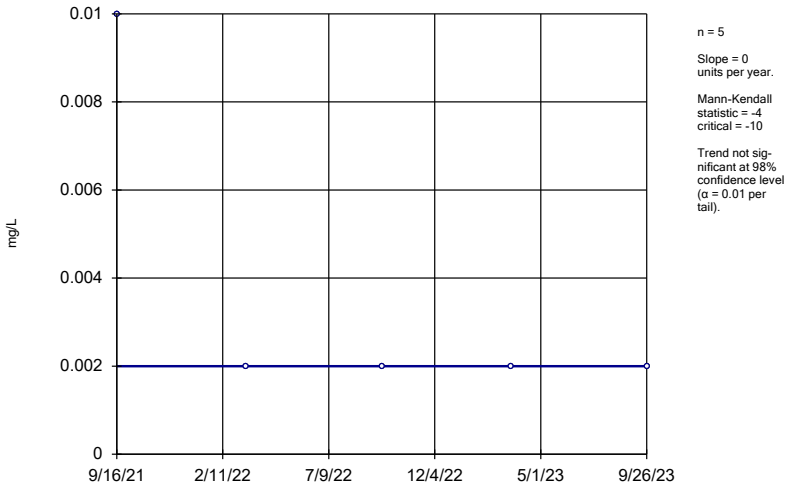
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

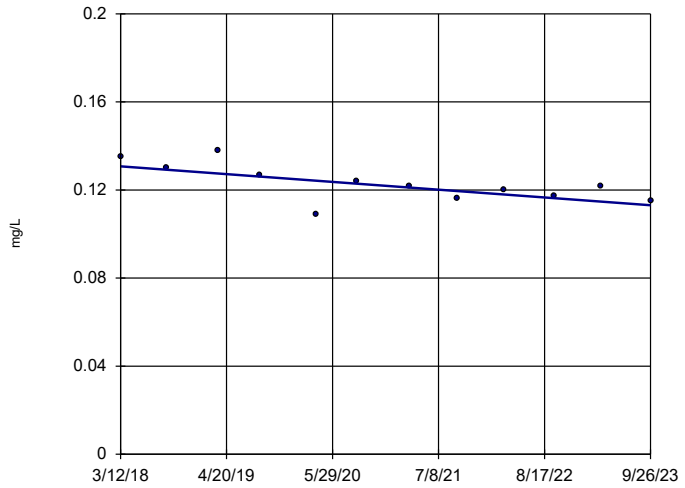
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Arsenic Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.00318 units per year.

Mann-Kendall statistic = -37
critical = -35

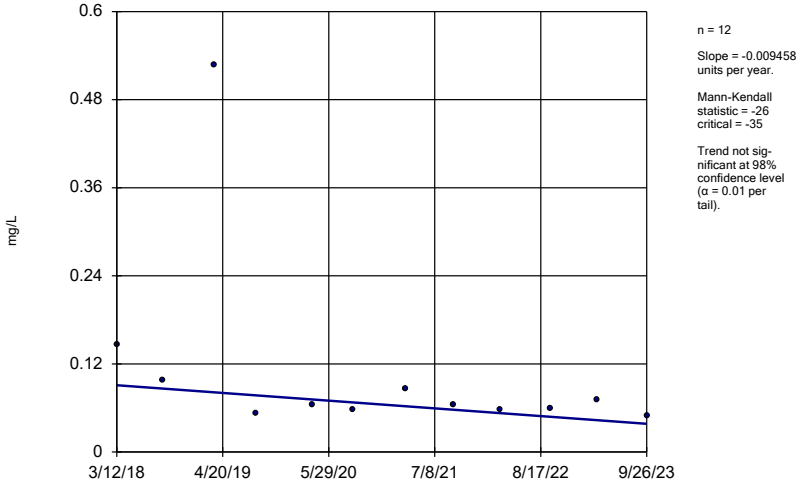
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -0.009458 units per year.

Mann-Kendall statistic = -26
critical = -35

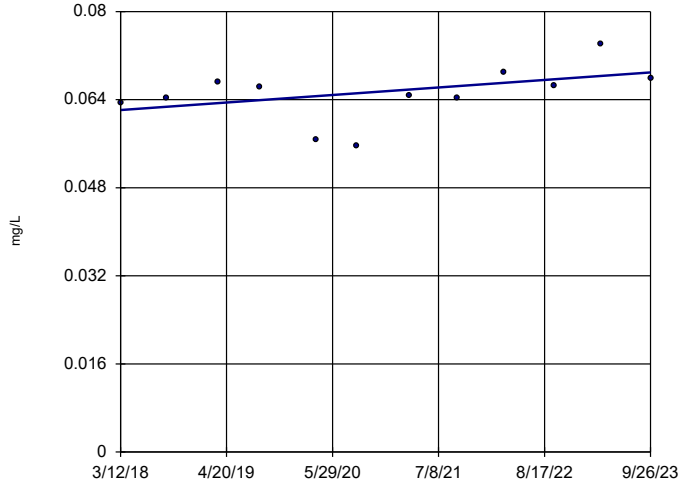
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0.001227 units per year.

Mann-Kendall statistic = 27
critical = 35

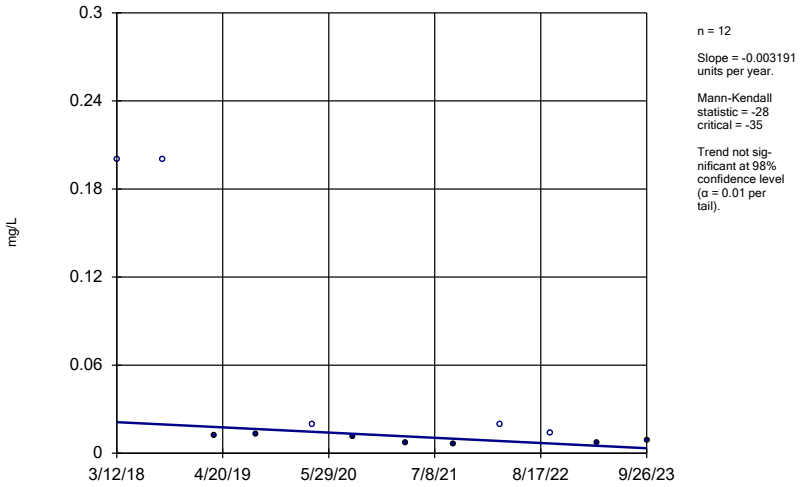
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.003191 units per year.

Mann-Kendall statistic = -28
critical = -35

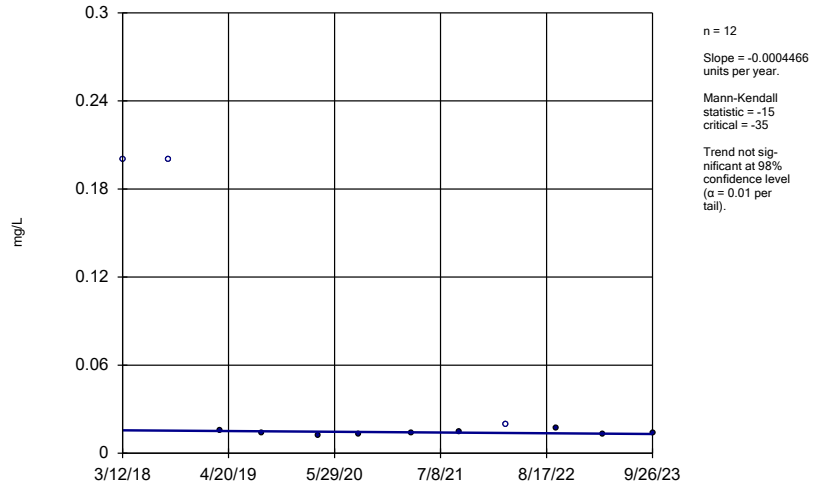
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.0004466 units per year.

Mann-Kendall statistic = -15
critical = -35

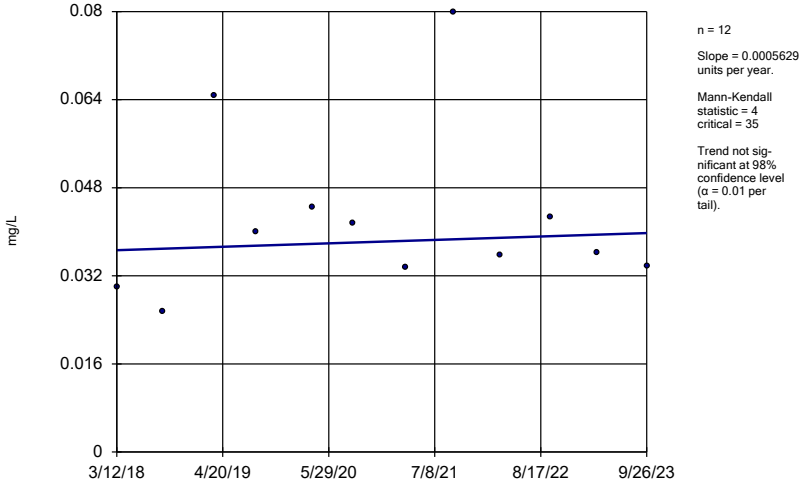
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.0005629 units per year.

Mann-Kendall statistic = 4
critical = 35

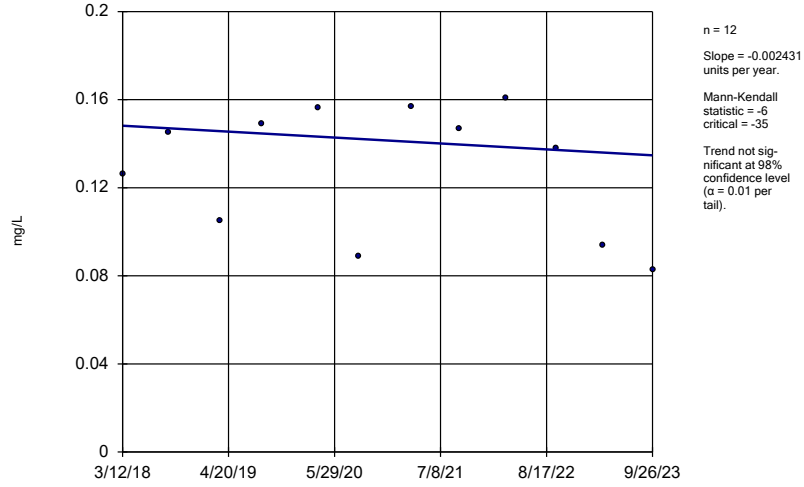
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = -0.002431 units per year.

Mann-Kendall statistic = -6
critical = -35

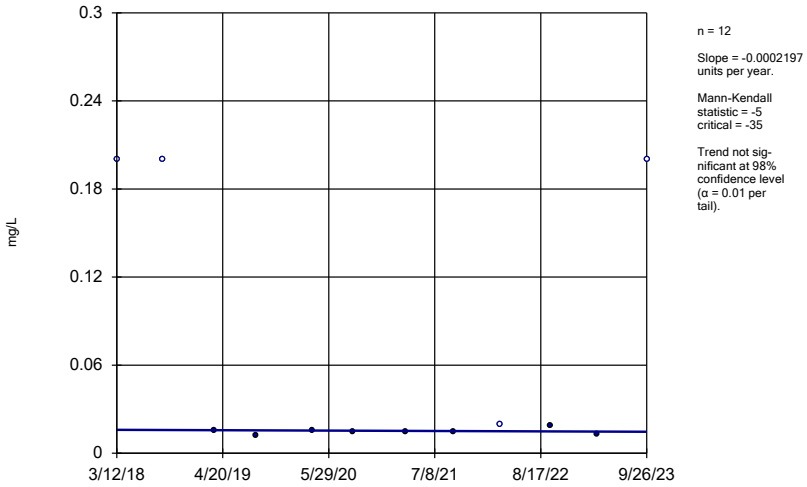
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.0002197 units per year.

Mann-Kendall statistic = -5
critical = -35

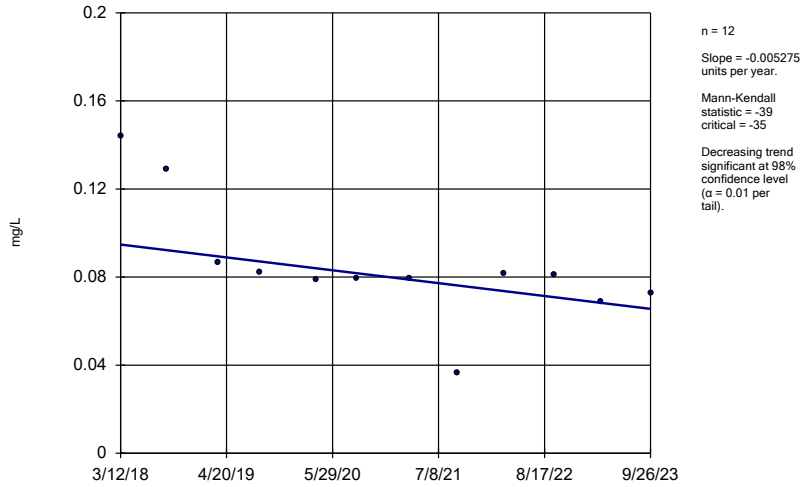
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.005275 units per year.

Mann-Kendall statistic = -39
critical = -35

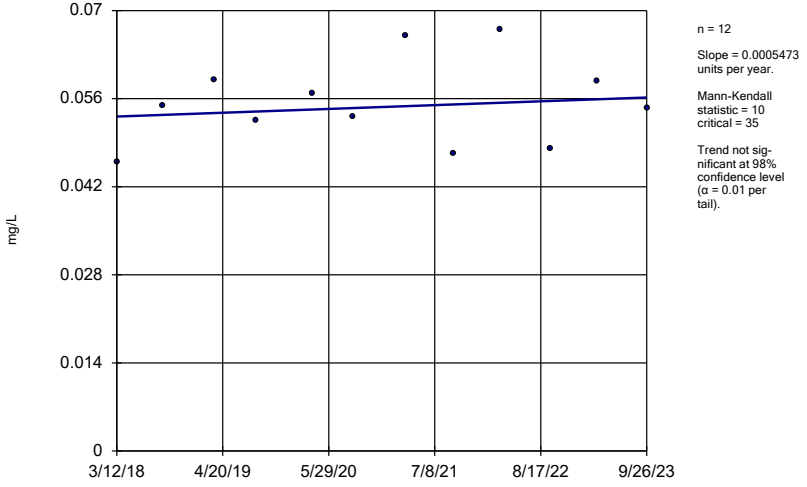
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0.0005473 units per year.

Mann-Kendall statistic = 10
critical = 35

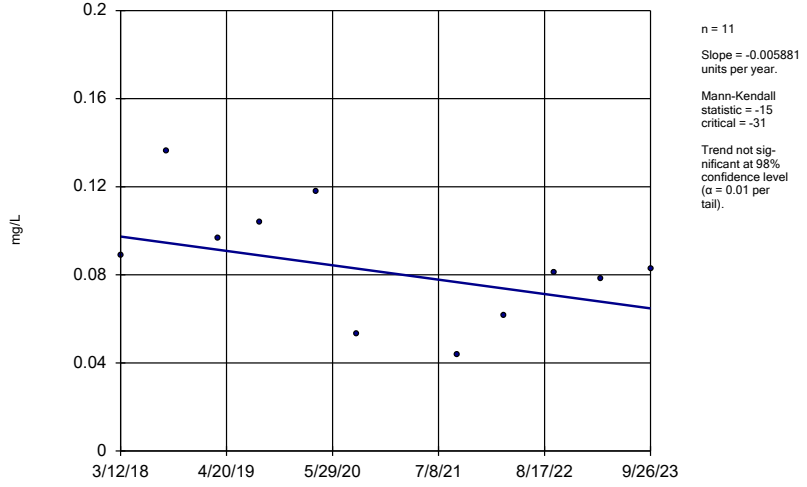
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.005881 units per year.

Mann-Kendall statistic = -15
critical = -31

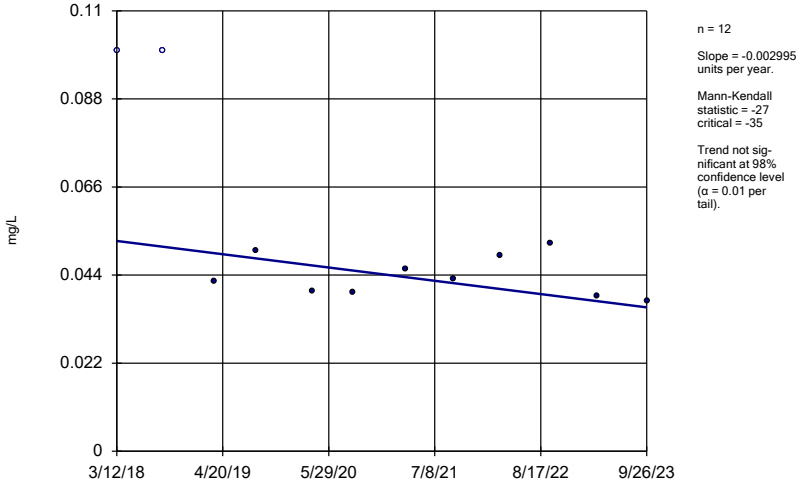
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.002995 units per year.

Mann-Kendall statistic = -27
critical = -35

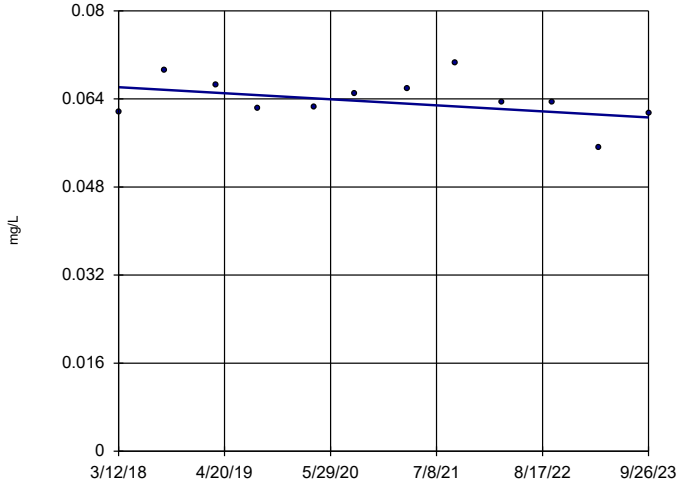
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = -0.0009885 units per year.

Mann-Kendall statistic = -12
critical = -35

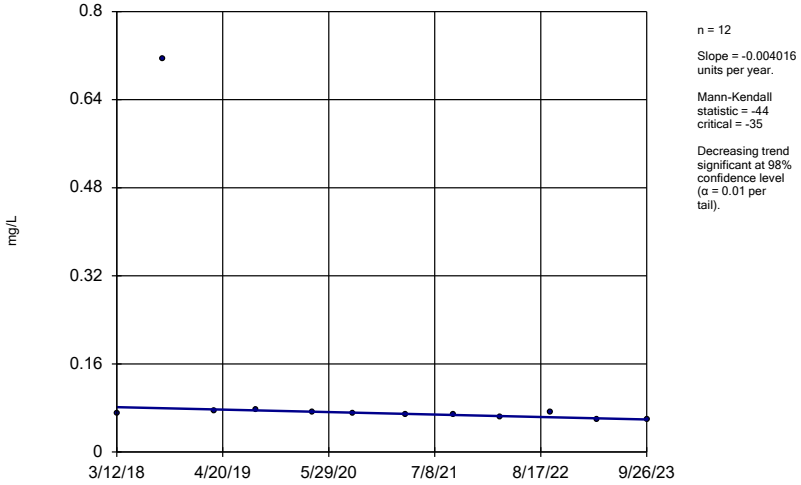
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16



n = 12

Slope = -0.004016 units per year.

Mann-Kendall statistic = -44
critical = -35

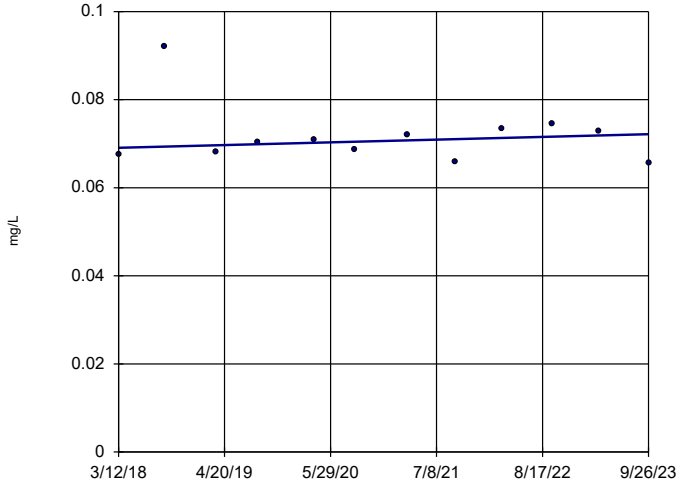
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0.0005607 units per year.

Mann-Kendall statistic = 6
critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

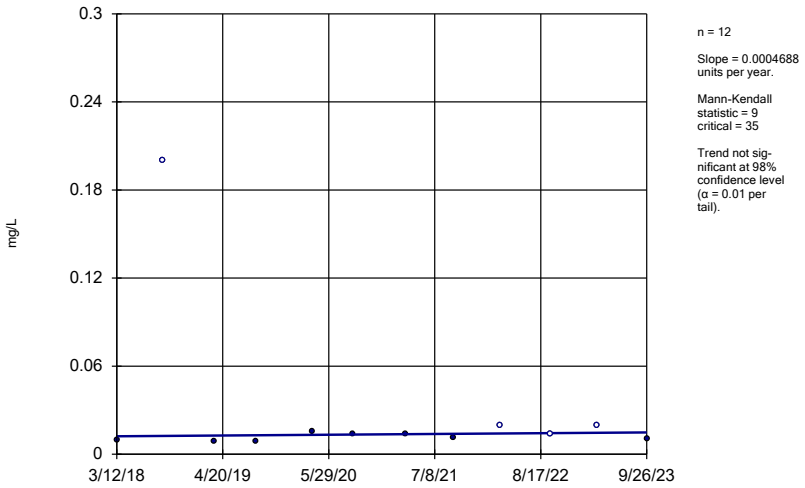
Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.0004688 units per year.

Mann-Kendall statistic = 9
critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

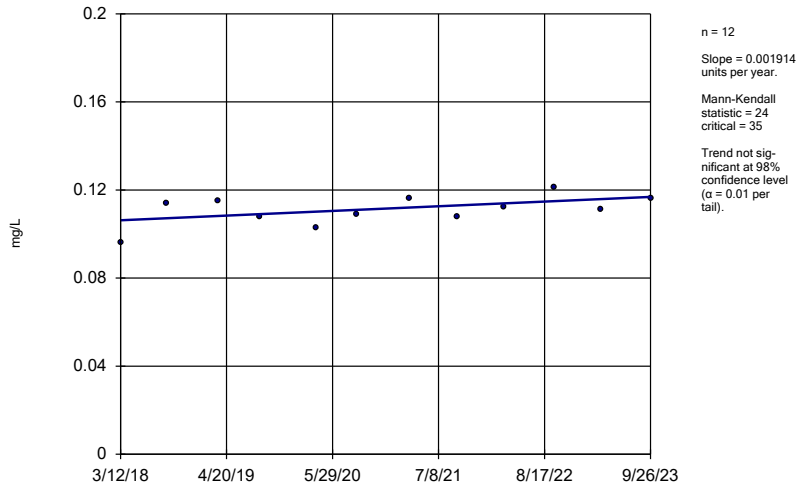
Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.001914 units per year.

Mann-Kendall statistic = 24
critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

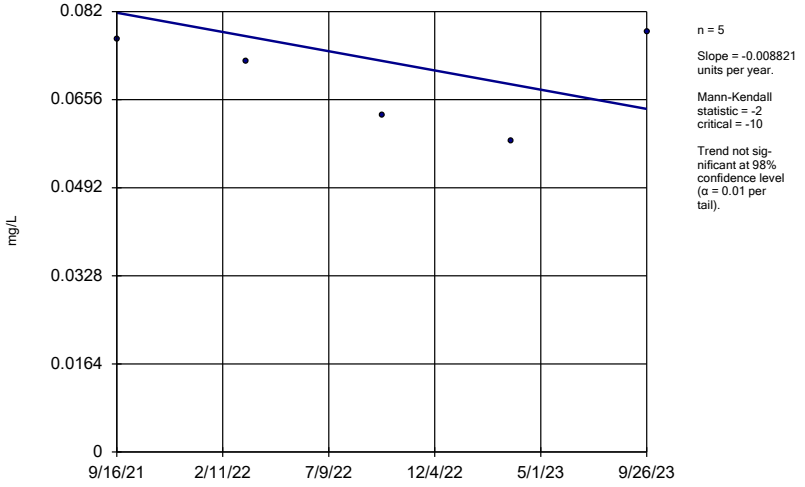
Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20



n = 5

Slope = -0.008821 units per year.

Mann-Kendall statistic = -2
critical = -10

Trend not significant at 98% confidence level (α = 0.01 per tail).

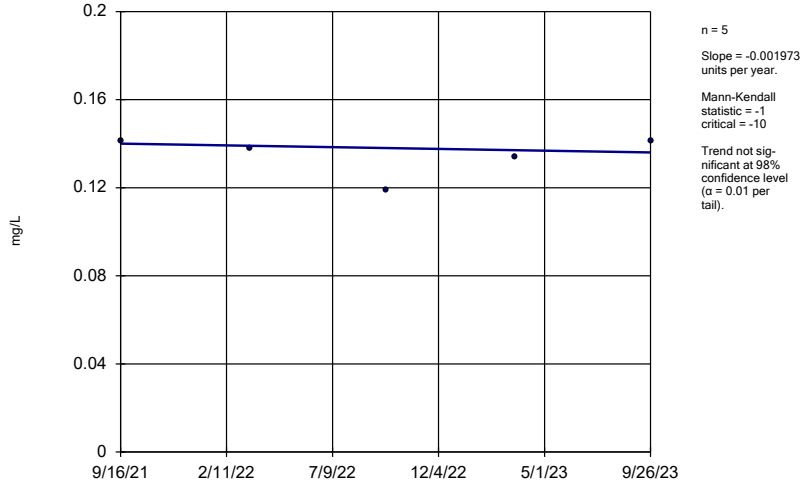
Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21



n = 5

Slope = -0.001973 units per year.

Mann-Kendall statistic = -1
critical = -10

Trend not significant at 98% confidence level (α = 0.01 per tail).

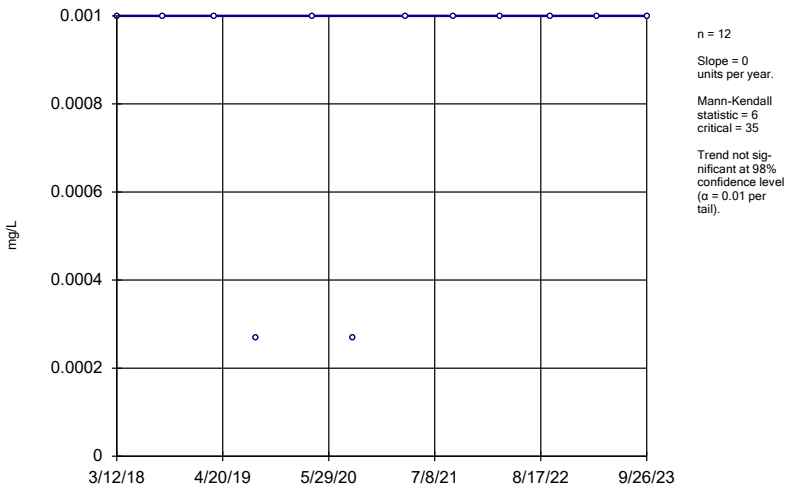
Constituent: Barium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

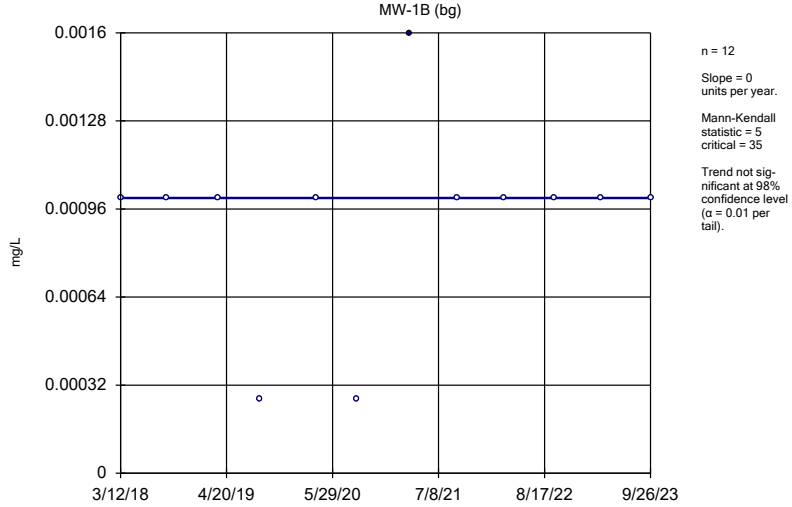


Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

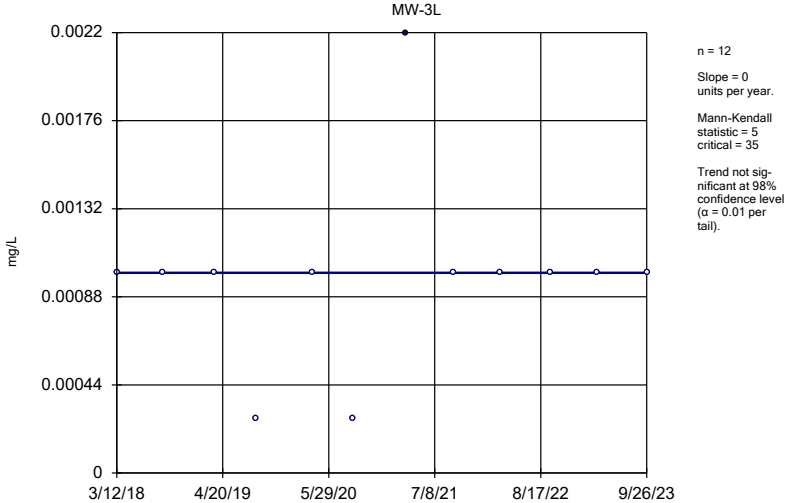


Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

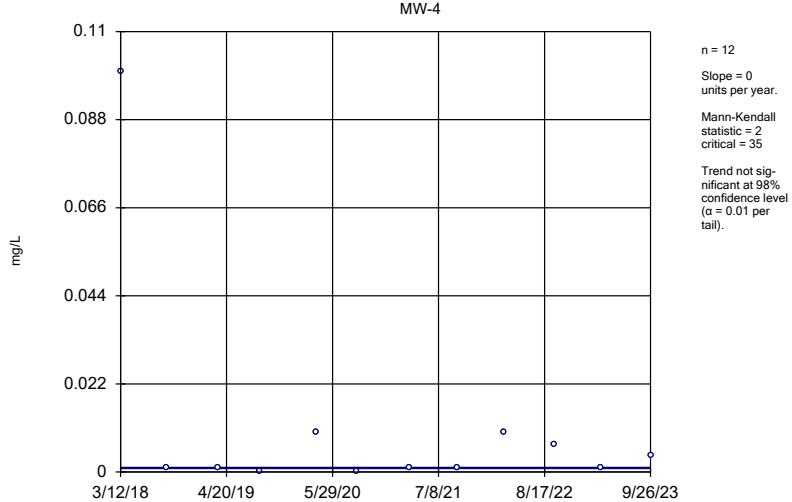


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Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4

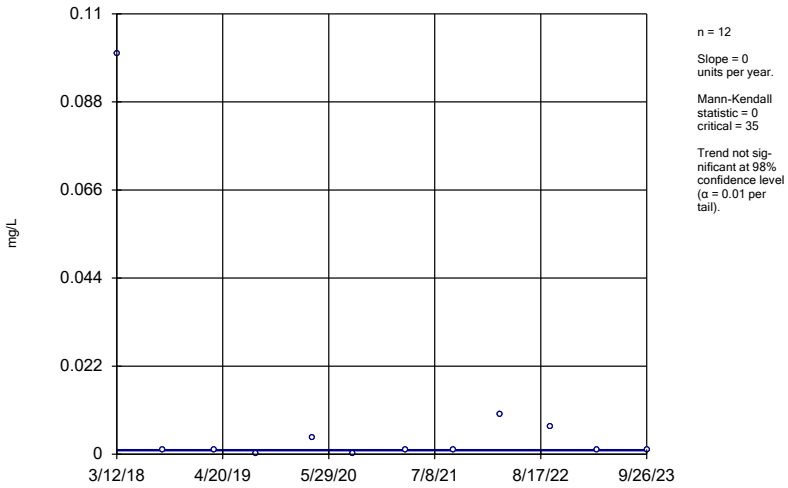


Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 35

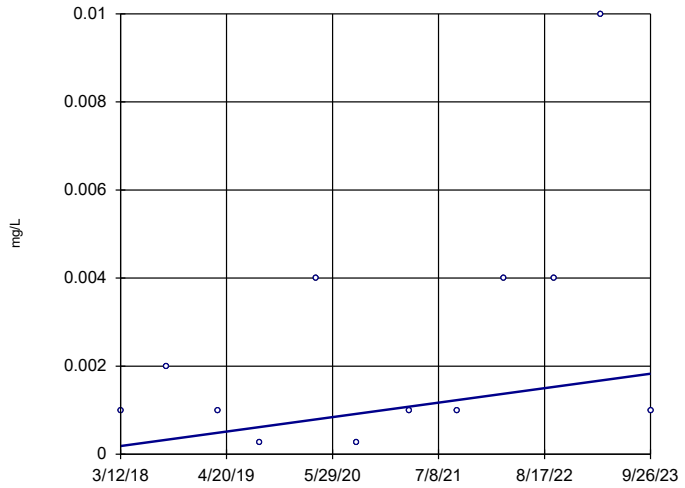
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.0002963 units per year.

Mann-Kendall statistic = 18
critical = 35

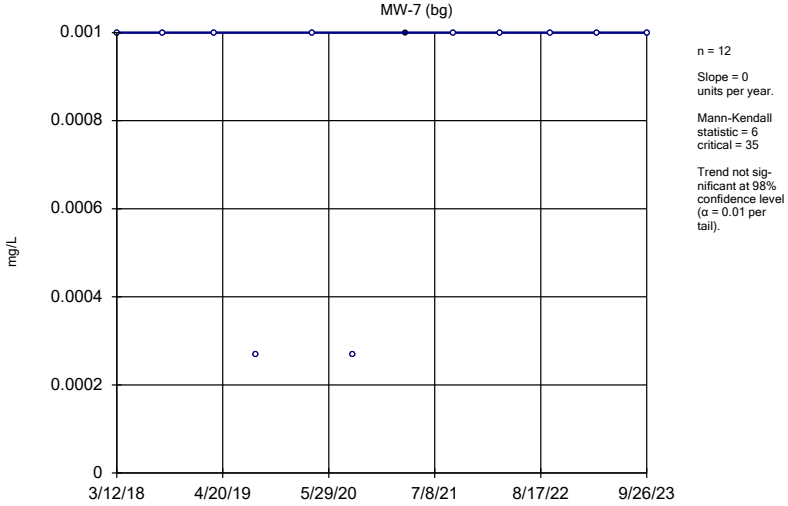
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

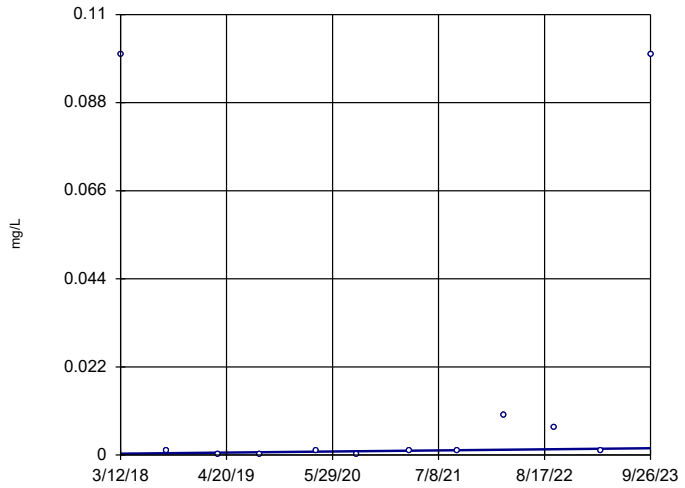
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.0002454 units per year.

Mann-Kendall statistic = 18
critical = 35

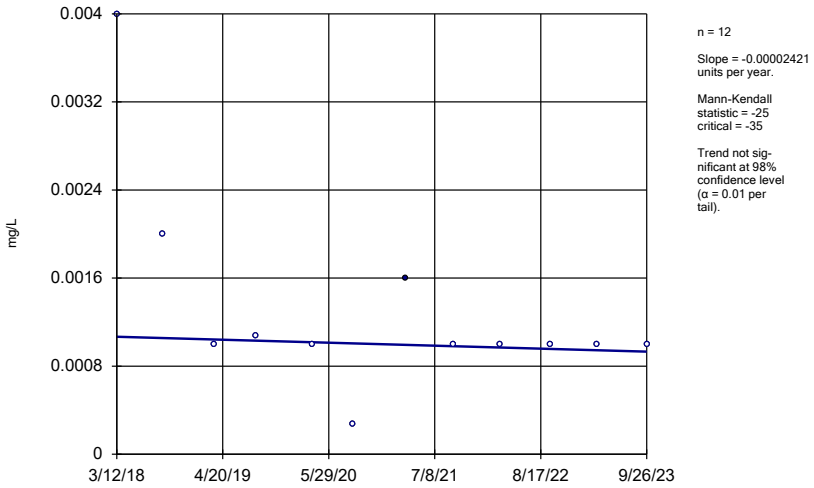
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.00002421 units per year.

Mann-Kendall statistic = -25
critical = -35

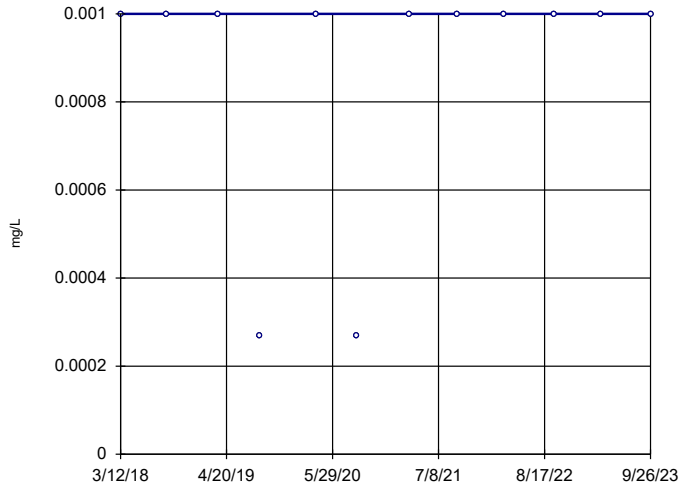
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

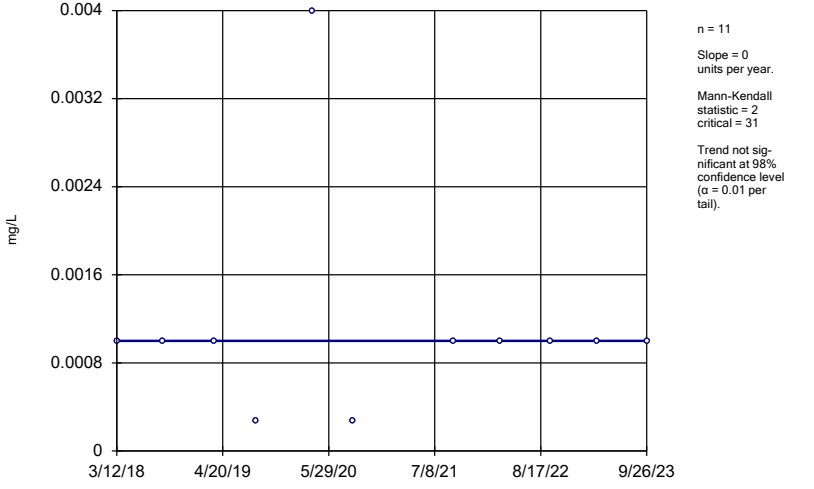
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 31

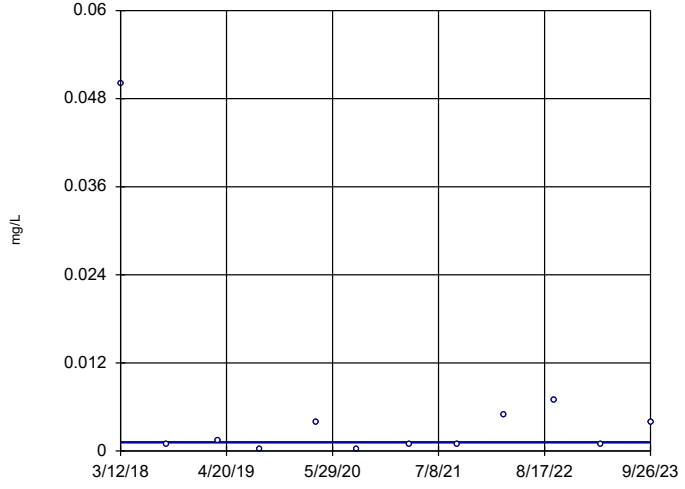
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

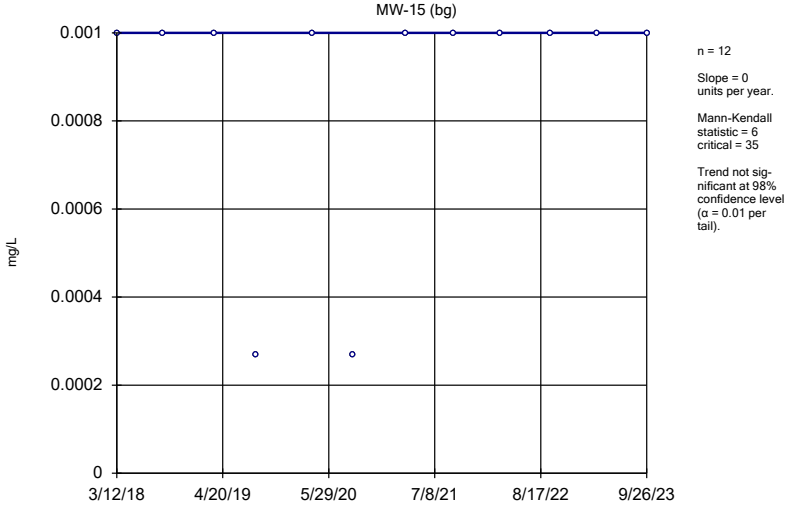
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

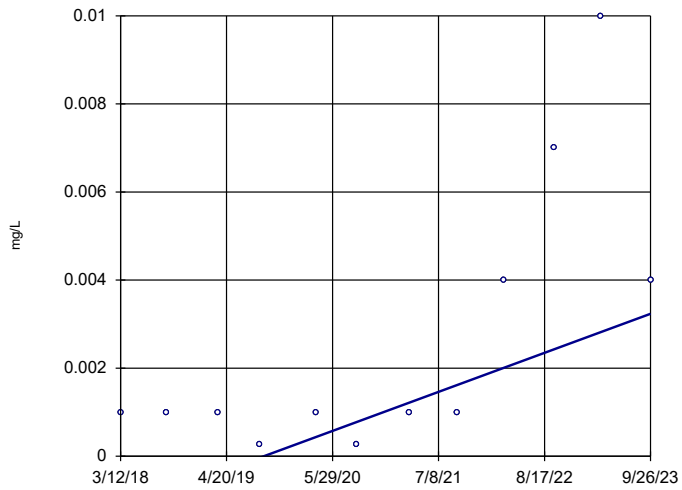
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0007991 units per year.

Mann-Kendall statistic = 31
critical = 35

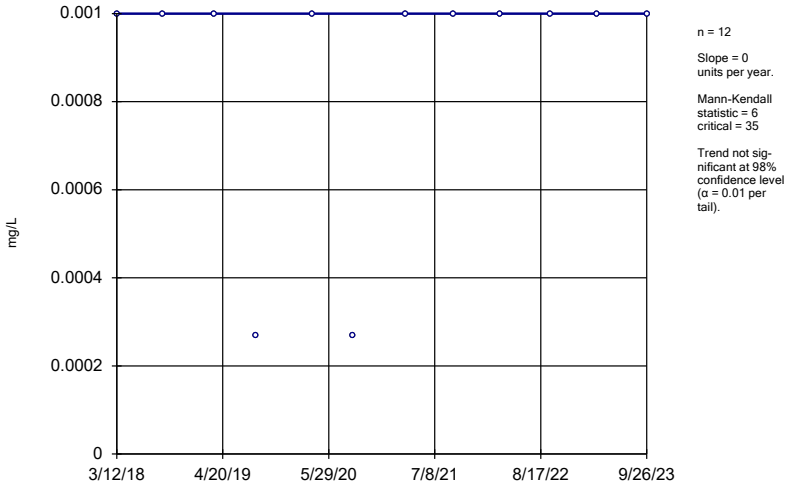
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

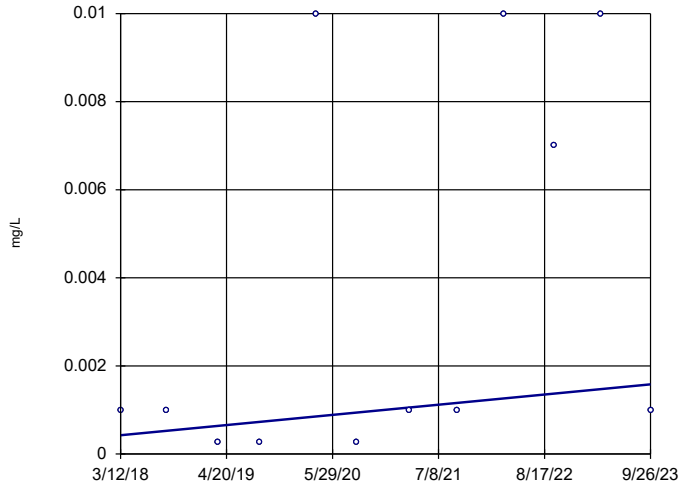
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.0002083 units per year.

Mann-Kendall statistic = 20
critical = 35

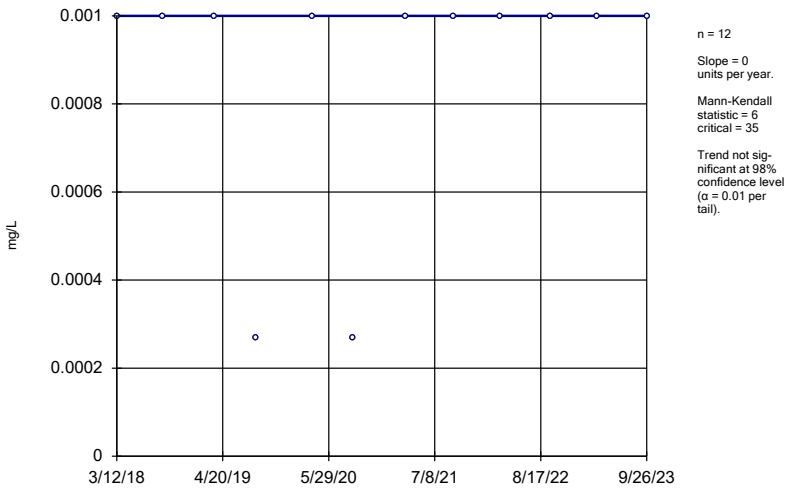
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

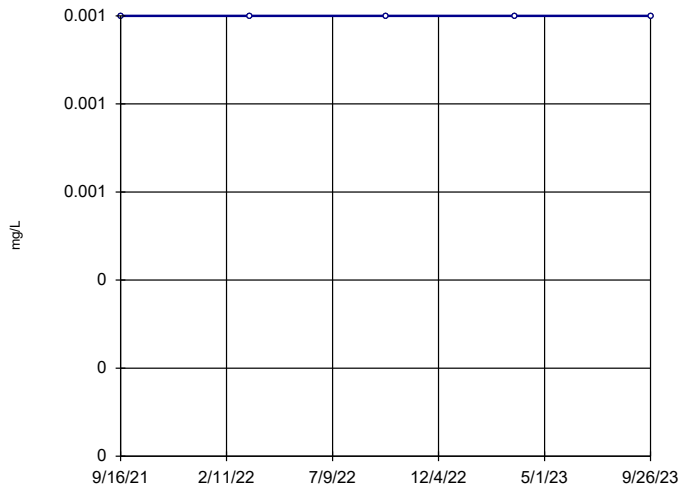
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 10

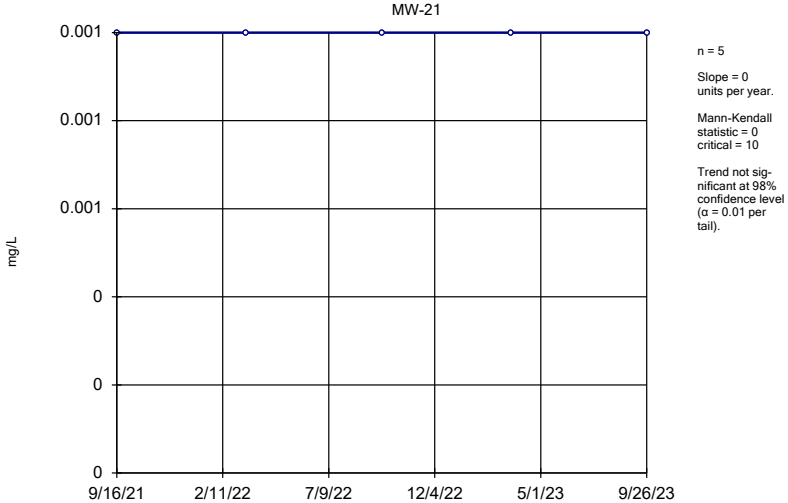
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 10

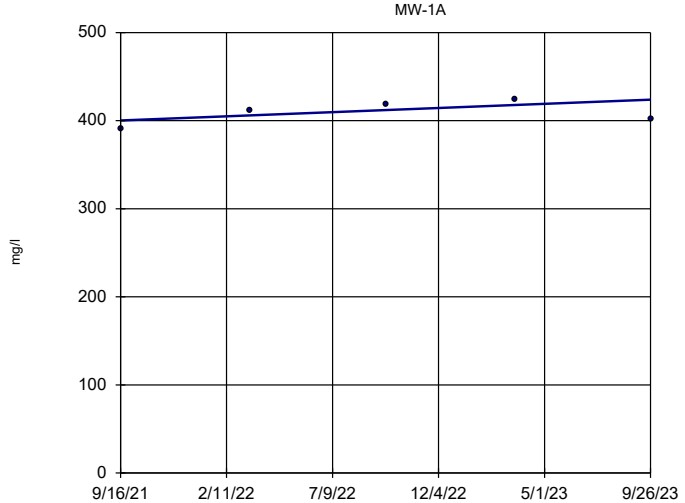
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Beryllium Total Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1A



n = 5

Slope = 11.65 units per year.

Mann-Kendall statistic = 4
critical = 10

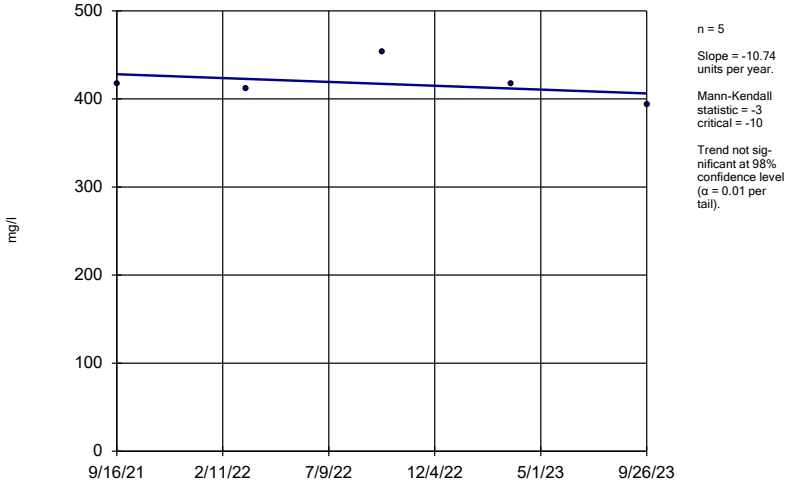
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1B (bg)



n = 5

Slope = -10.74 units per year.

Mann-Kendall statistic = -3
critical = -10

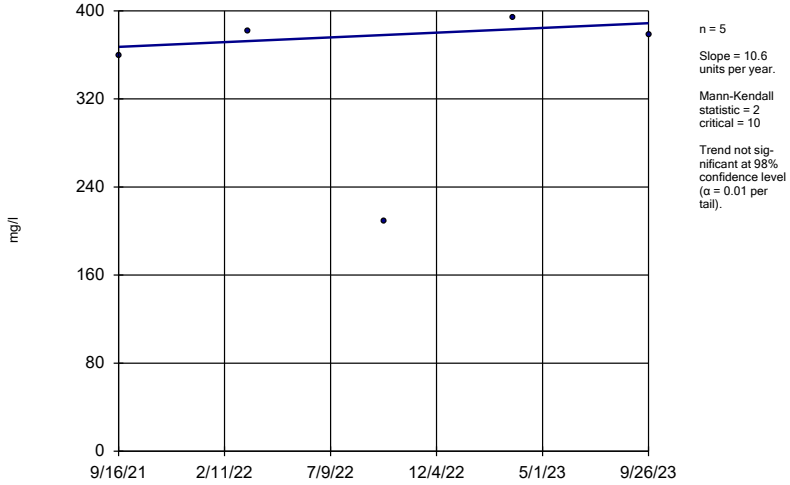
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L



n = 5

Slope = 10.6 units per year.

Mann-Kendall statistic = 2
critical = 10

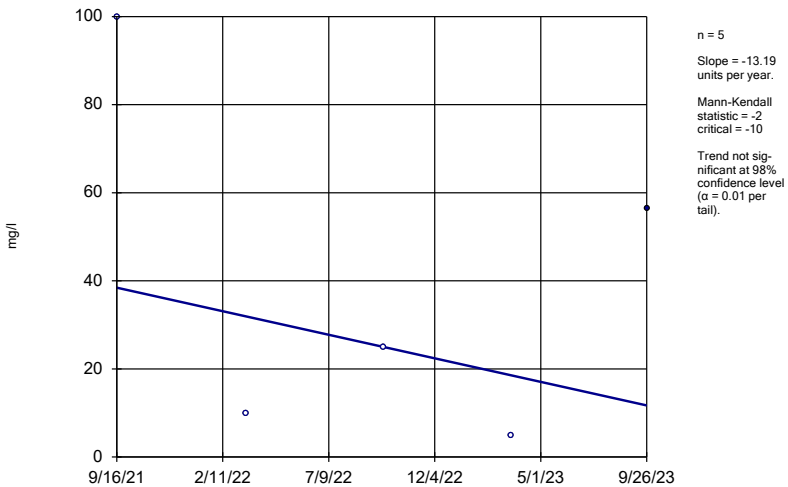
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 5

Slope = -13.19 units per year.

Mann-Kendall statistic = -2
critical = -10

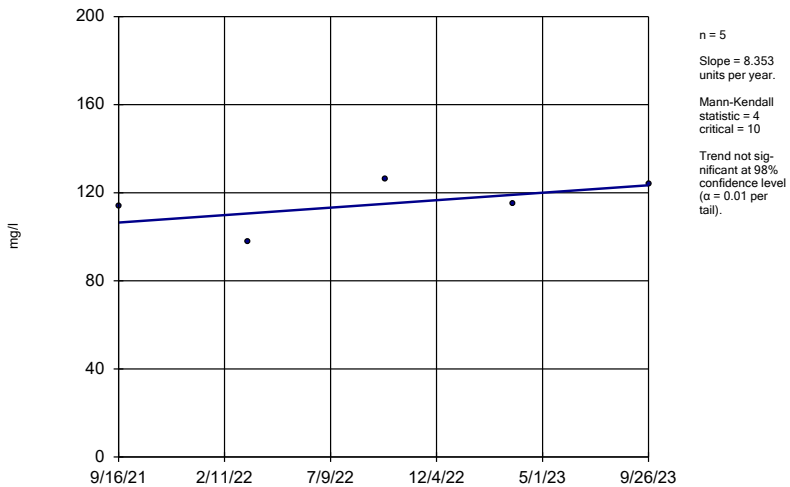
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4L



n = 5

Slope = 8.353 units per year.

Mann-Kendall statistic = 4
critical = 10

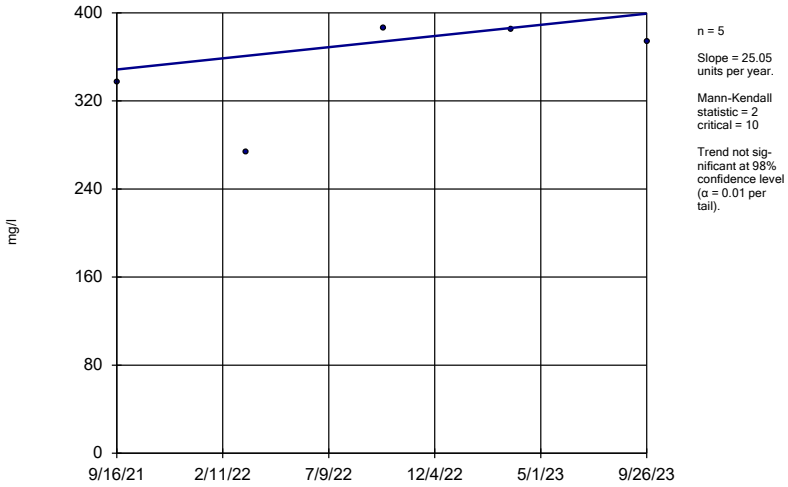
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-5

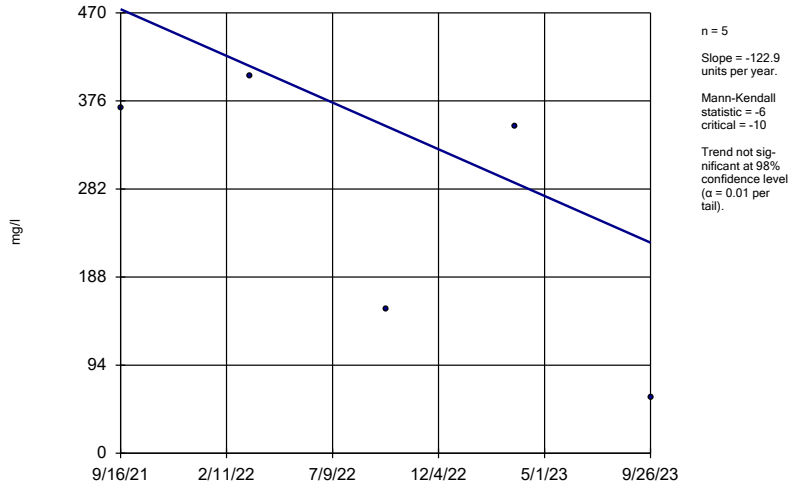


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-7 (bg)

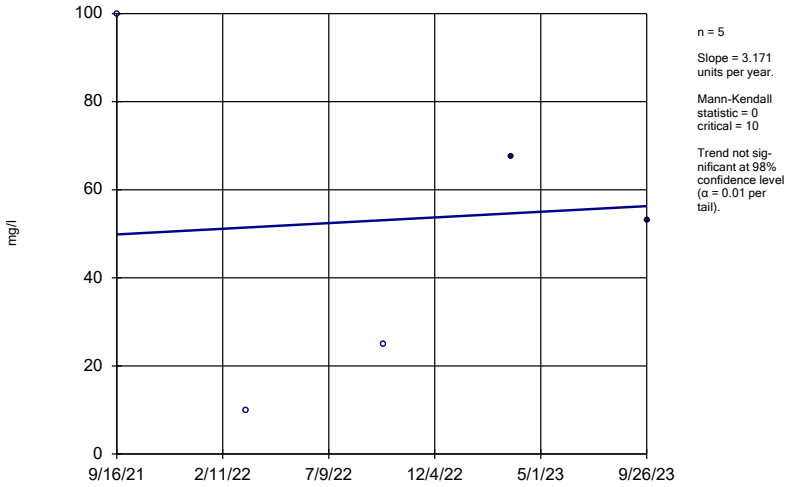


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11

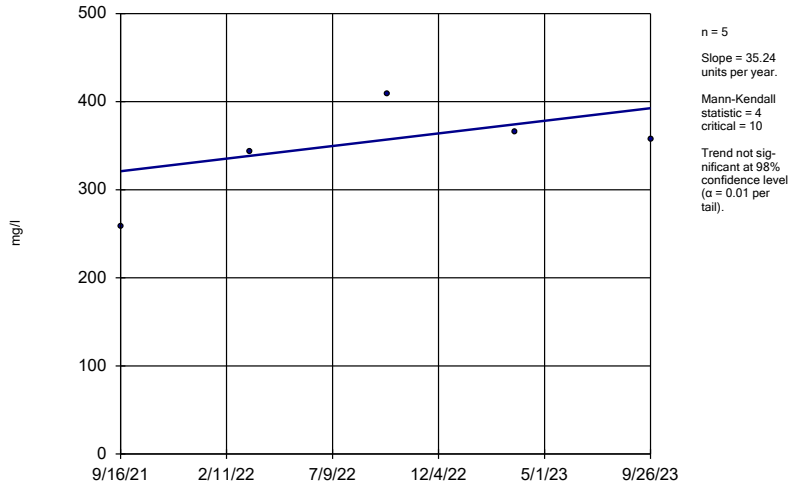


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:49 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-12

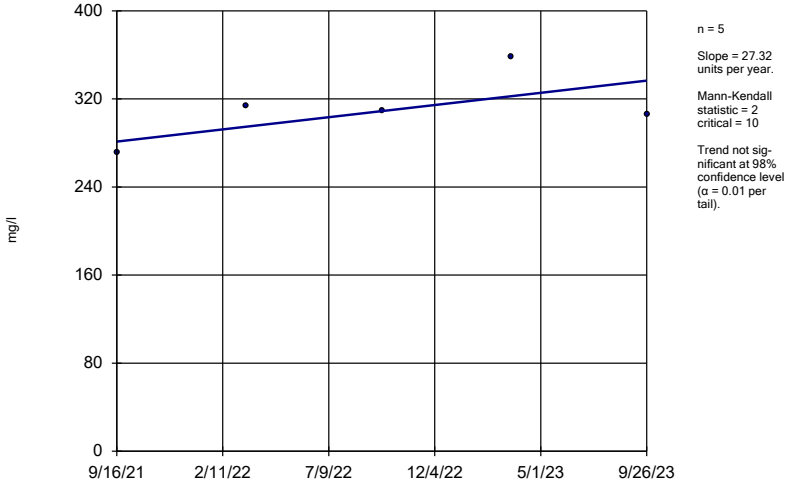


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-2A

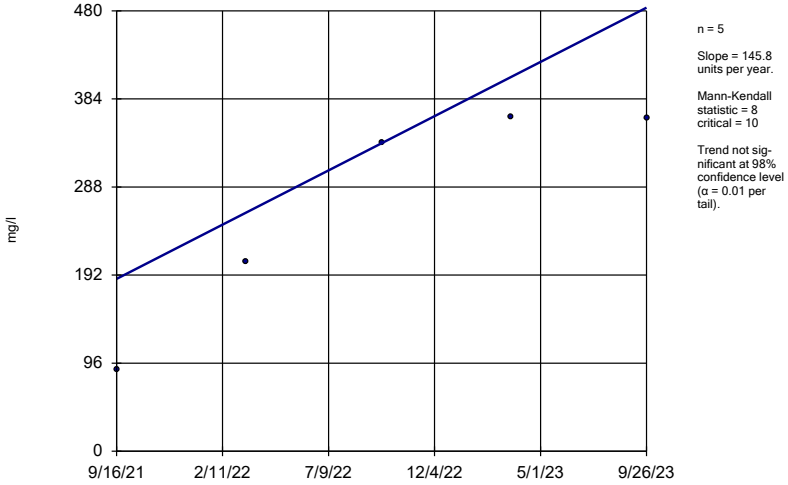


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-13 (bg)

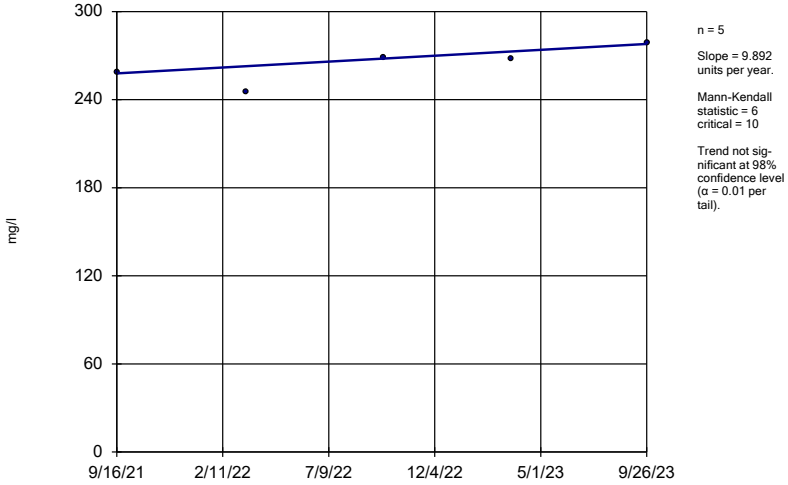


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-14

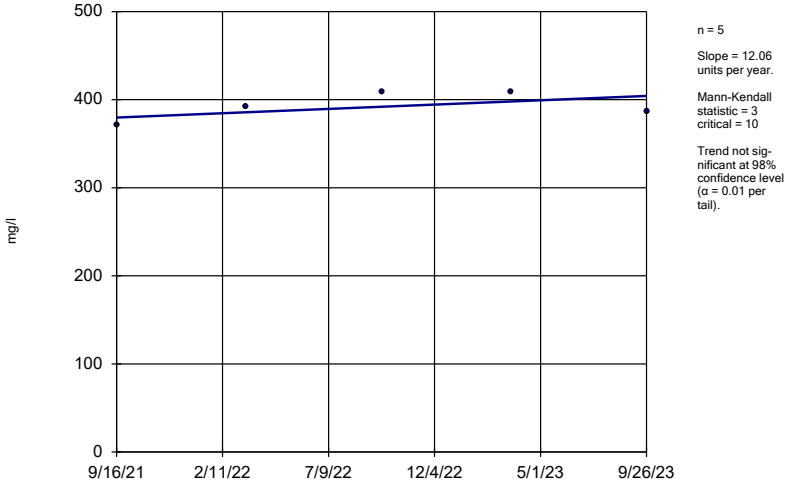


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)

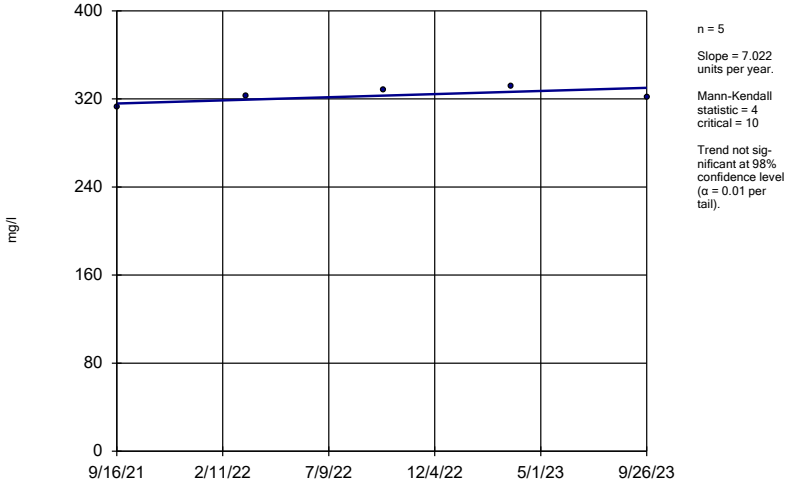


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16

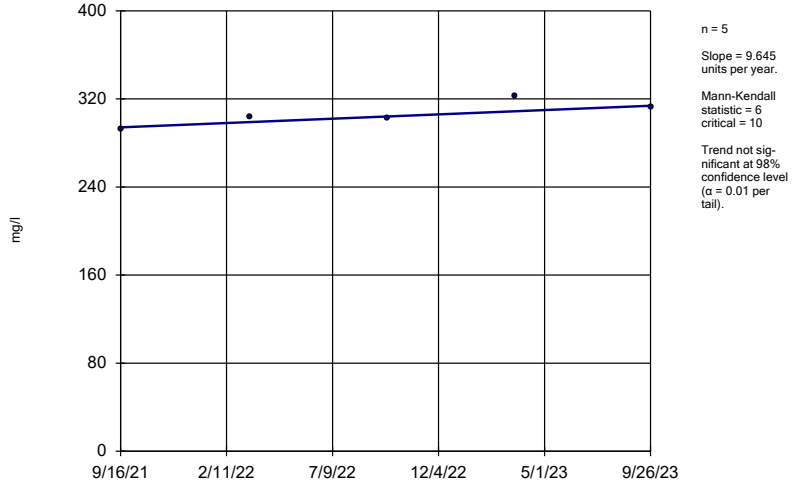


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16L

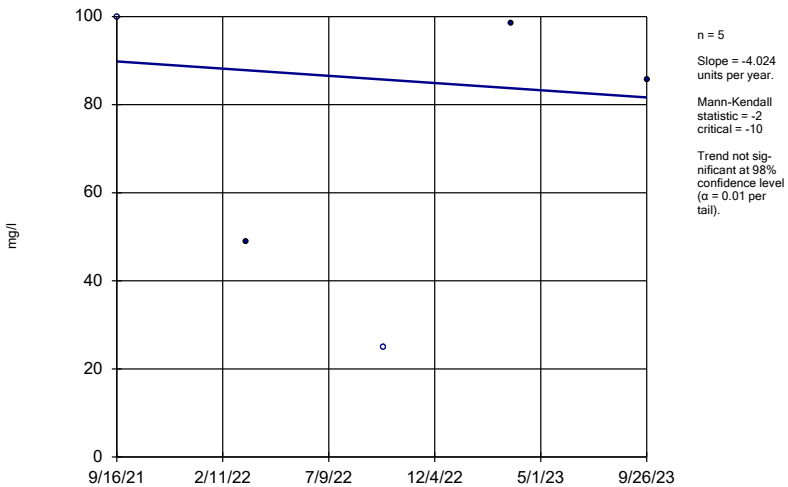


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18

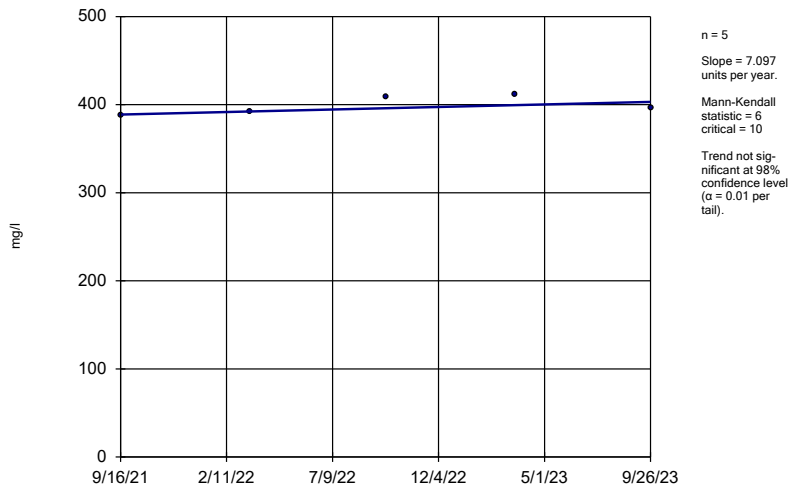


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19

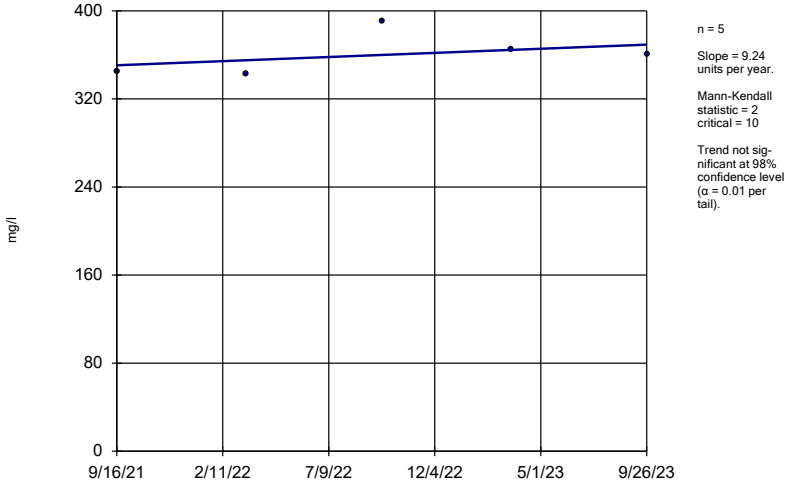


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20

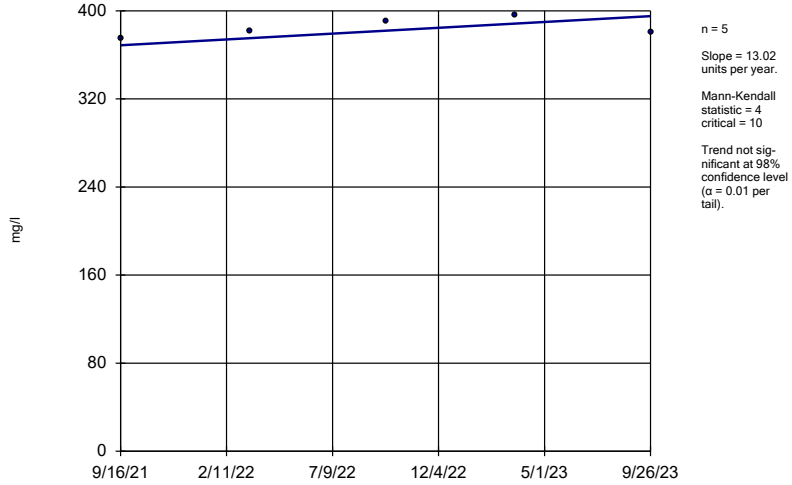


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21

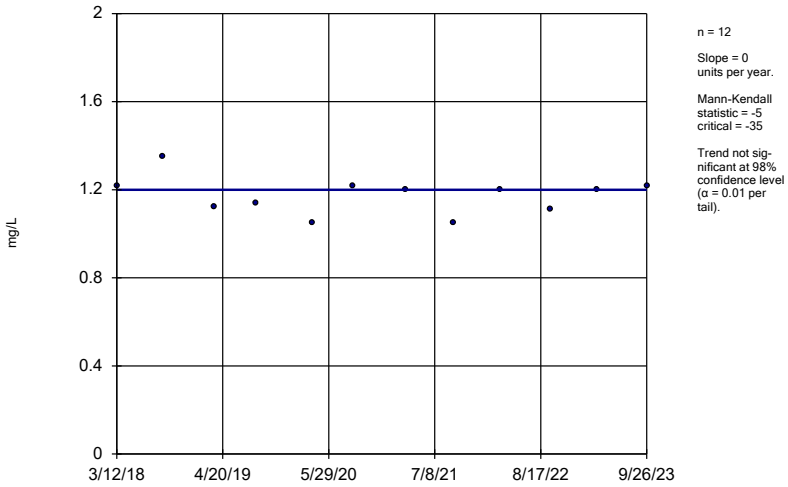


Constituent: Bicarbonate Alkalinity Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A

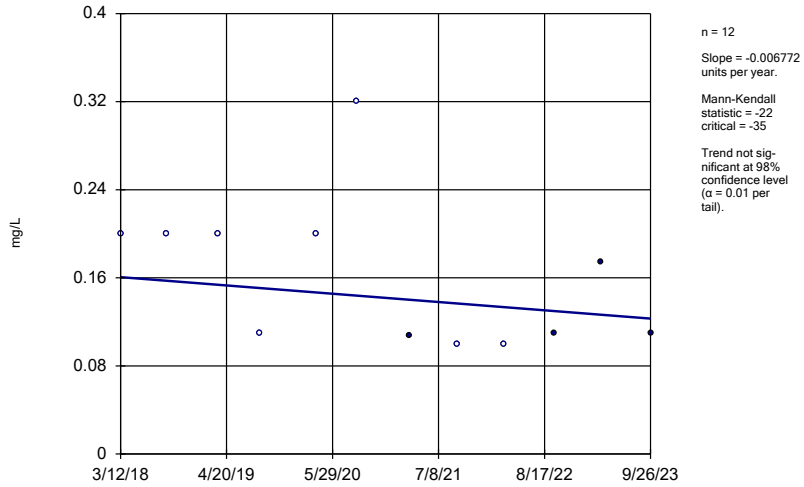


Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

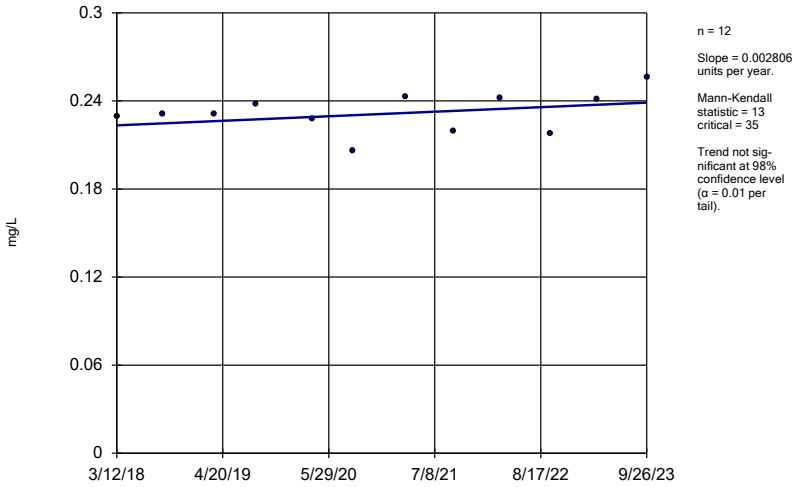


Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0.002806 units per year.

Mann-Kendall statistic = 13
critical = 35

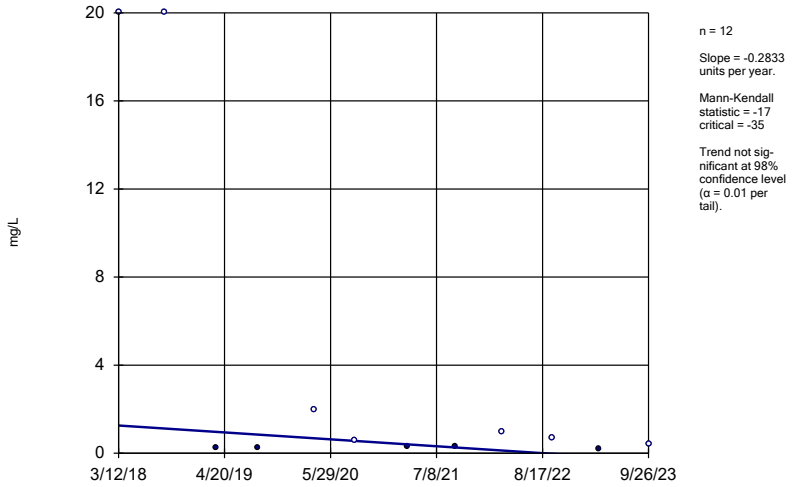
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.2833 units per year.

Mann-Kendall statistic = -17
critical = -35

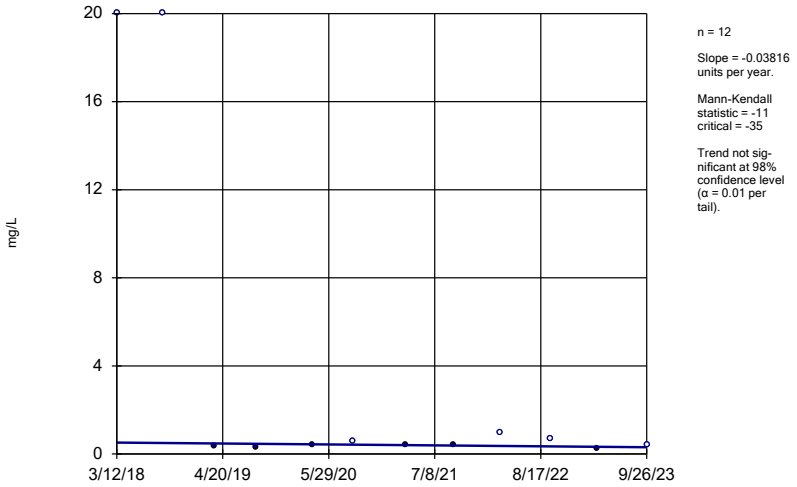
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.03816 units per year.

Mann-Kendall statistic = -11
critical = -35

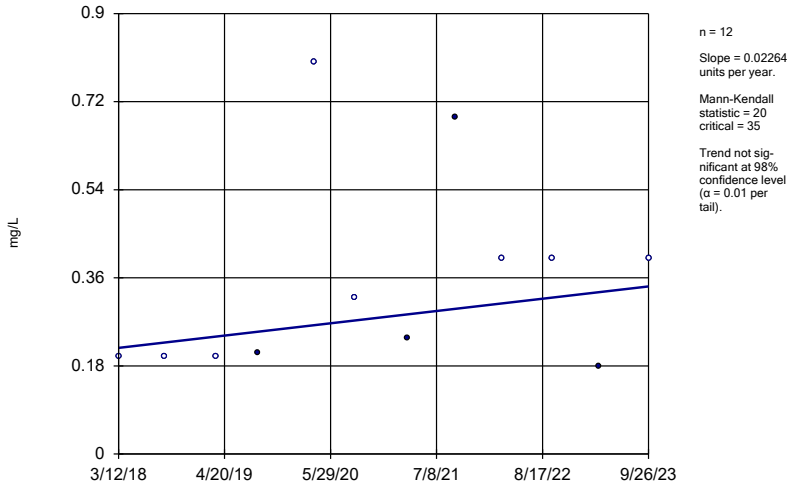
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.02264 units per year.

Mann-Kendall statistic = 20
critical = 35

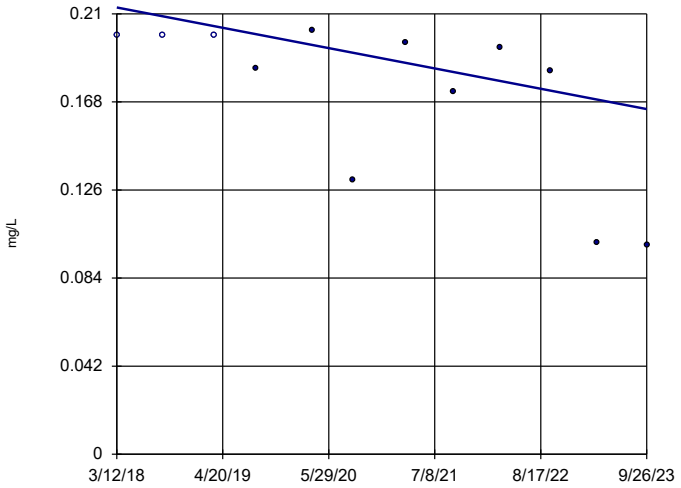
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = -0.008737 units per year.

Mann-Kendall statistic = -39
critical = -35

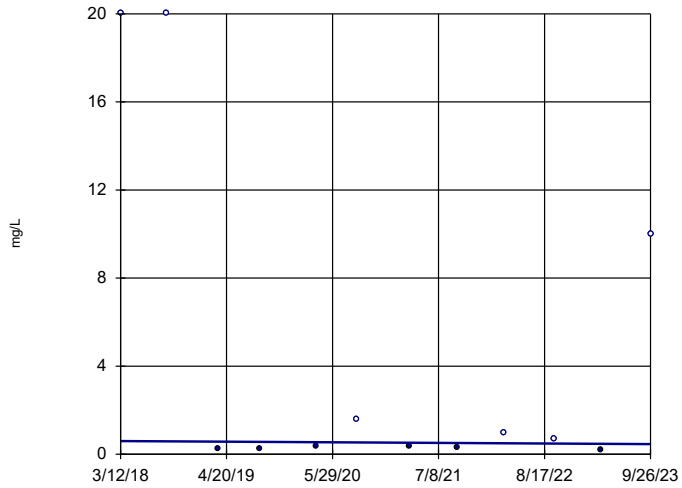
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.02368 units per year.

Mann-Kendall statistic = -9
critical = -35

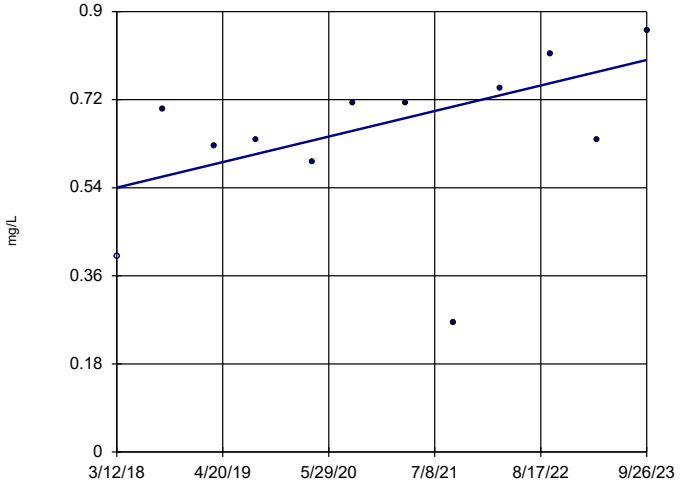
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = 0.04704 units per year.

Mann-Kendall statistic = 29
critical = 35

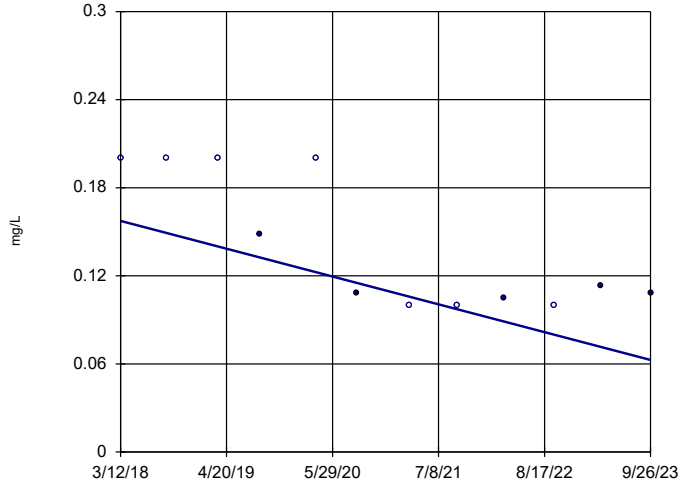
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = -0.01708 units per year.

Mann-Kendall statistic = -32
critical = -35

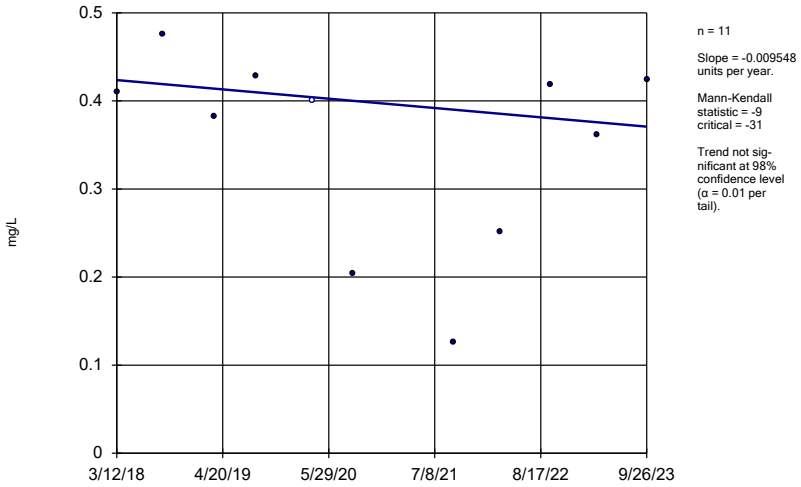
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.009548 units per year.

Mann-Kendall statistic = -9
critical = -31

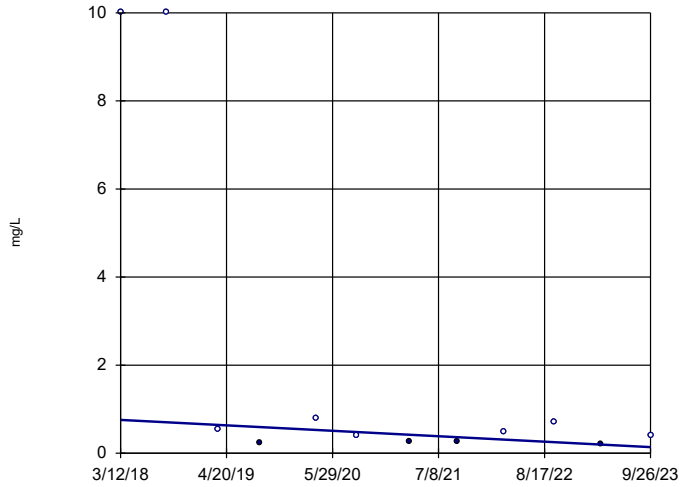
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.1114 units per year.

Mann-Kendall statistic = -24
critical = -35

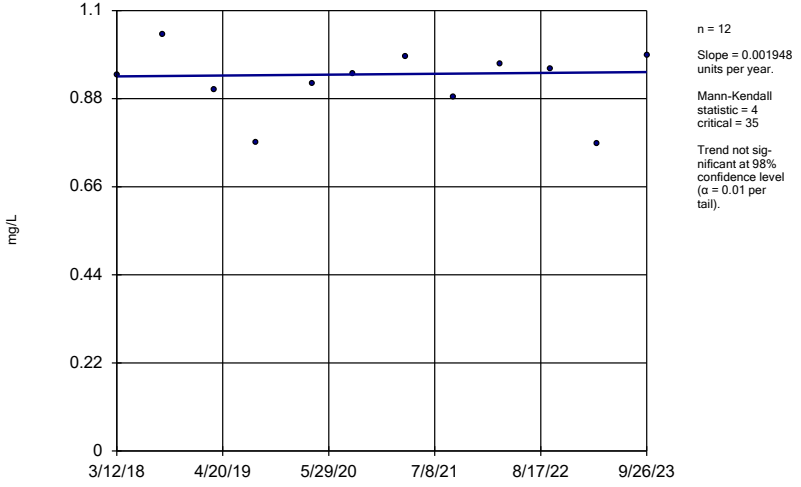
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.001948 units per year.

Mann-Kendall statistic = 4
critical = 35

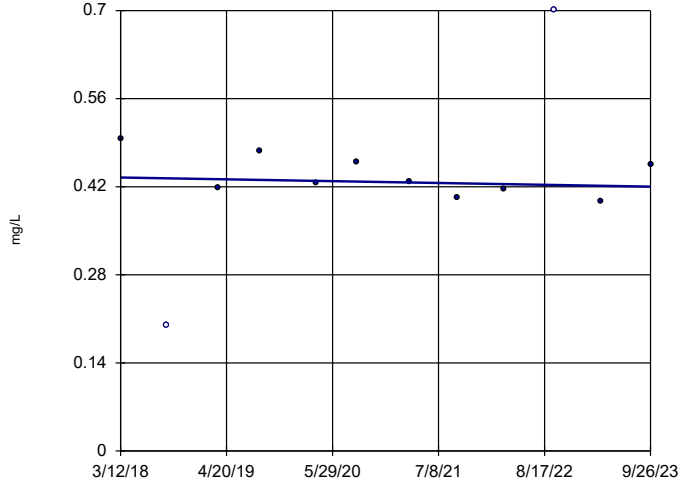
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = -0.002643 units per year.

Mann-Kendall statistic = -4
critical = -35

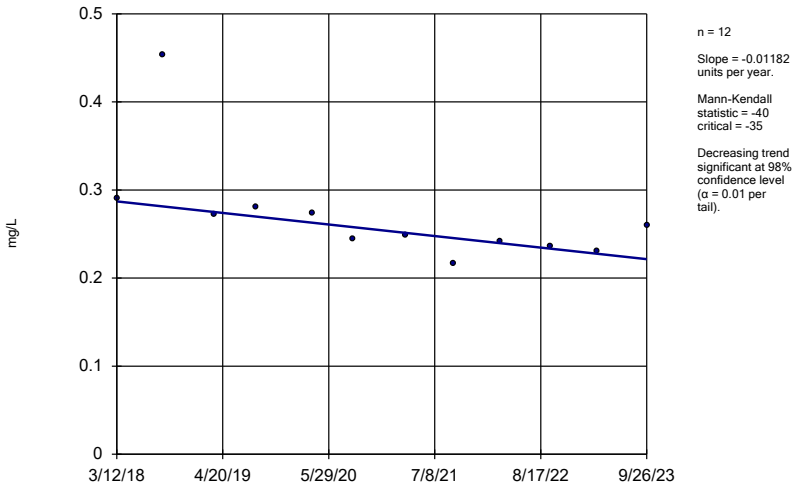
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.01182 units per year.

Mann-Kendall statistic = -40
critical = -35

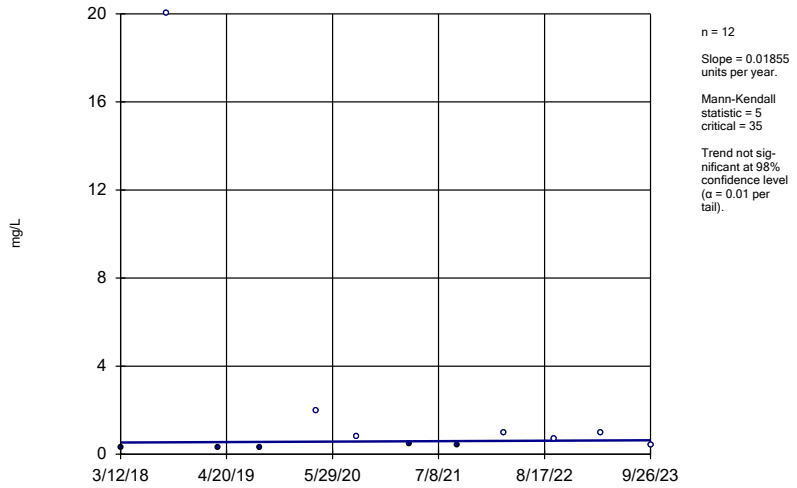
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.01855 units per year.

Mann-Kendall statistic = 5
critical = 35

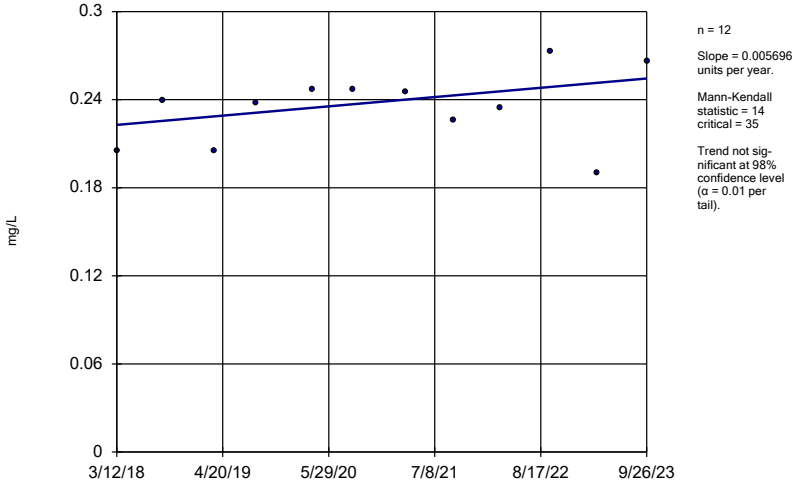
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.005696 units per year.

Mann-Kendall statistic = 14
critical = 35

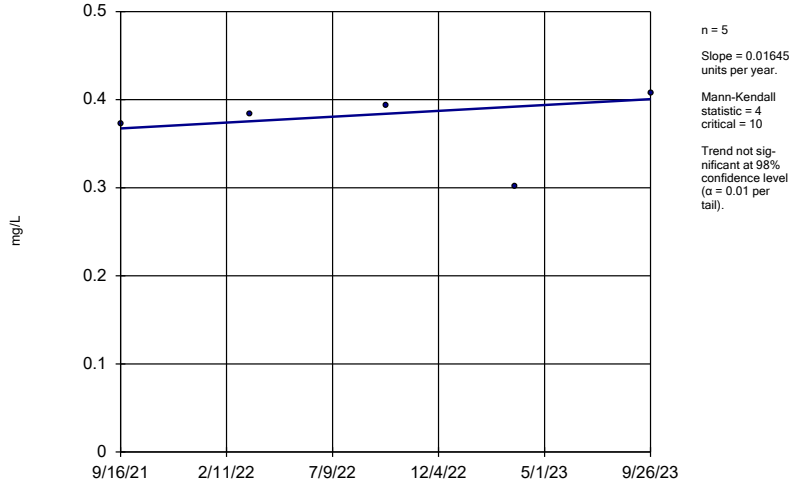
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20



n = 5

Slope = 0.01645 units per year.

Mann-Kendall statistic = 4
critical = 10

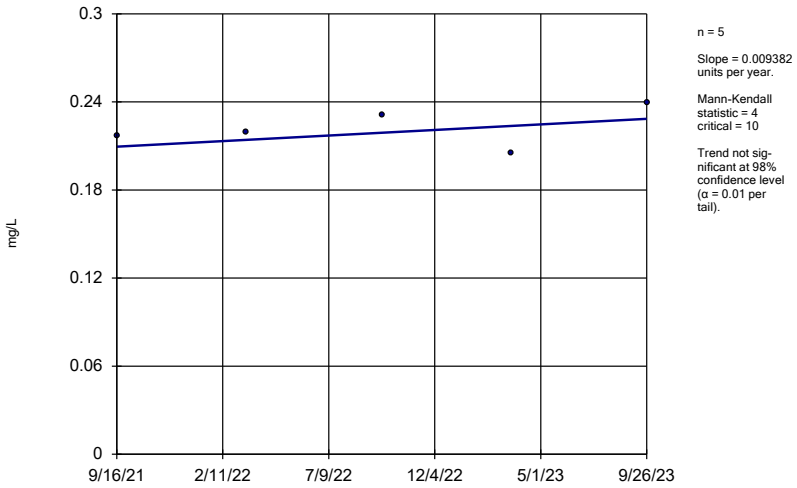
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21

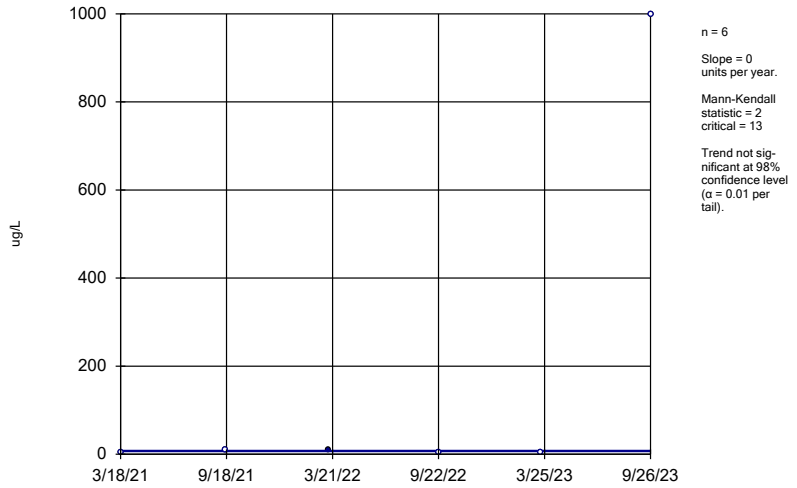


Constituent: Boron Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

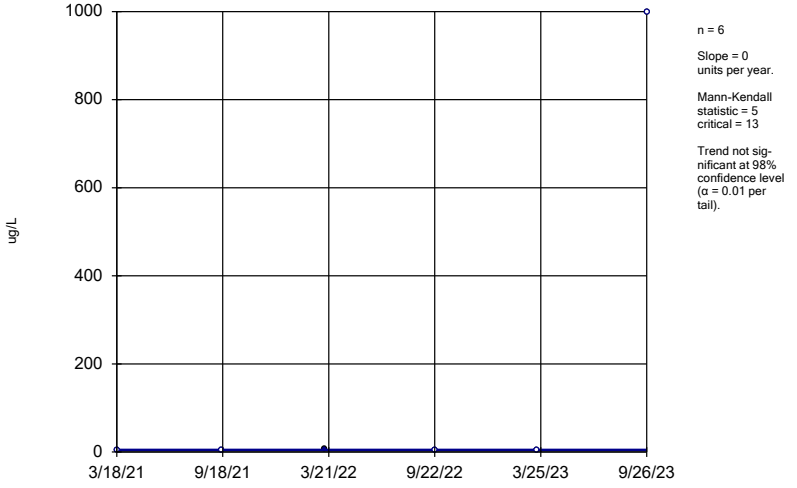


Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

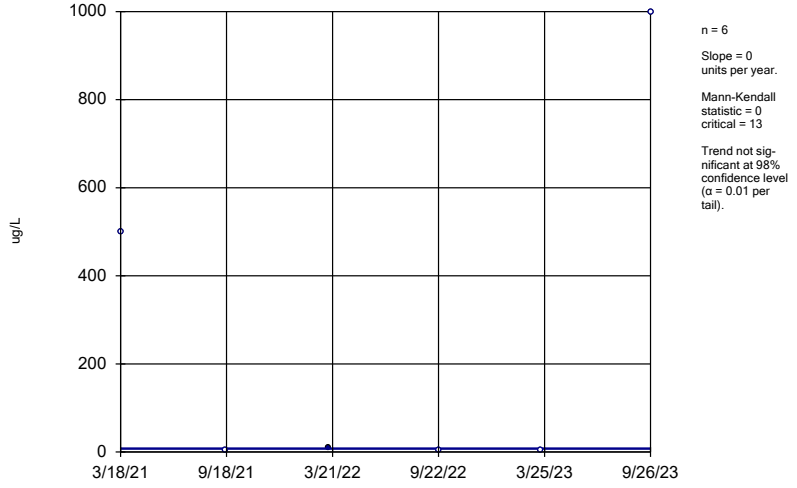


Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

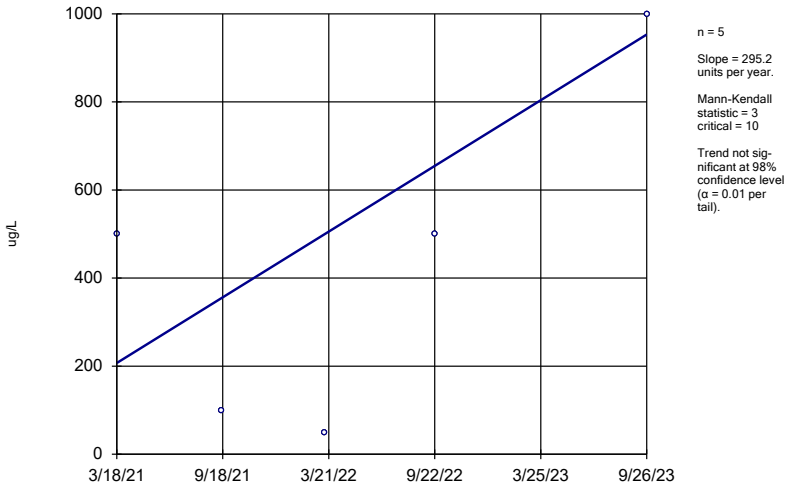


Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4

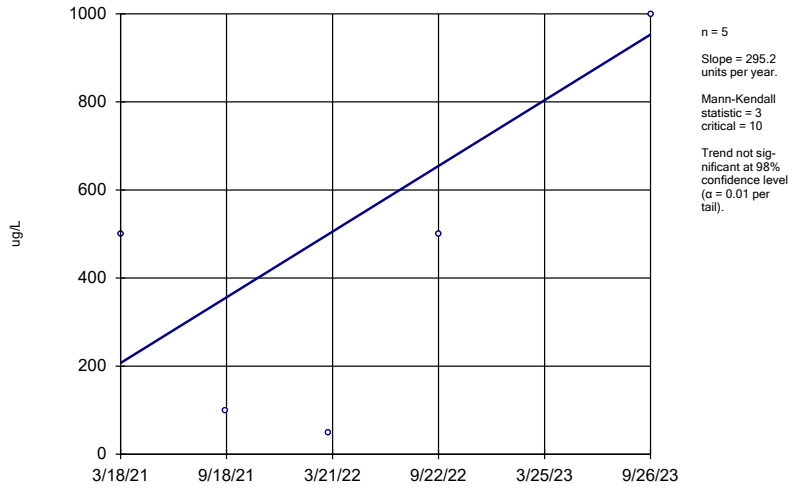


Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L

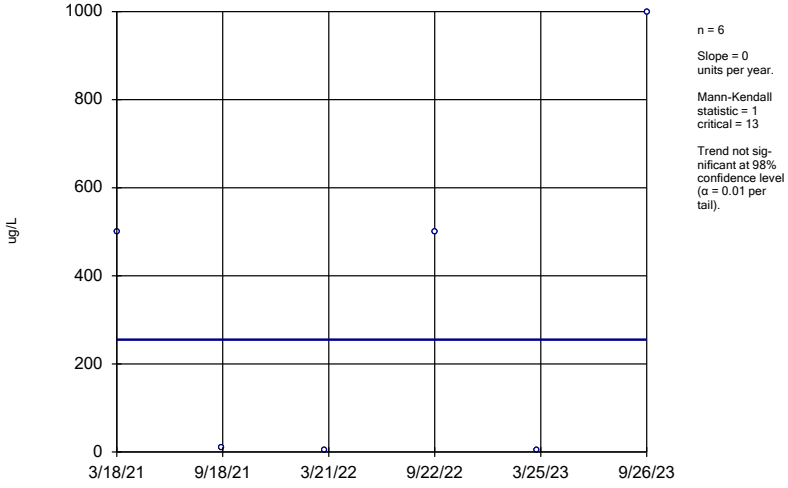


Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

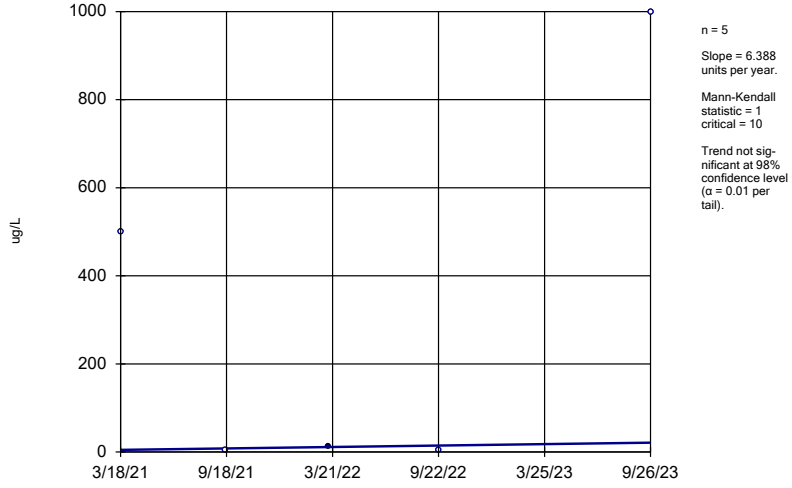


Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)

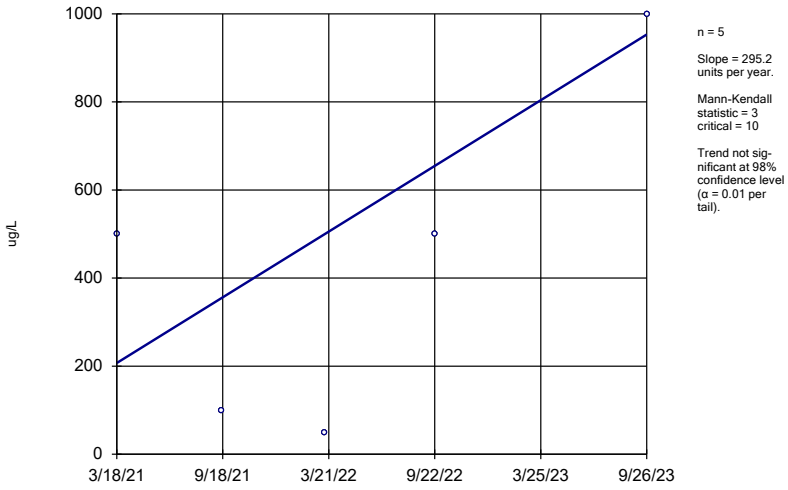


Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 5

Slope = 295.2 units per year.

Mann-Kendall statistic = 3
critical = 10

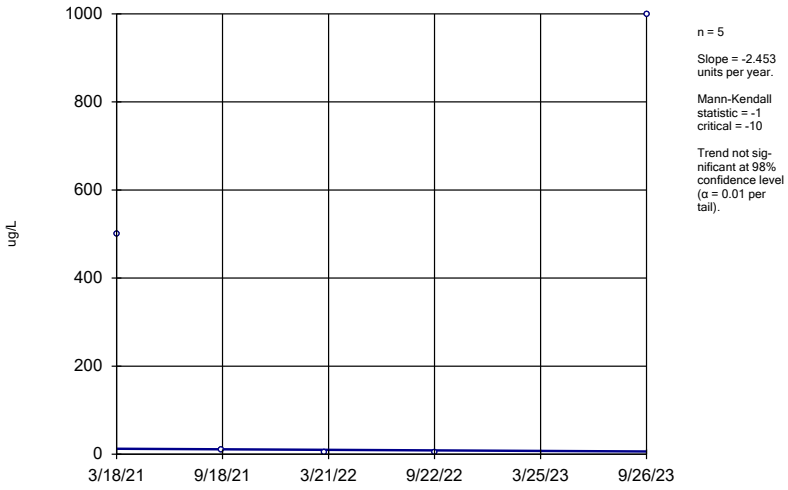
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 5

Slope = -2.453 units per year.

Mann-Kendall statistic = -1
critical = -10

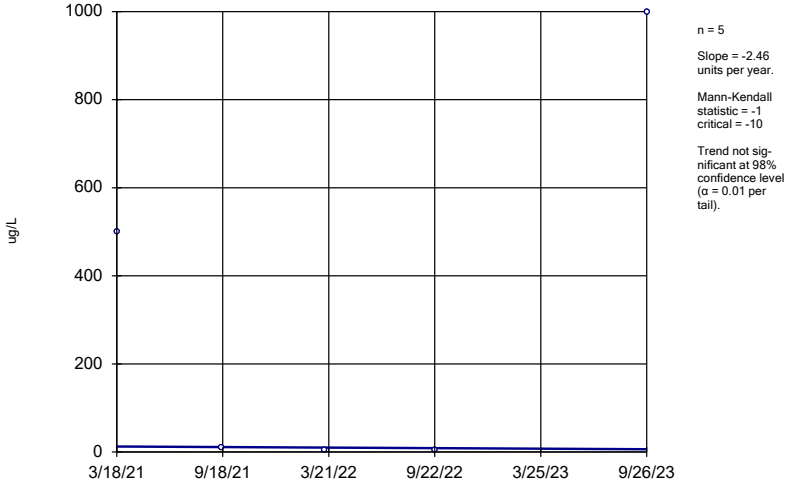
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 5

Slope = -2.46 units per year.

Mann-Kendall statistic = -1
critical = -10

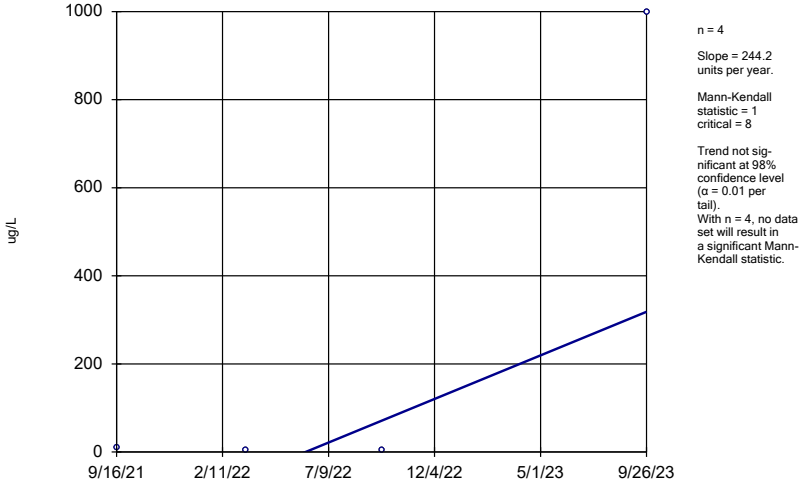
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 4

Slope = 244.2 units per year.

Mann-Kendall statistic = 1
critical = 8

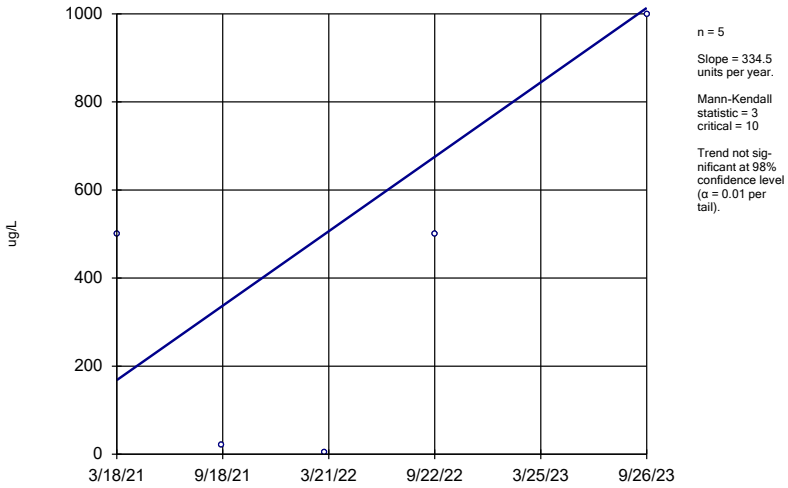
Trend not significant at 98% confidence level (α = 0.01 per tail).
With n = 4, no data set will result in a significant Mann-Kendall statistic.

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 5

Slope = 334.5 units per year.

Mann-Kendall statistic = 3
critical = 10

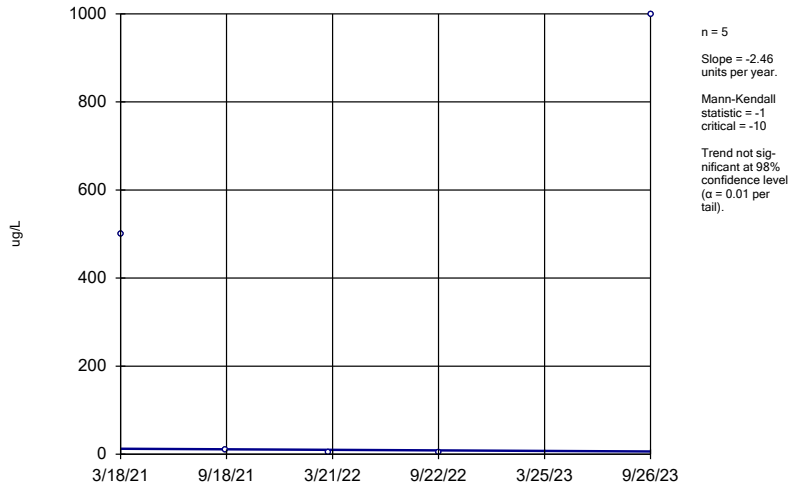
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 5

Slope = -2.46 units per year.

Mann-Kendall statistic = -1
critical = -10

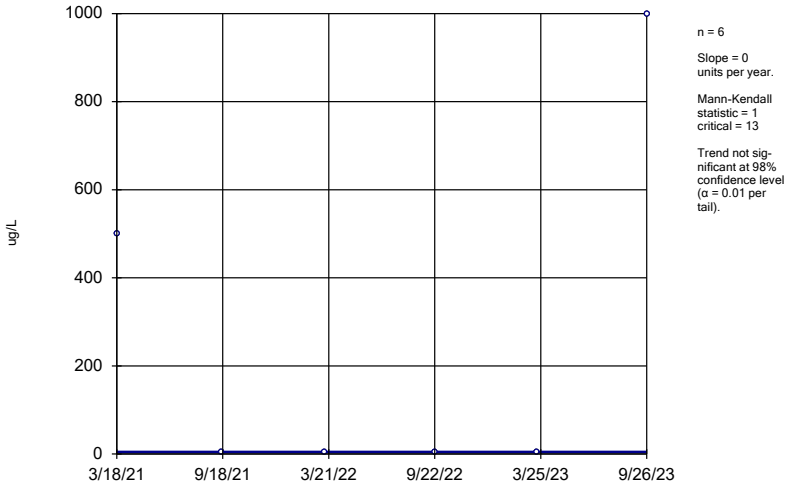
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 6

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 13

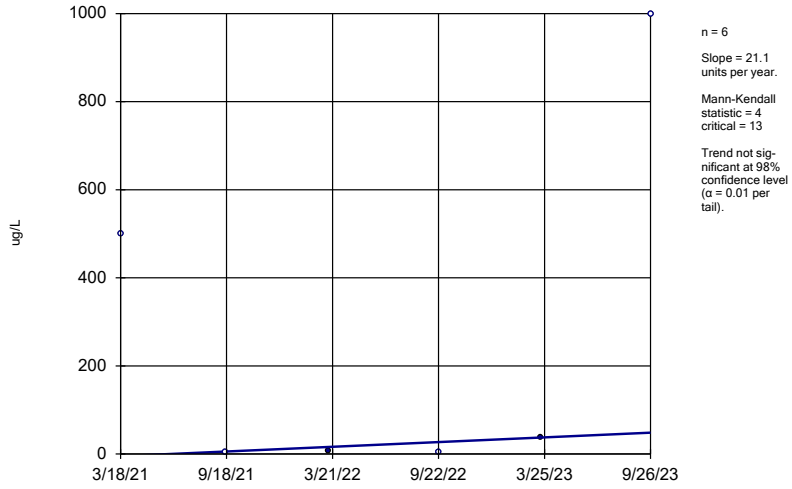
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 6

Slope = 21.1 units per year.

Mann-Kendall statistic = 4
critical = 13

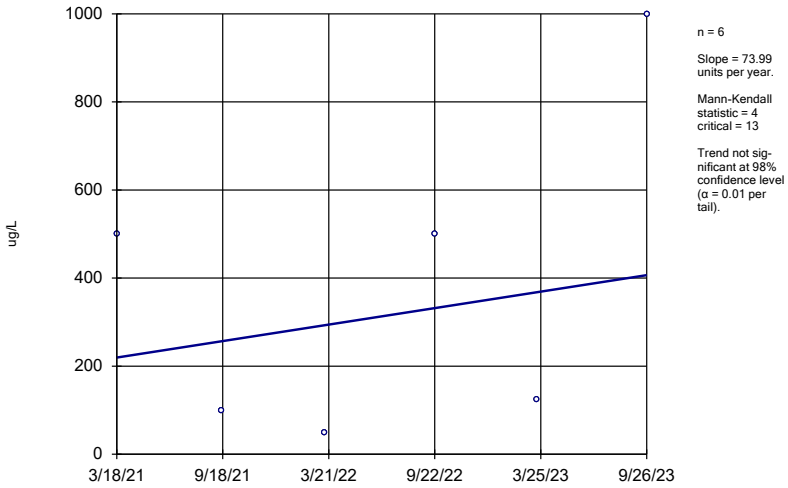
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 6

Slope = 73.99 units per year.

Mann-Kendall statistic = 4
critical = 13

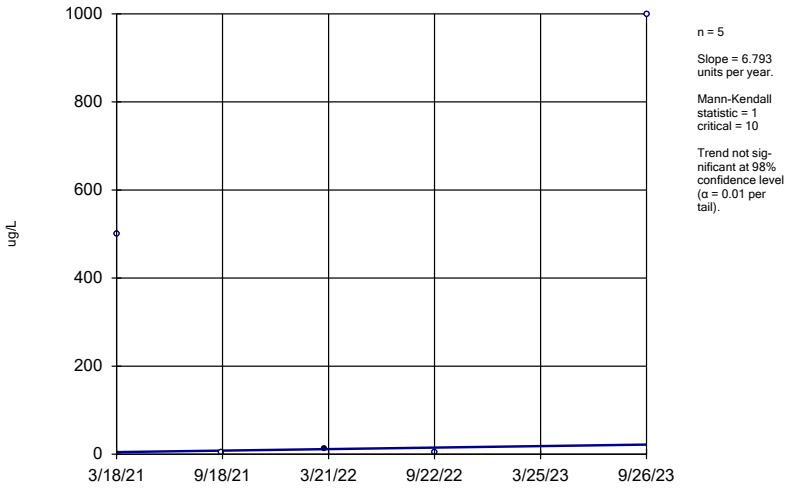
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 5

Slope = 6.793 units per year.

Mann-Kendall statistic = 1
critical = 10

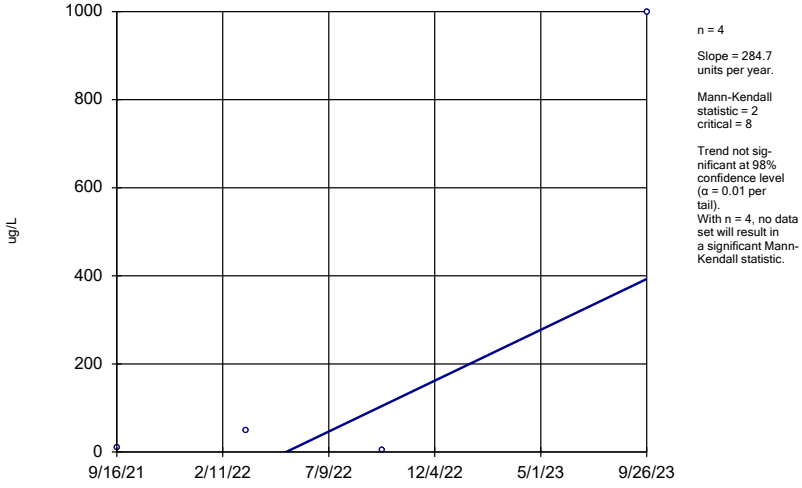
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 4

Slope = 284.7 units per year.

Mann-Kendall statistic = 2
critical = 8

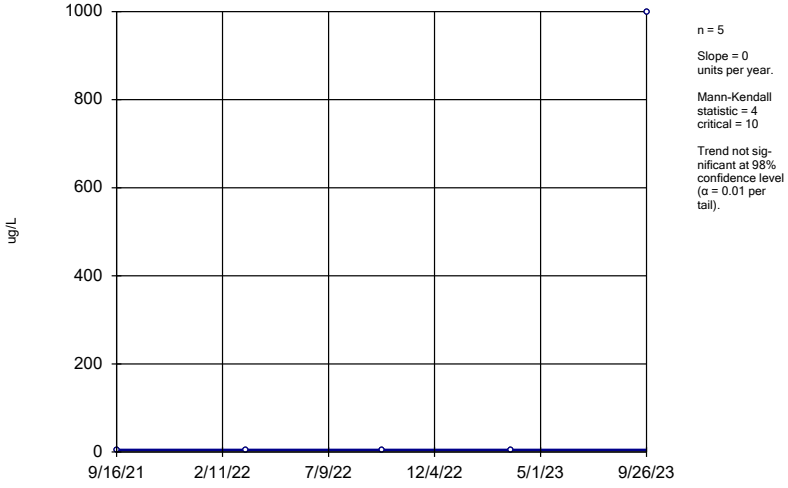
Trend not significant at 98% confidence level (α = 0.01 per tail).
With n = 4, no data set will result in a significant Mann-Kendall statistic.

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = 4
critical = 10

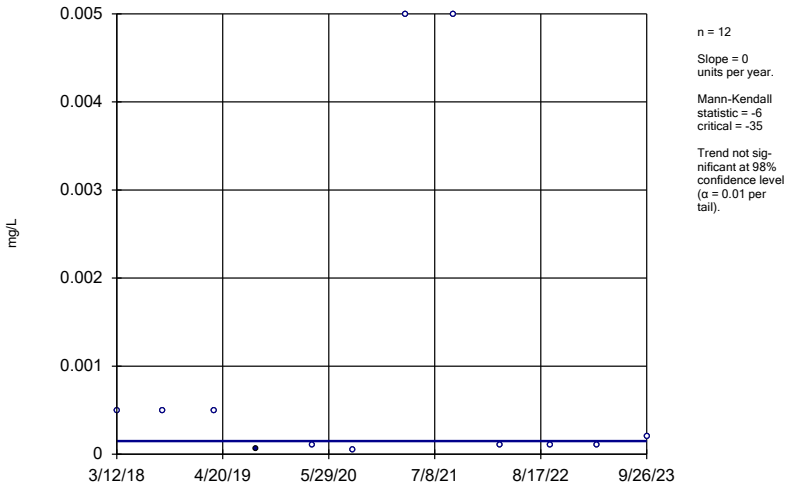
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Bromate Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -6
critical = -35

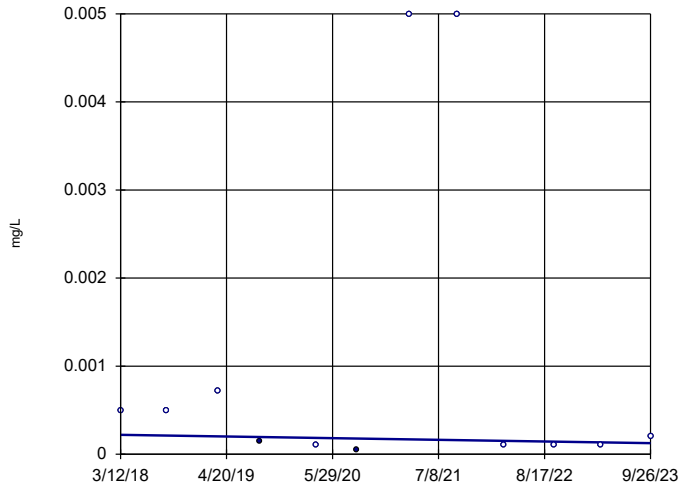
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -0.00001722 units per year.

Mann-Kendall statistic = -12
critical = -35

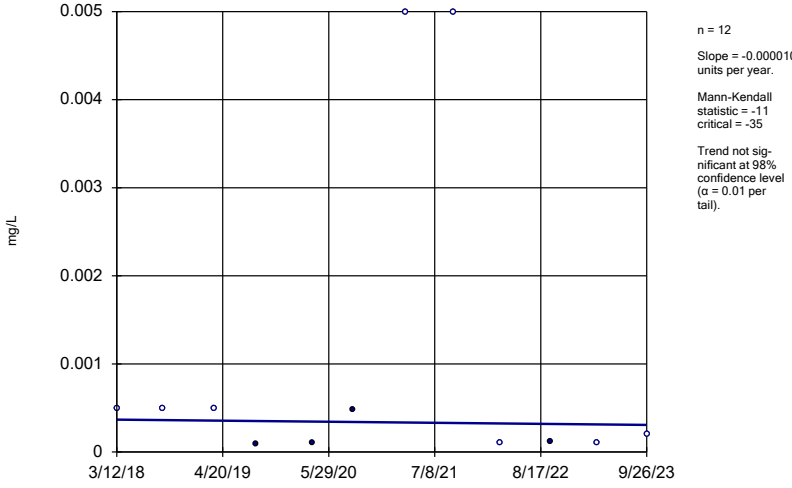
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = -0.00001086 units per year.

Mann-Kendall statistic = -11
critical = -35

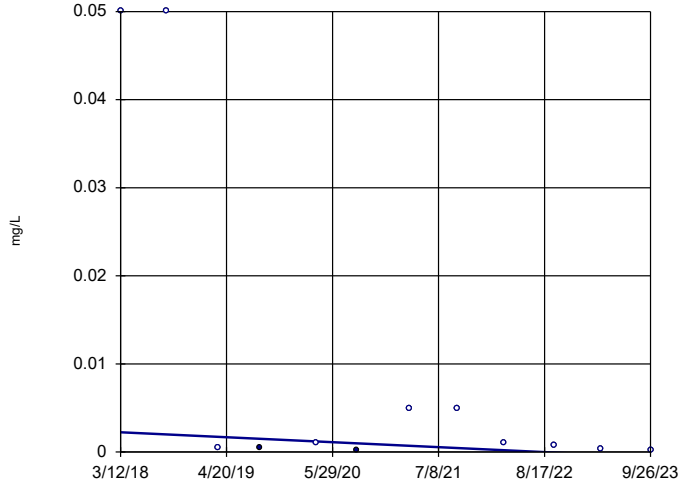
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.0005087 units per year.

Mann-Kendall statistic = -27
critical = -35

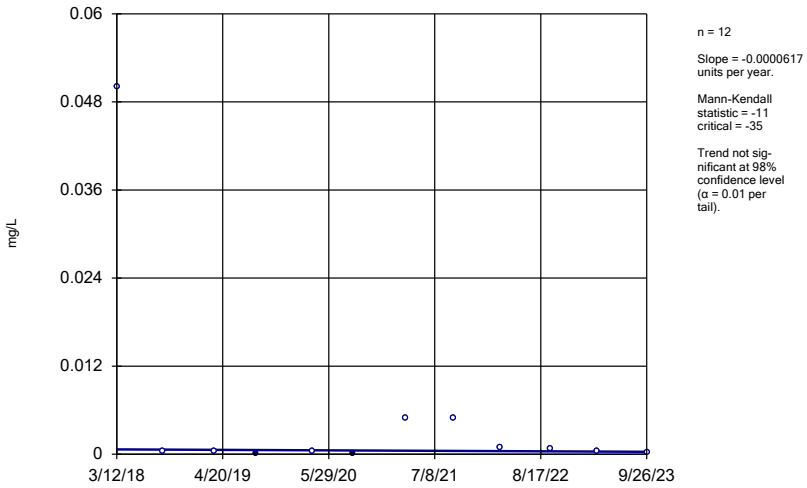
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L

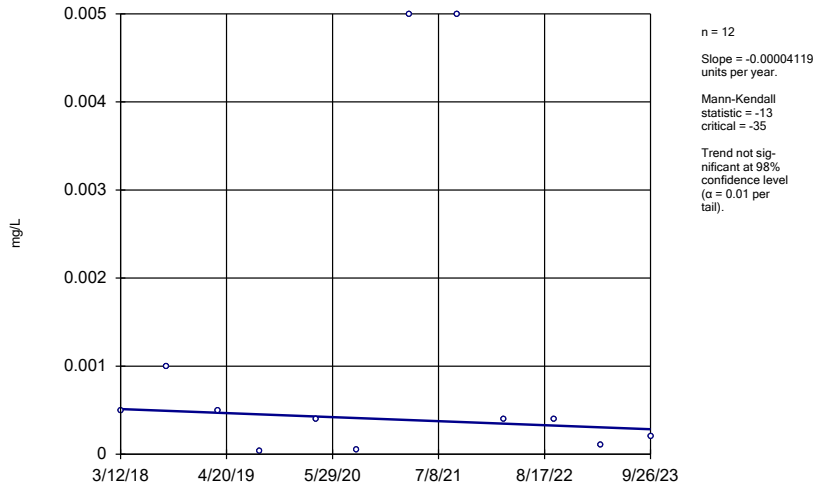


Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

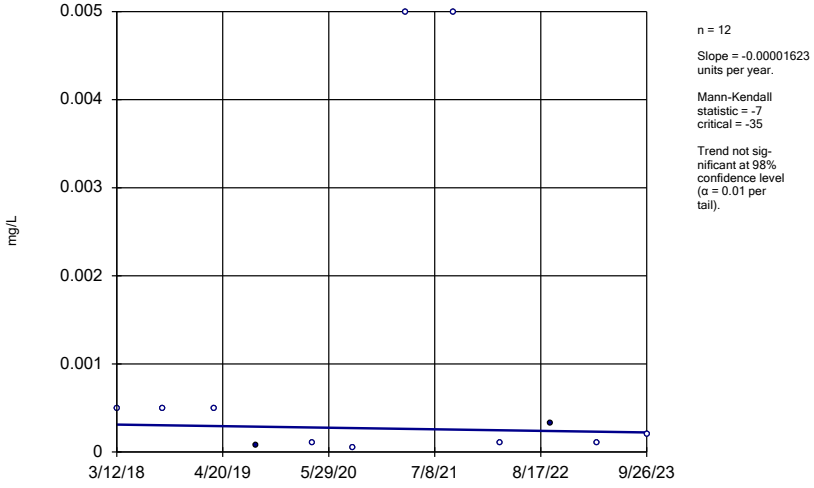


Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)

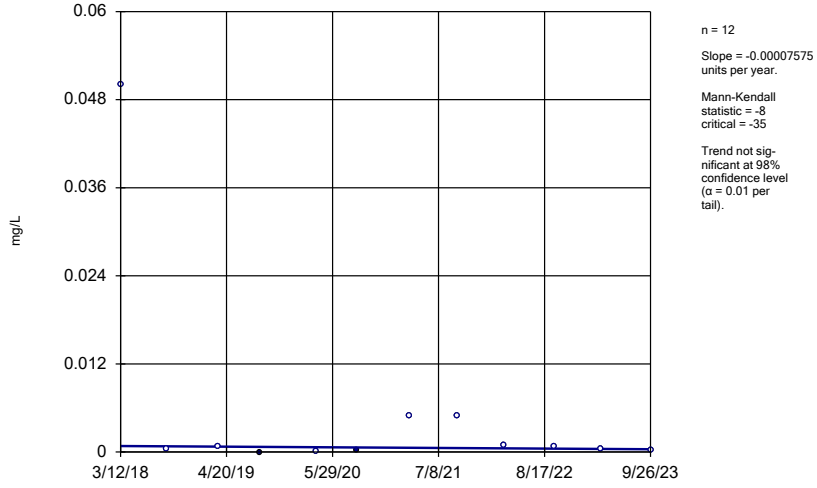


Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11

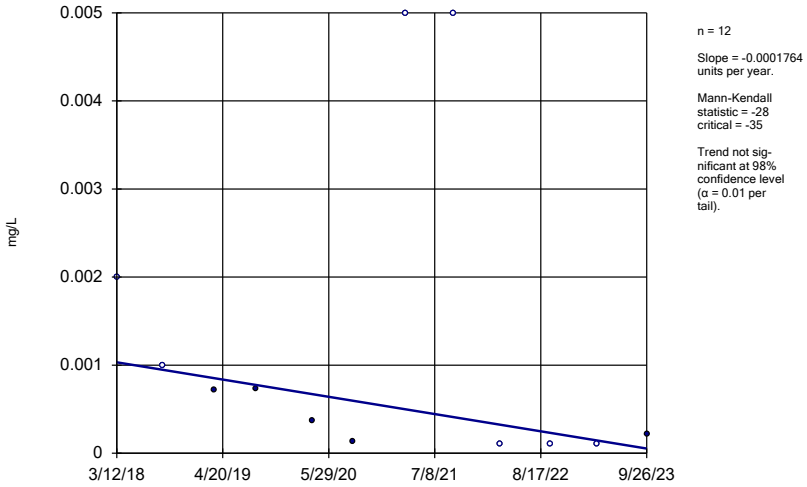


Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.0001764 units per year.

Mann-Kendall statistic = -28
critical = -35

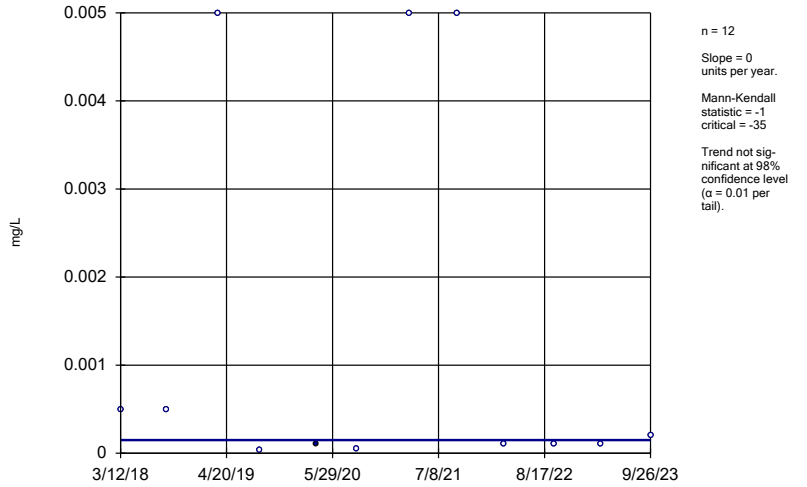
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

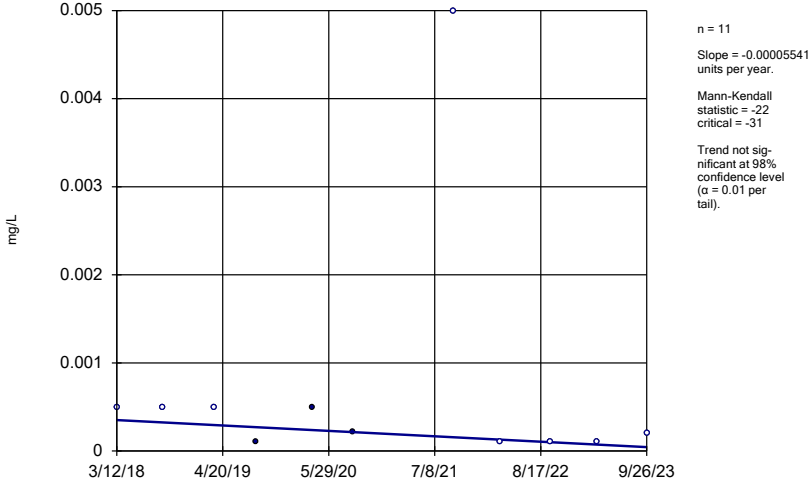
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.00005541 units per year.

Mann-Kendall statistic = -22
critical = -31

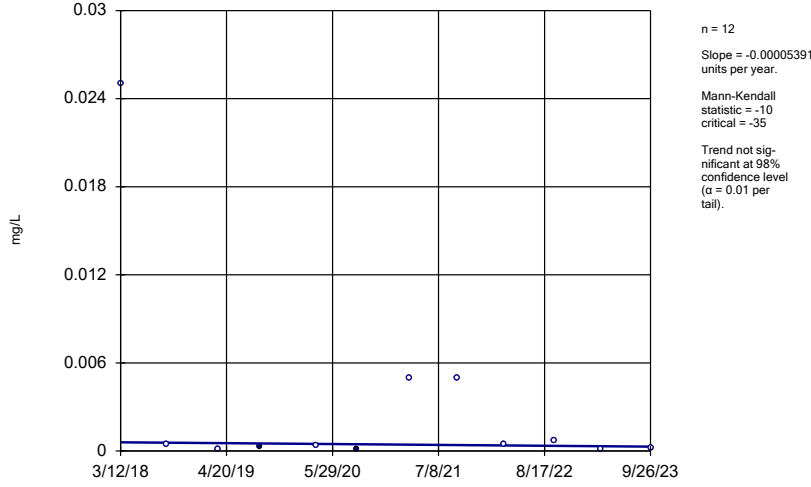
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.00005391 units per year.

Mann-Kendall statistic = -10
critical = -35

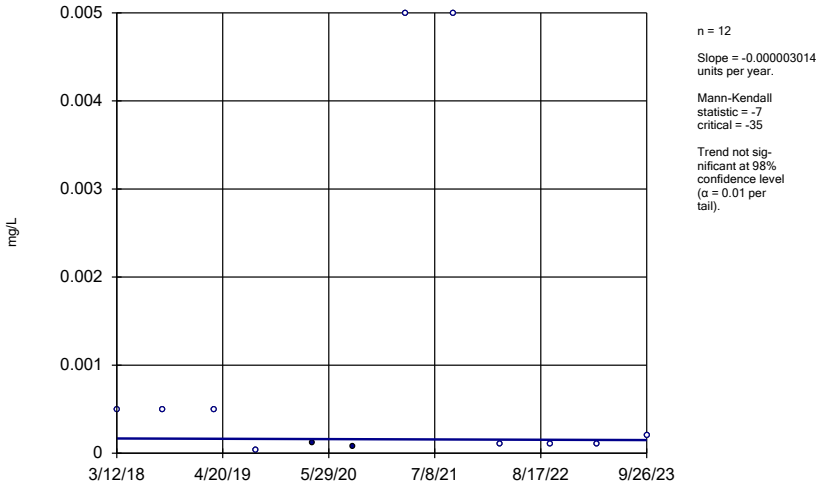
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = -0.000003014 units per year.

Mann-Kendall statistic = -7
critical = -35

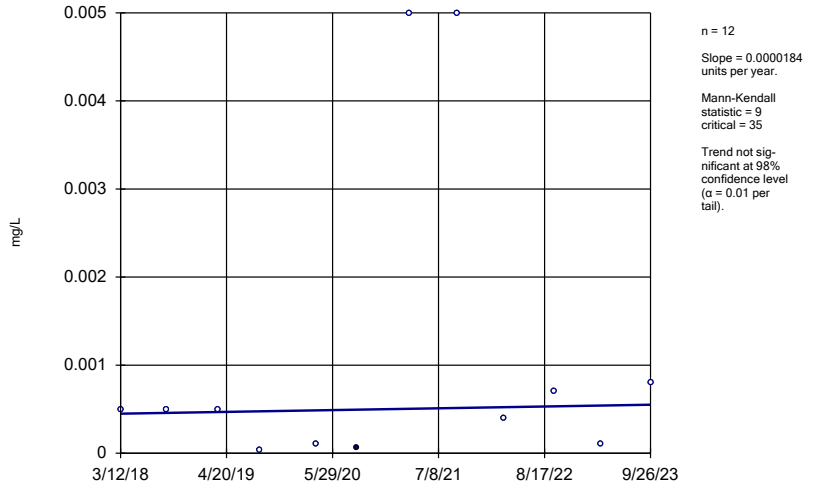
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0000184 units per year.

Mann-Kendall statistic = 9
critical = 35

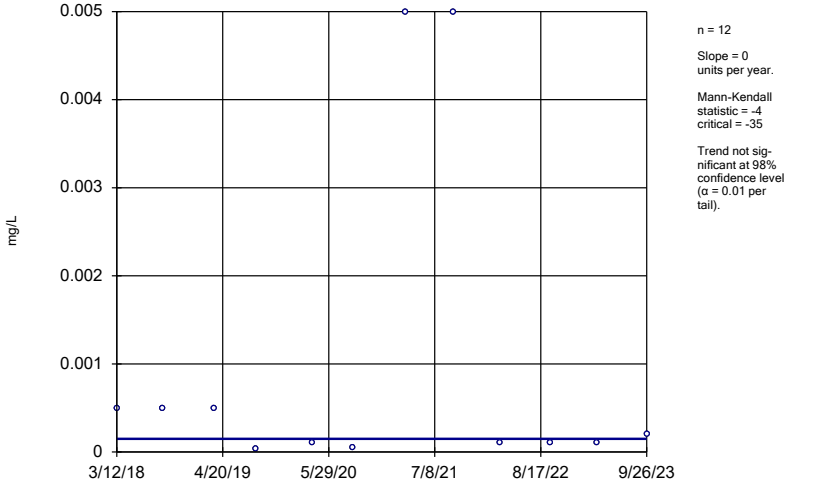
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -35

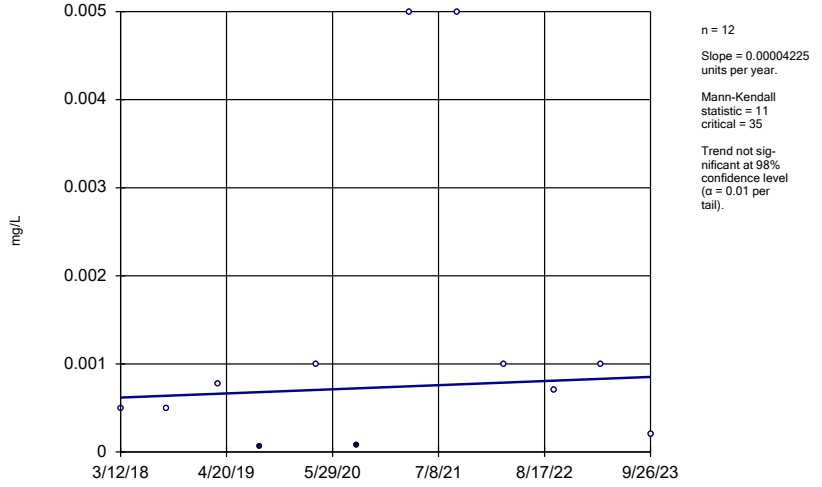
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.00004225 units per year.

Mann-Kendall statistic = 11
critical = 35

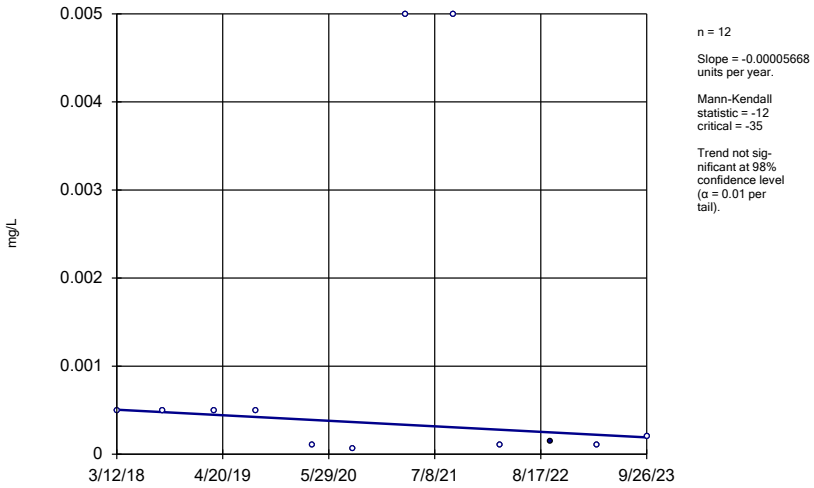
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = -0.00005668 units per year.

Mann-Kendall statistic = -12
critical = -35

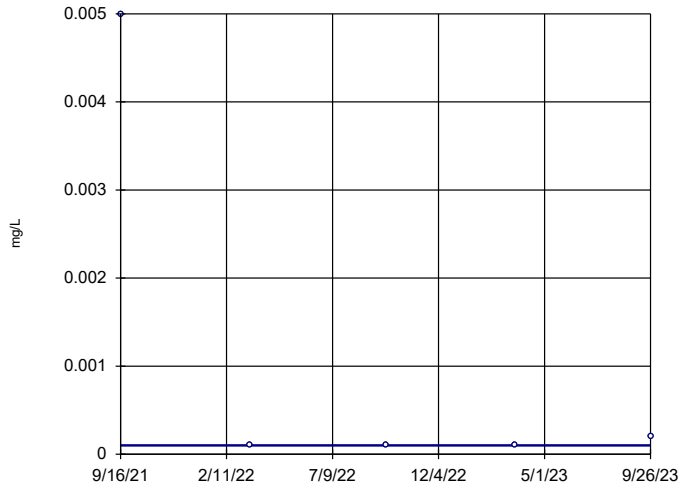
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -10

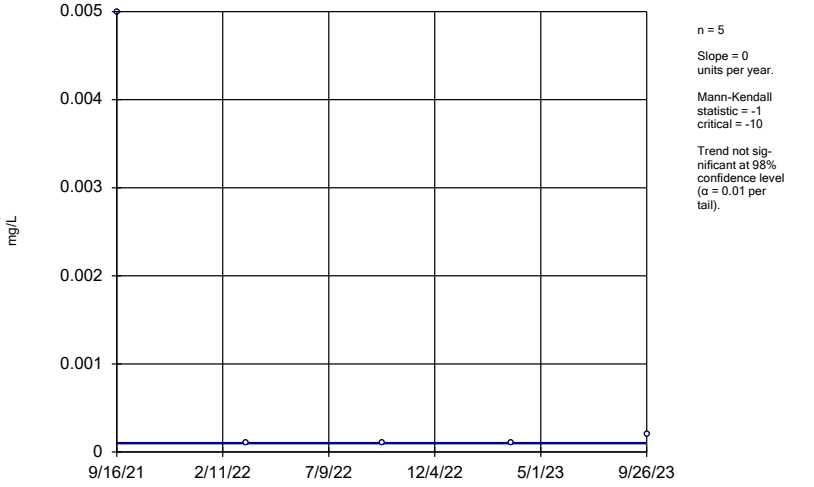
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -10

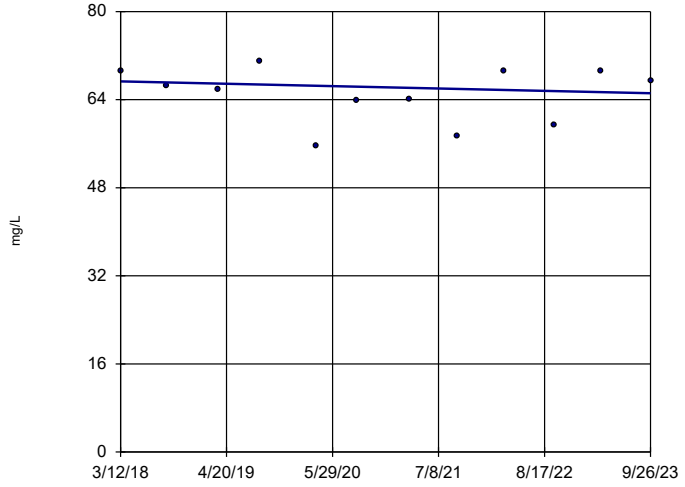
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cadmium Total Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.3918 units per year.

Mann-Kendall statistic = -3
critical = -35

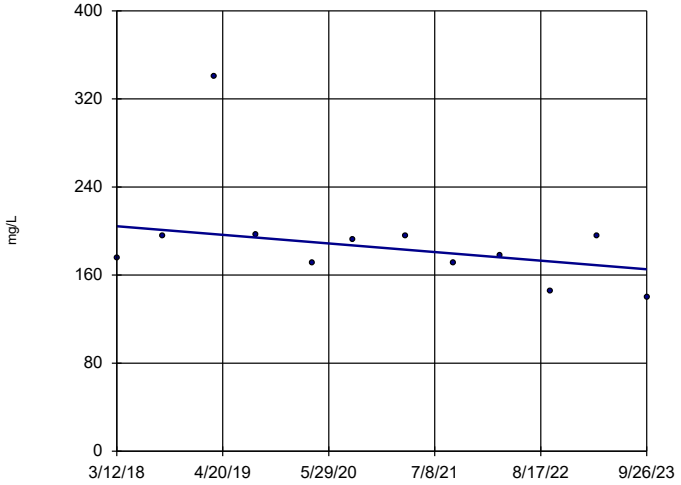
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -7.033 units per year.

Mann-Kendall statistic = -24
critical = -35

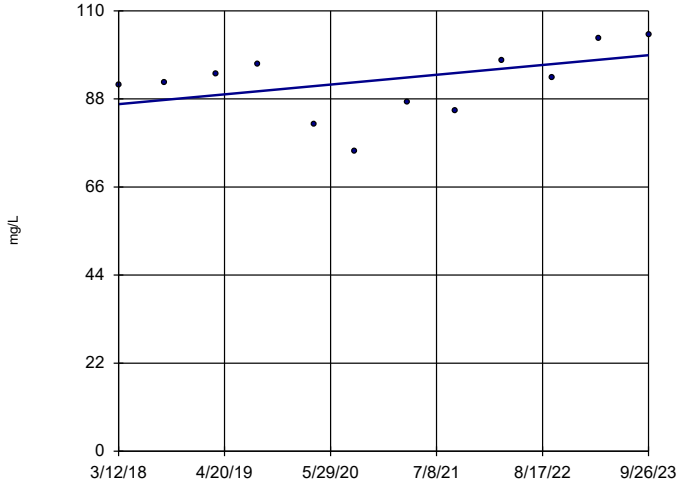
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-3L



n = 12

Slope = 2.203 units per year.

Mann-Kendall statistic = 24
critical = 35

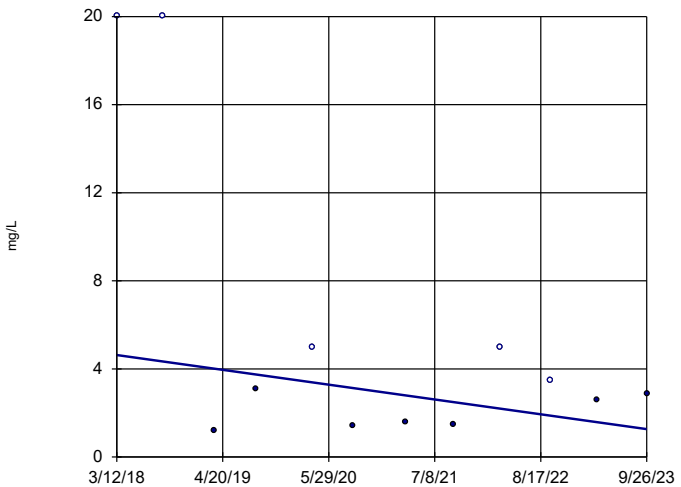
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.6073 units per year.

Mann-Kendall statistic = -10
critical = -35

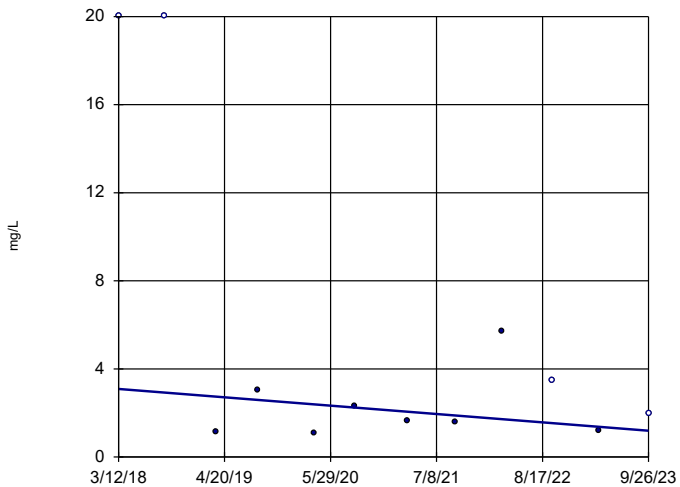
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.3428 units per year.

Mann-Kendall statistic = -13
critical = -35

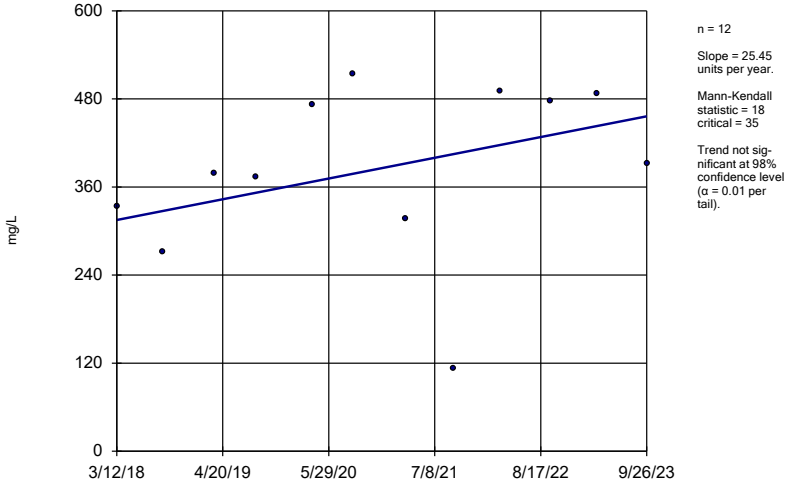
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:50 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-5



n = 12

Slope = 25.45 units per year.

Mann-Kendall statistic = 18 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

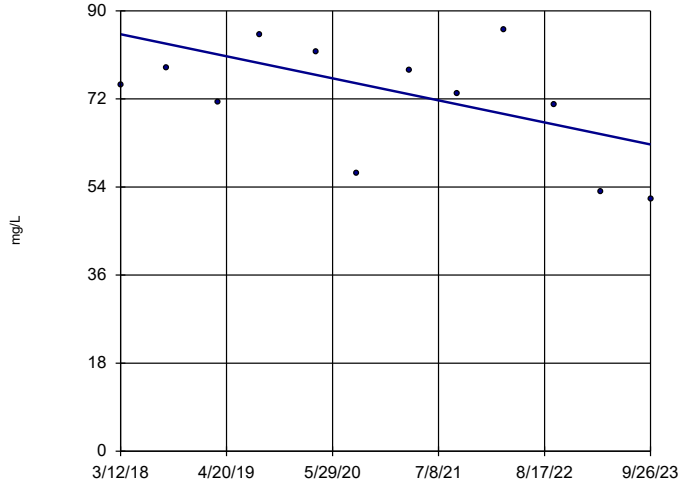
Constituent: Calcium Analysis Run 11/22/2023 4:50 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = -4.062 units per year.

Mann-Kendall statistic = -24 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

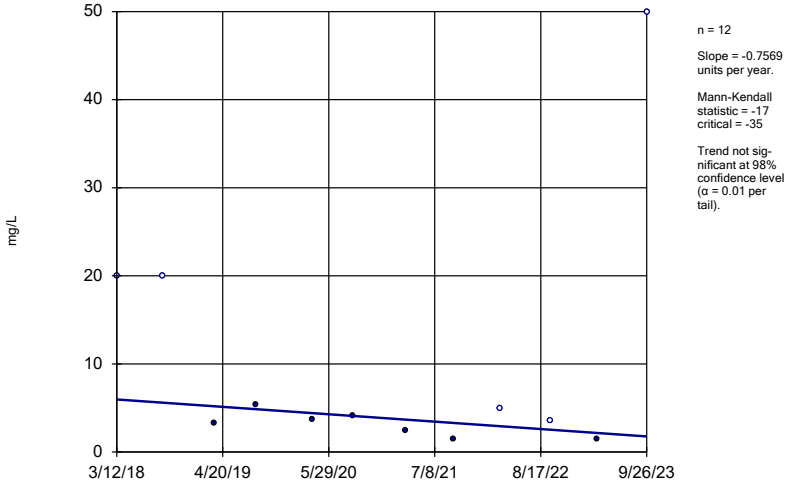
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.7569 units per year.

Mann-Kendall statistic = -17 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

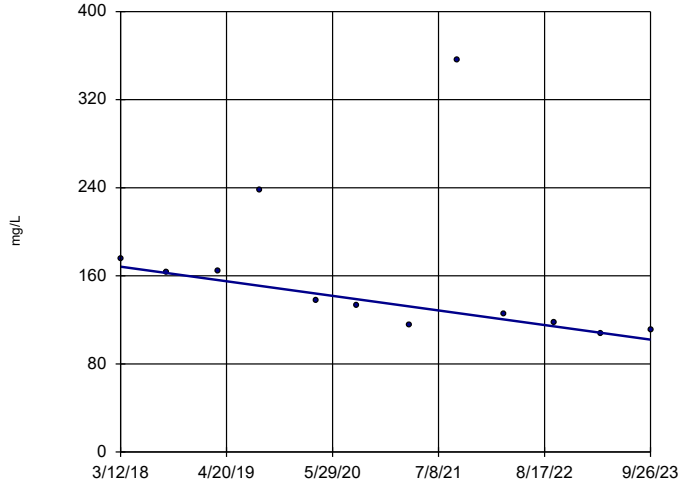
Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = -11.95 units per year.

Mann-Kendall statistic = -38 critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

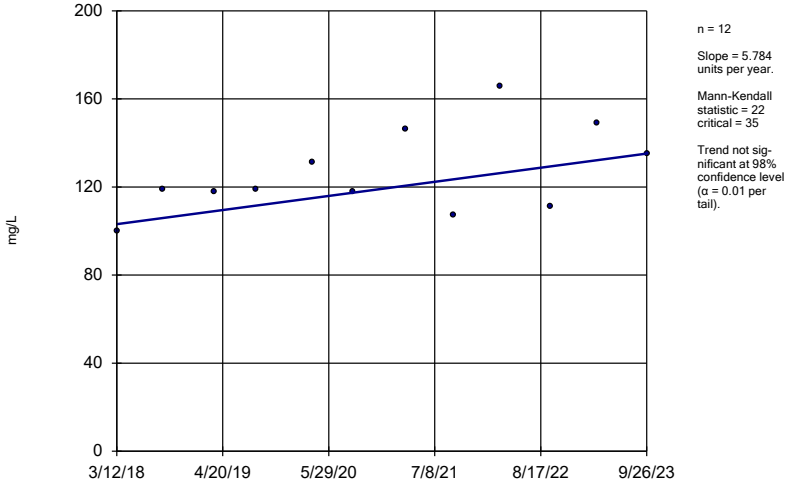
Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-2A



n = 12

Slope = 5.784 units per year.

Mann-Kendall statistic = 22
critical = 35

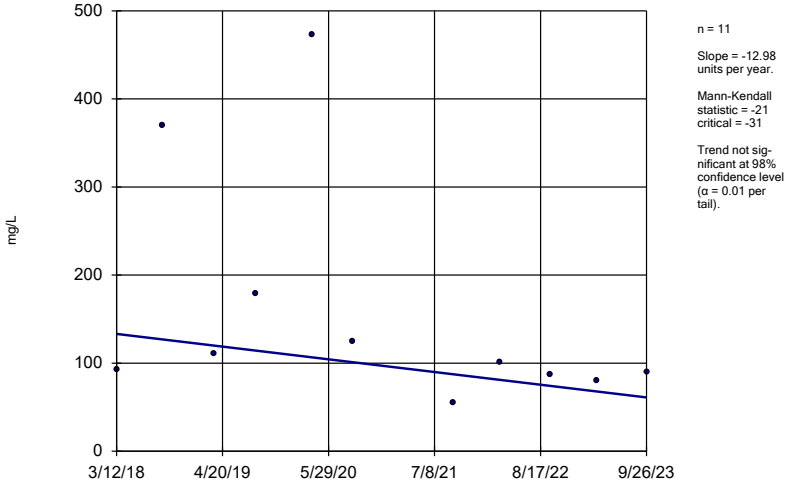
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -12.98 units per year.

Mann-Kendall statistic = -21
critical = -31

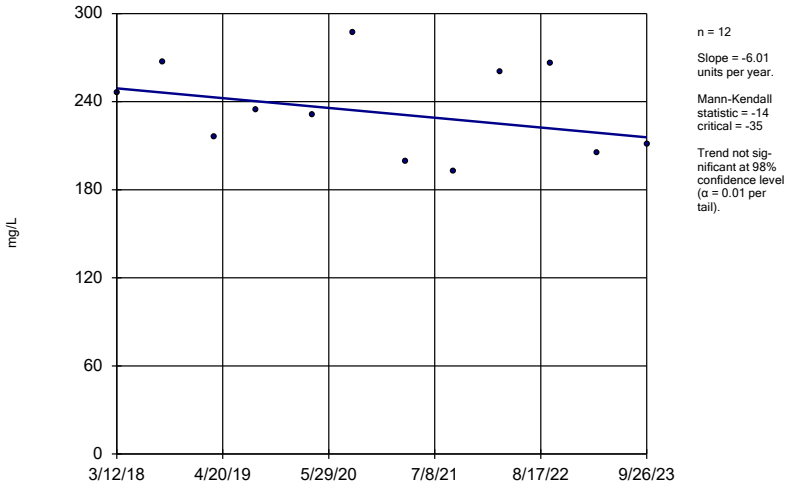
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-14



n = 12

Slope = -6.01 units per year.

Mann-Kendall statistic = -14
critical = -35

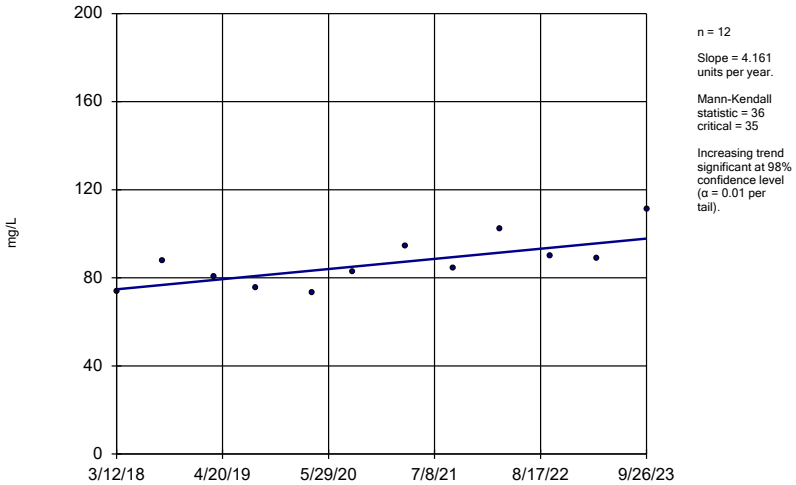
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 4.161 units per year.

Mann-Kendall statistic = 36
critical = 35

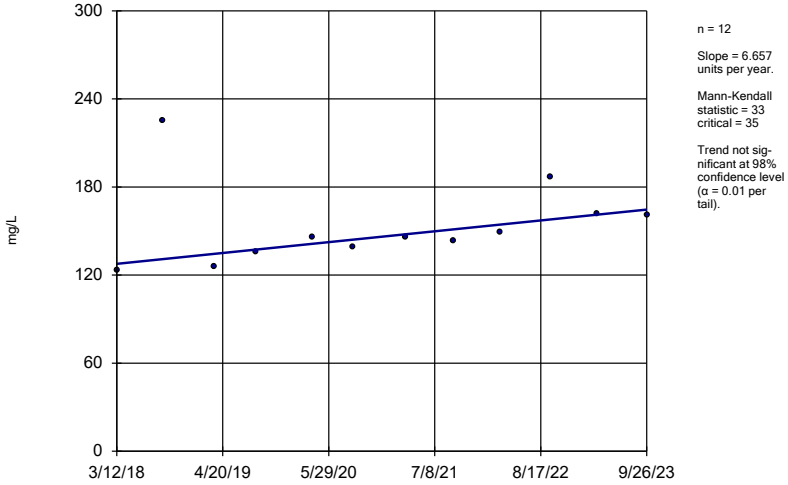
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16

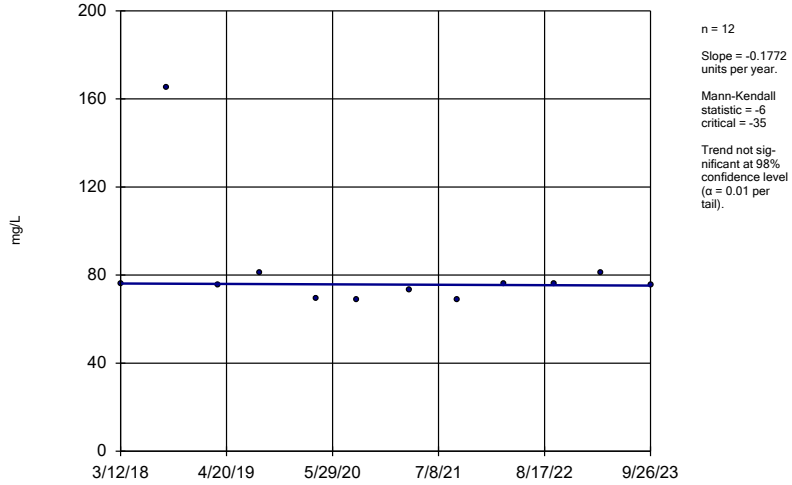


Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16L

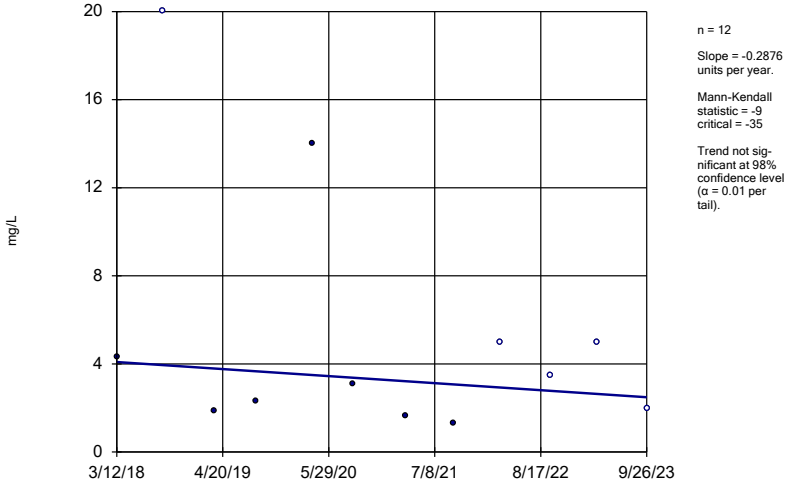


Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18

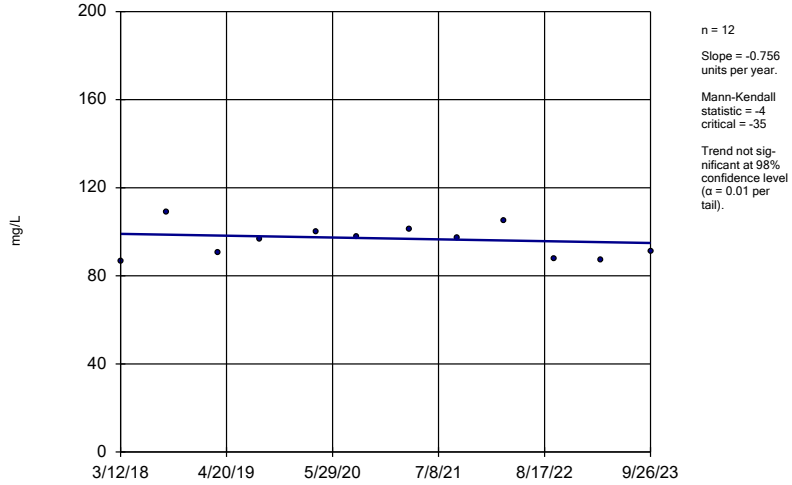


Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19

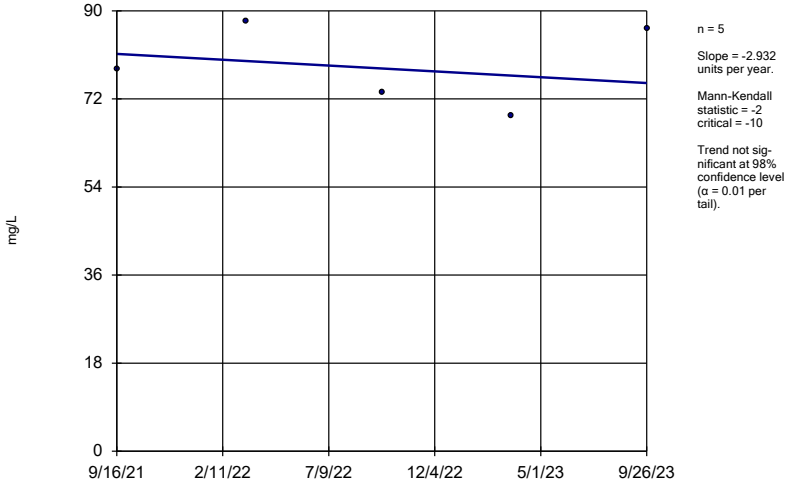


Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-20

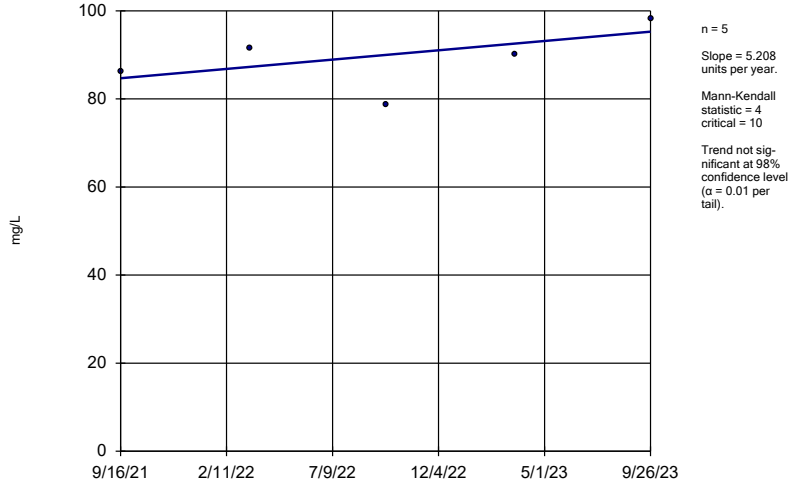


Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21

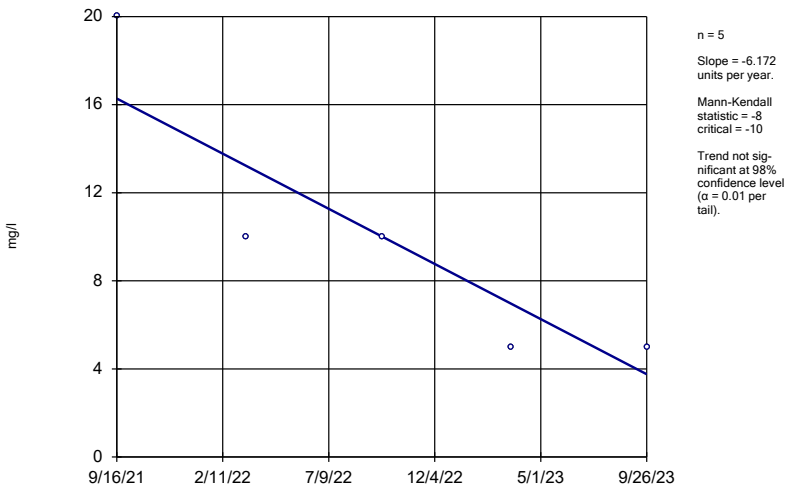


Constituent: Calcium Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

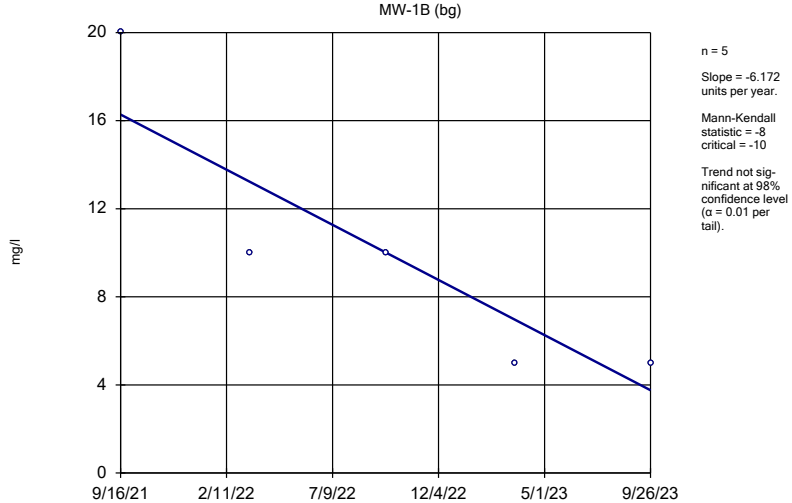


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

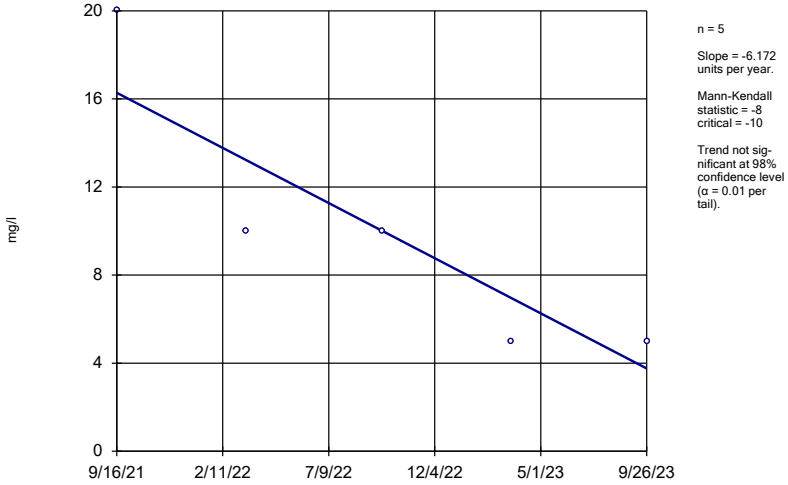


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

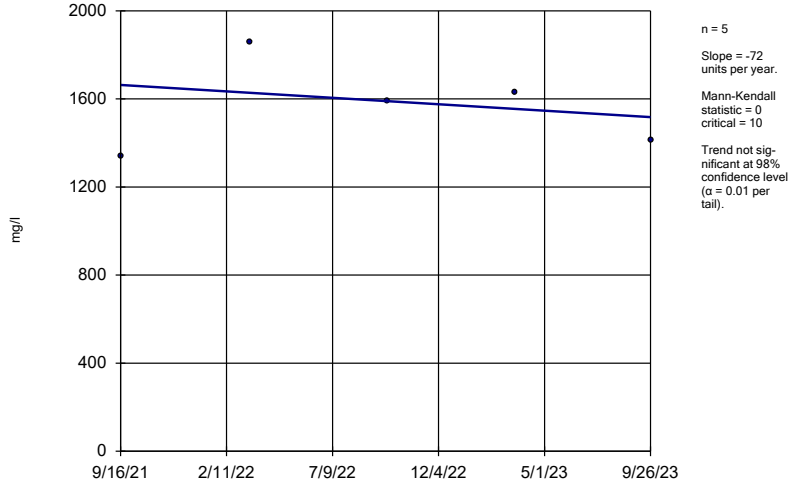


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4

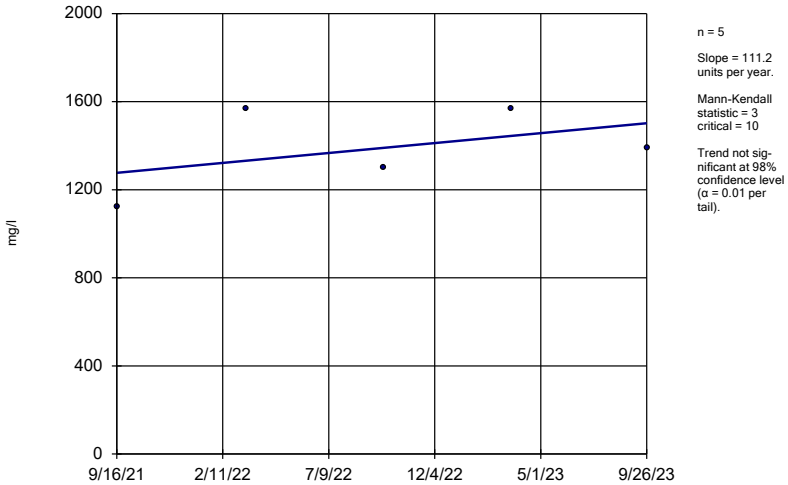


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4L

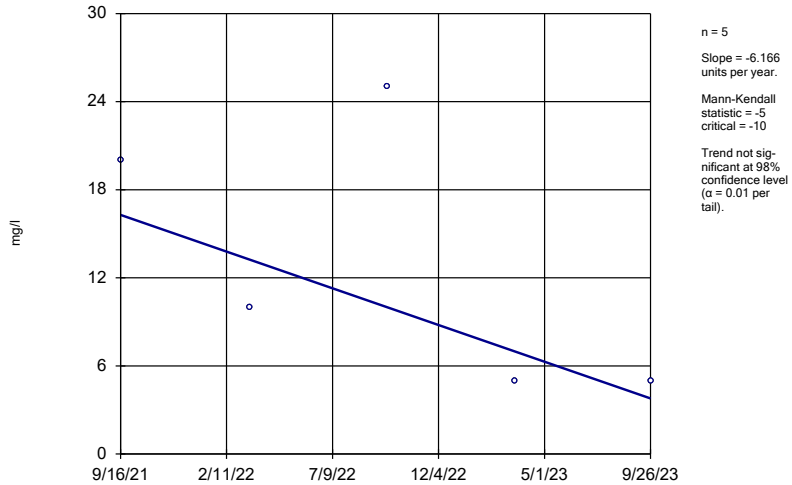


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

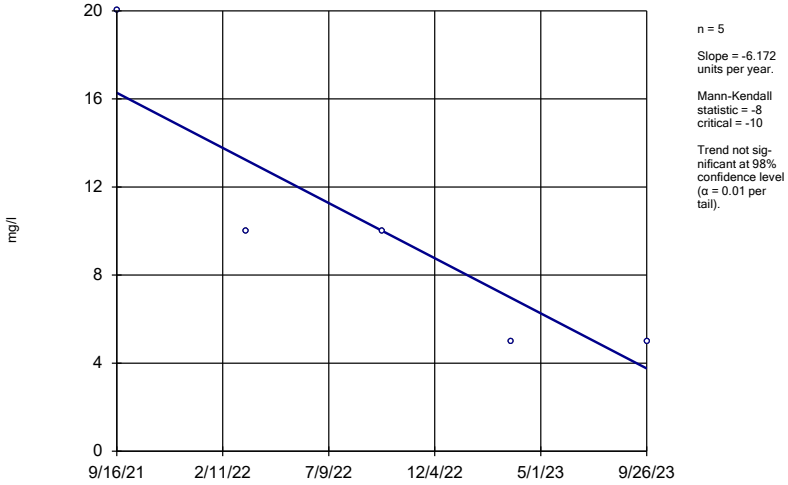


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 5

Slope = -6.172 units per year.

Mann-Kendall statistic = -8
critical = -10

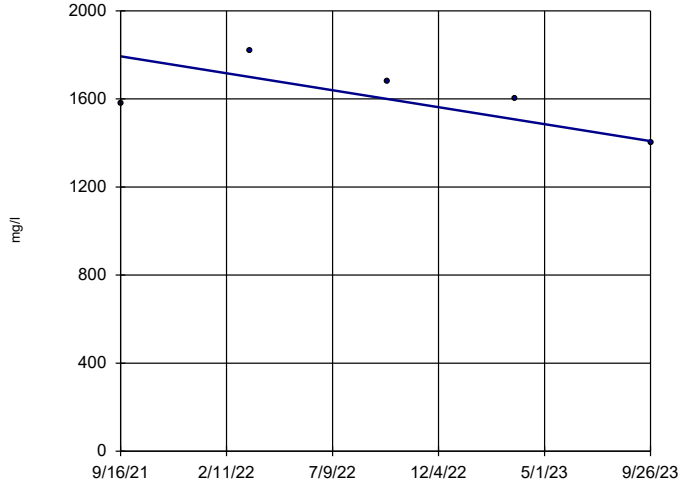
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-11



n = 5

Slope = -189.8 units per year.

Mann-Kendall statistic = -4
critical = -10

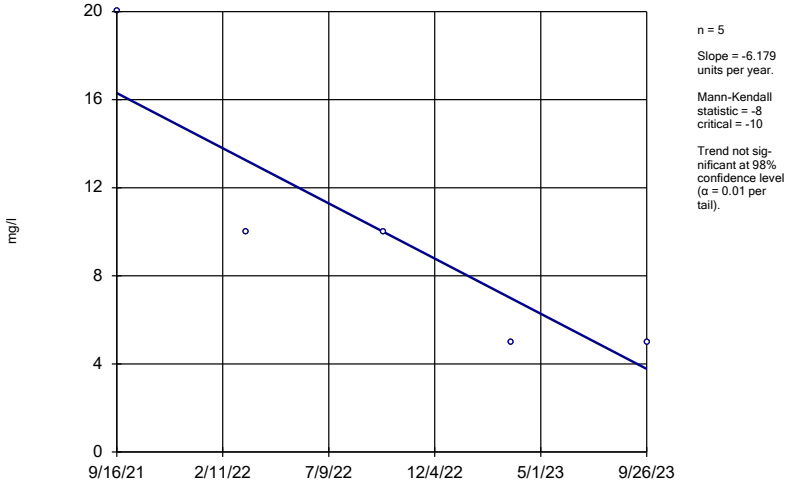
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 5

Slope = -6.179 units per year.

Mann-Kendall statistic = -8
critical = -10

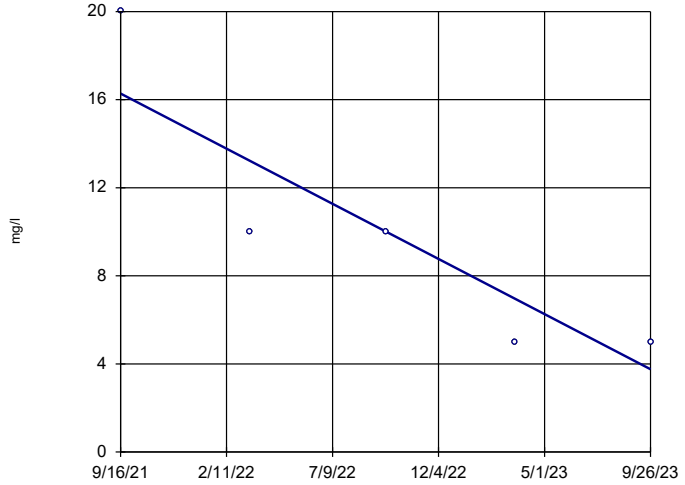
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 5

Slope = -6.172 units per year.

Mann-Kendall statistic = -8
critical = -10

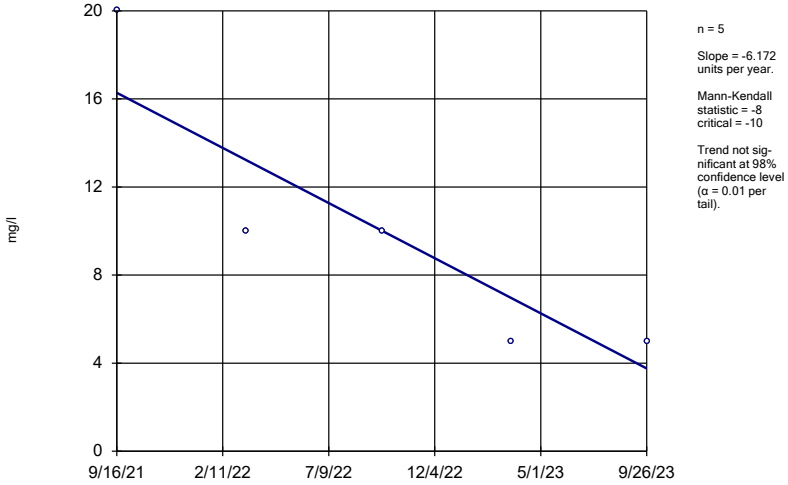
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 5

Slope = -6.172 units per year.

Mann-Kendall statistic = -8
critical = -10

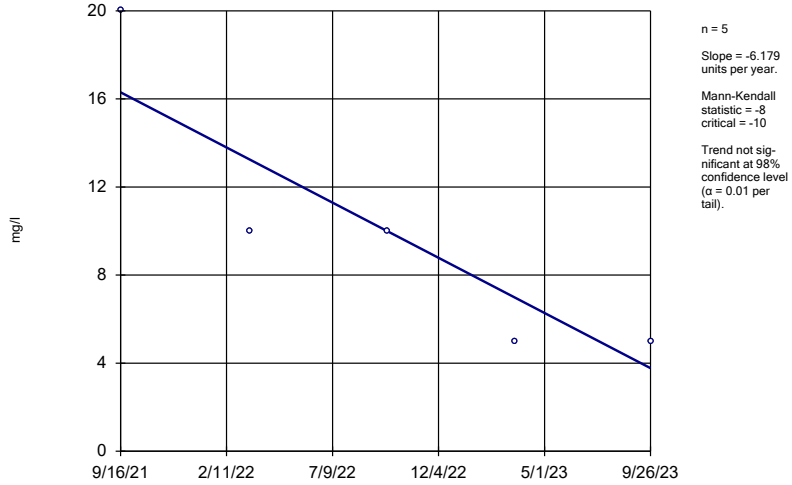
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 5

Slope = -6.179 units per year.

Mann-Kendall statistic = -8
critical = -10

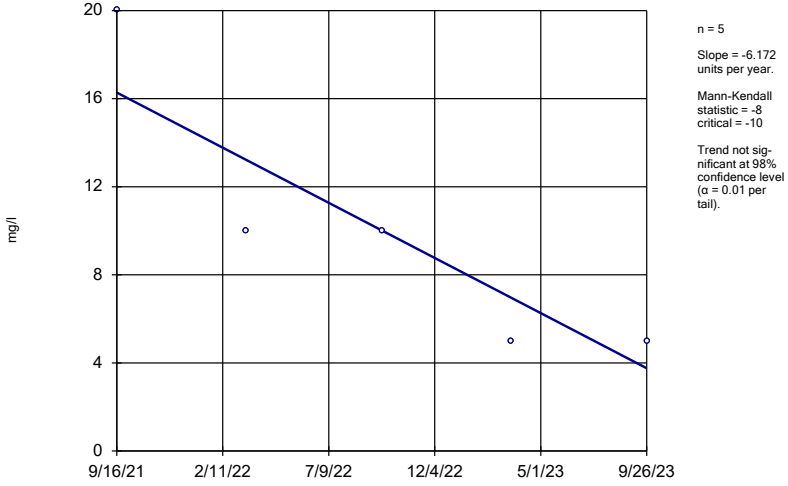
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 5

Slope = -6.172 units per year.

Mann-Kendall statistic = -8
critical = -10

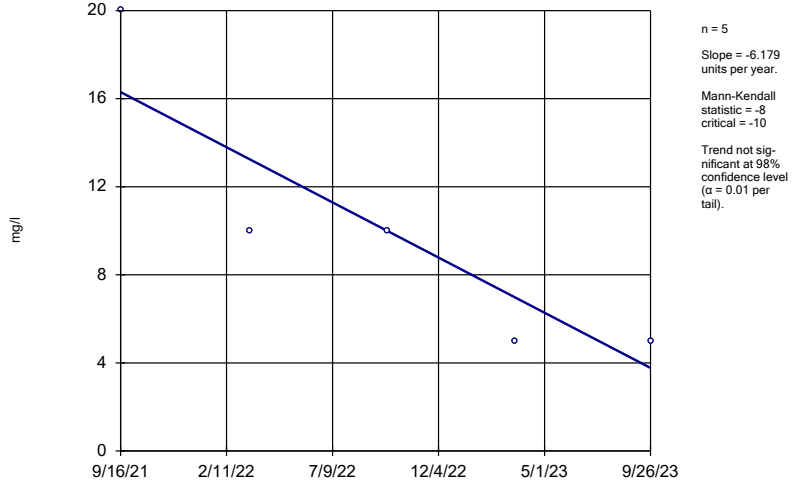
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 5

Slope = -6.179 units per year.

Mann-Kendall statistic = -8
critical = -10

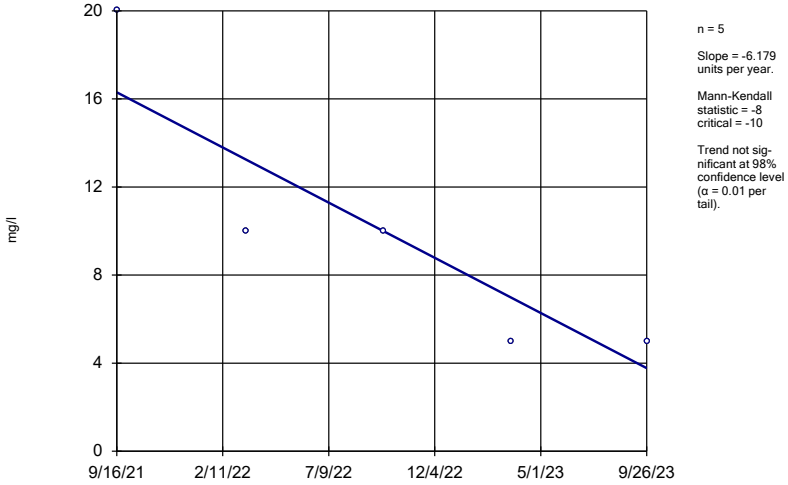
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L

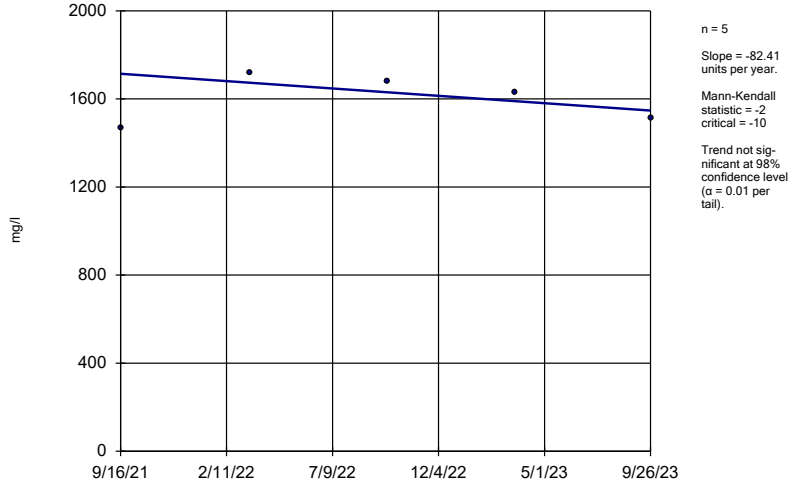


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-18

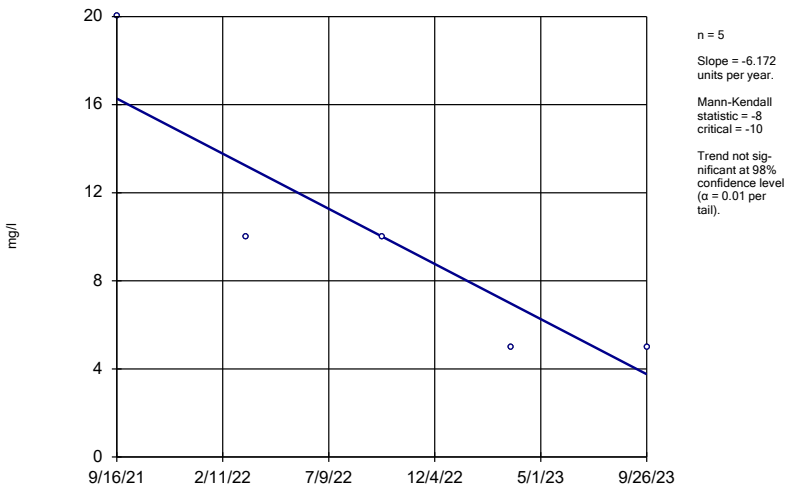


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19

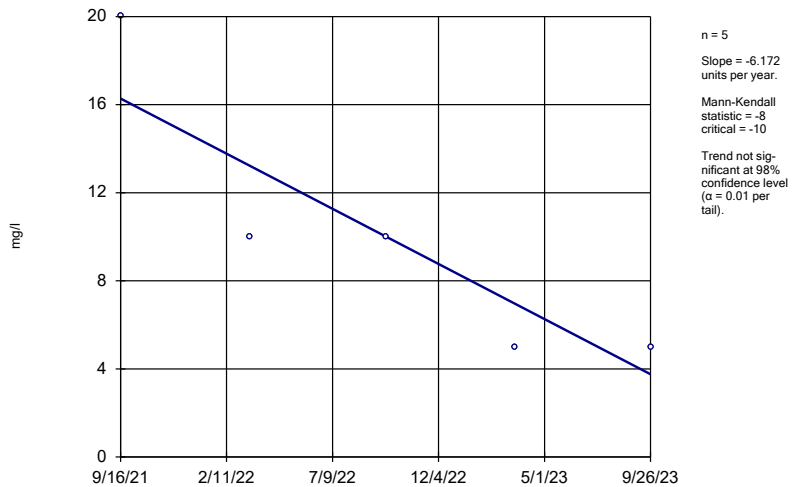


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20

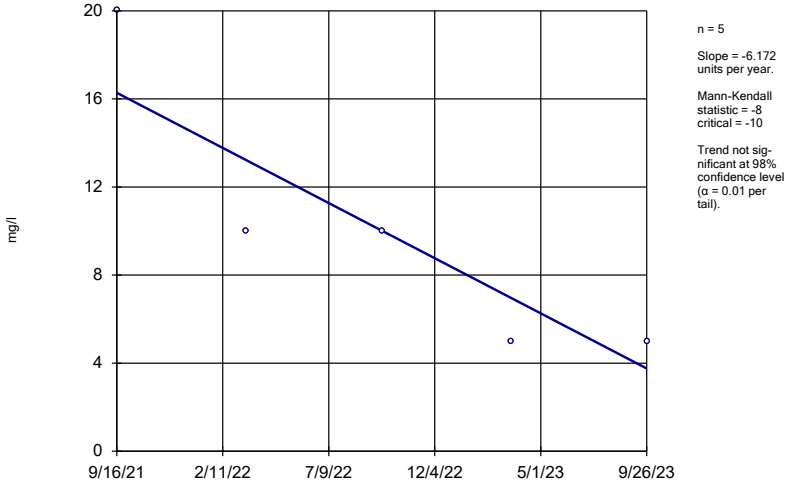


Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = -6.172 units per year.

Mann-Kendall statistic = -8
critical = -10

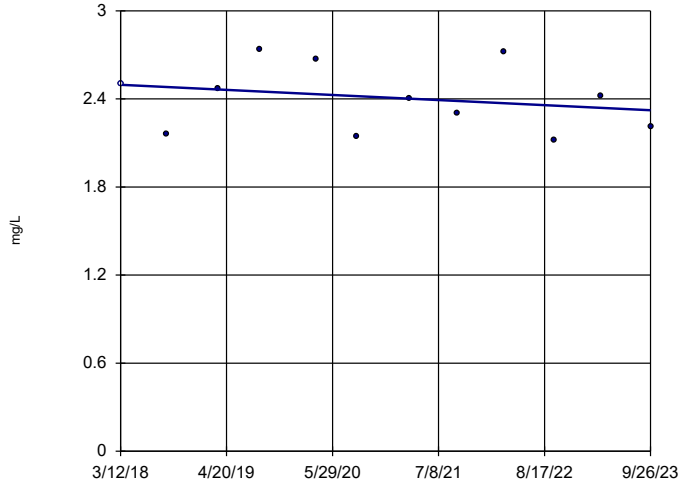
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Carbonate Alkalinity Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.03132 units per year.

Mann-Kendall statistic = -14
critical = -35

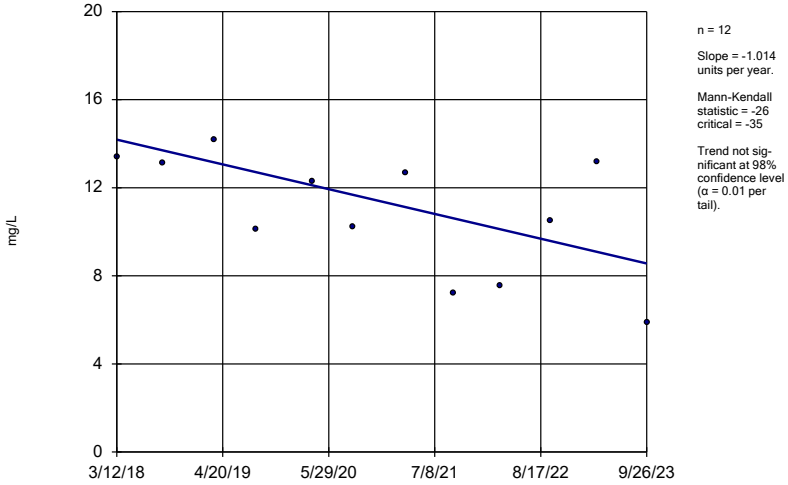
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -1.014 units per year.

Mann-Kendall statistic = -26
critical = -35

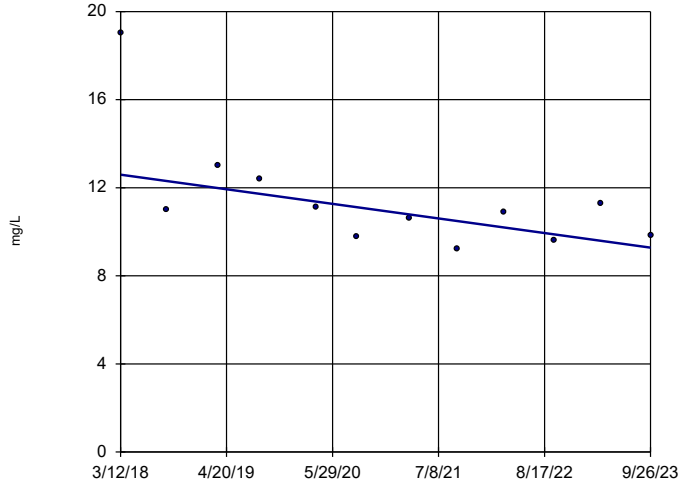
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L



n = 12

Slope = -0.5973 units per year.

Mann-Kendall statistic = -30
critical = -35

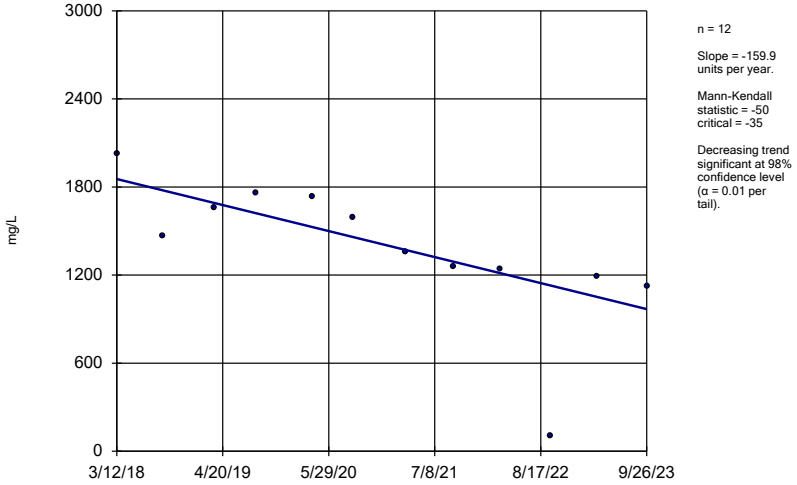
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4



n = 12

Slope = -159.9 units per year.

Mann-Kendall statistic = -50
critical = -35

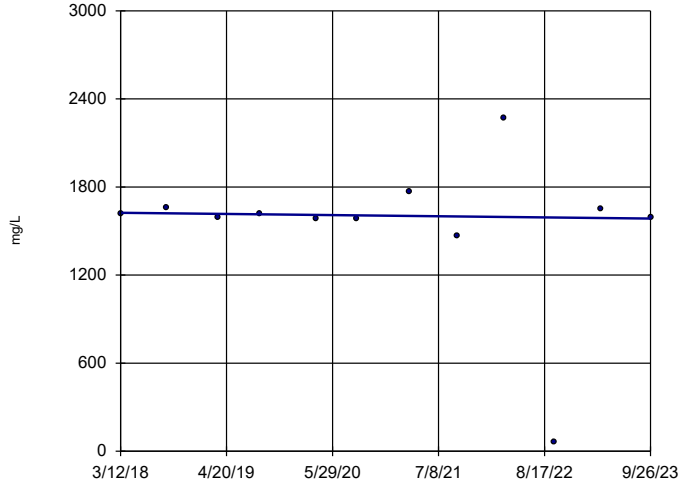
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4L



n = 12

Slope = -7.096 units per year.

Mann-Kendall statistic = -9
critical = -35

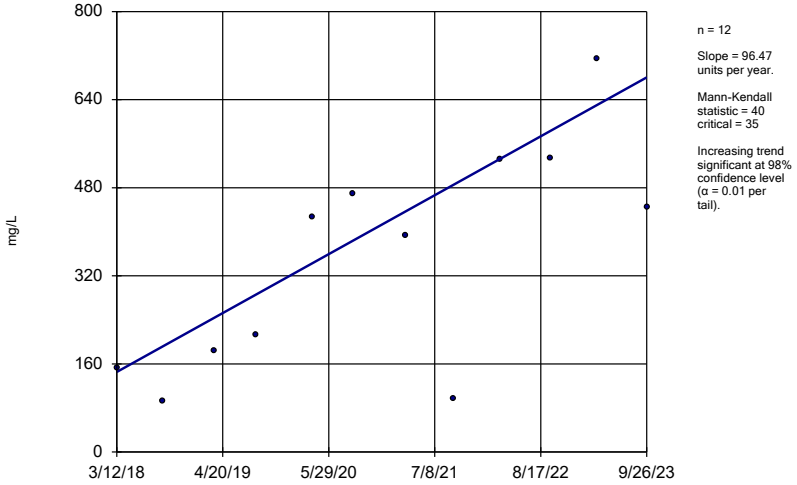
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-5



n = 12

Slope = 96.47 units per year.

Mann-Kendall statistic = 40
critical = 35

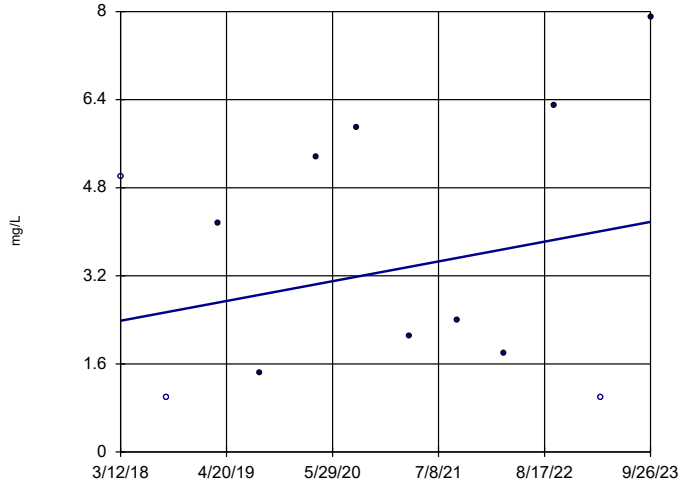
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.3239 units per year.

Mann-Kendall statistic = 11
critical = 35

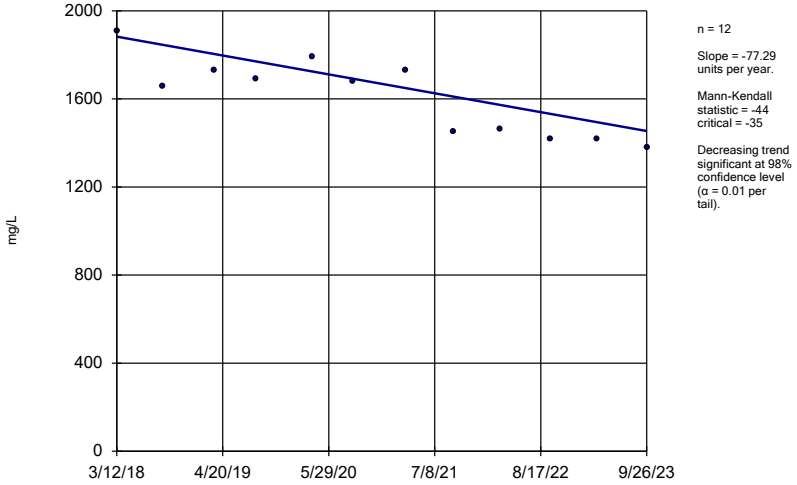
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-11



n = 12

Slope = -77.29 units per year.

Mann-Kendall statistic = -44
critical = -35

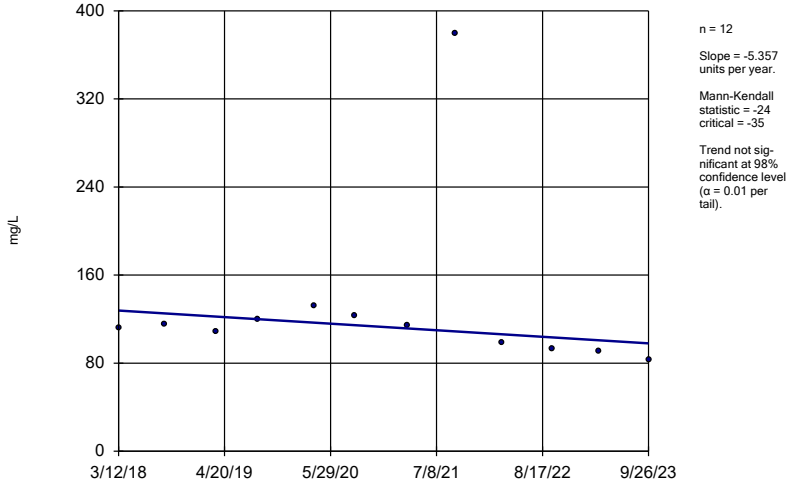
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-12



n = 12

Slope = -5.357 units per year.

Mann-Kendall statistic = -24
critical = -35

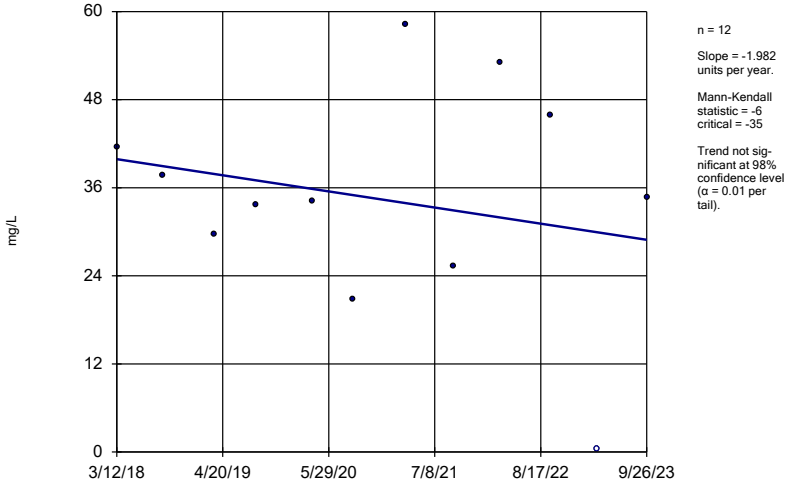
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = -1.982 units per year.

Mann-Kendall statistic = -6
critical = -35

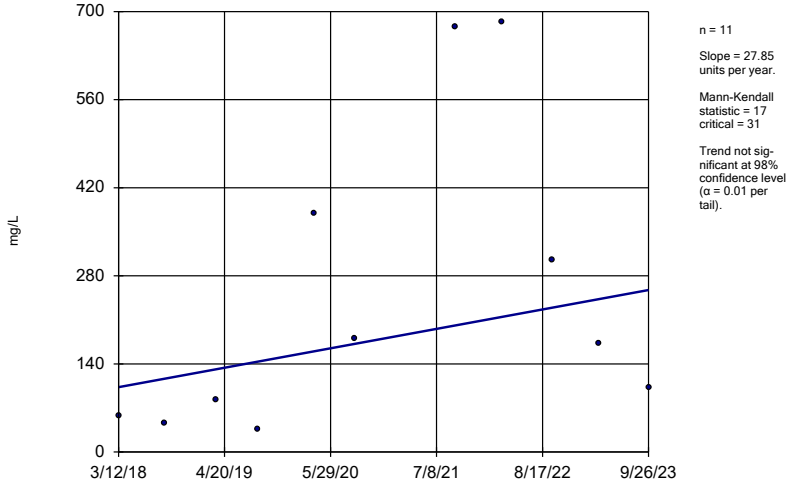
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 27.85 units per year.

Mann-Kendall statistic = 17
critical = 31

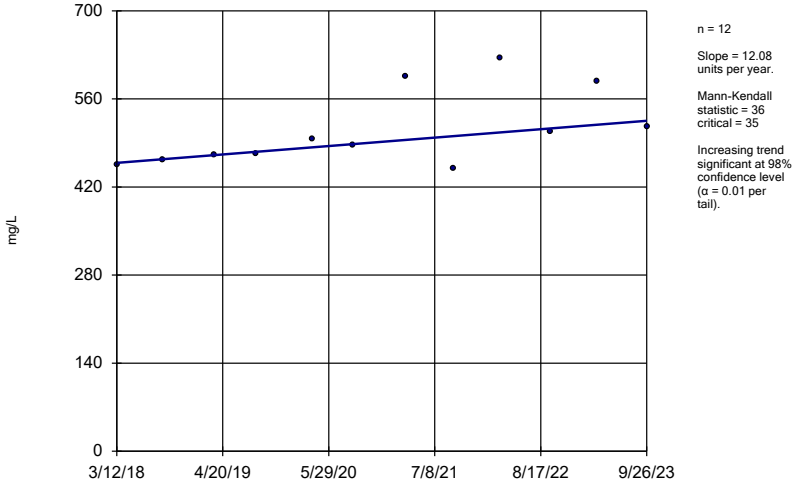
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-14



n = 12

Slope = 12.08 units per year.

Mann-Kendall statistic = 36 critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

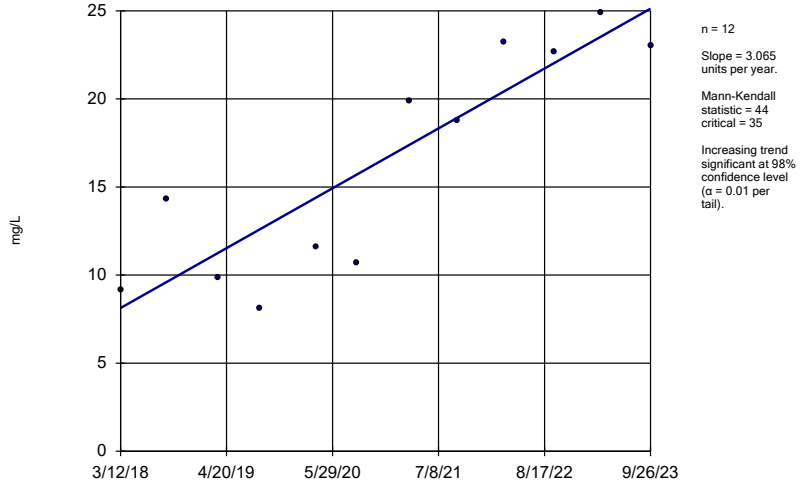
Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 3.065 units per year.

Mann-Kendall statistic = 44 critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

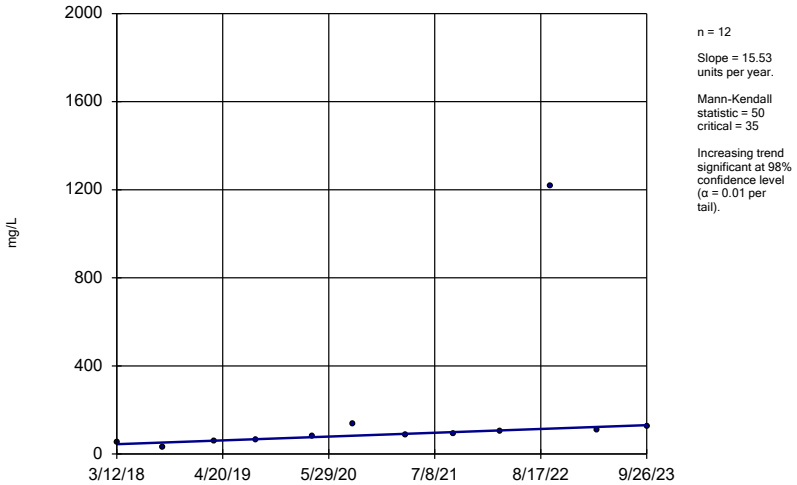
Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16



n = 12

Slope = 15.53 units per year.

Mann-Kendall statistic = 50 critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

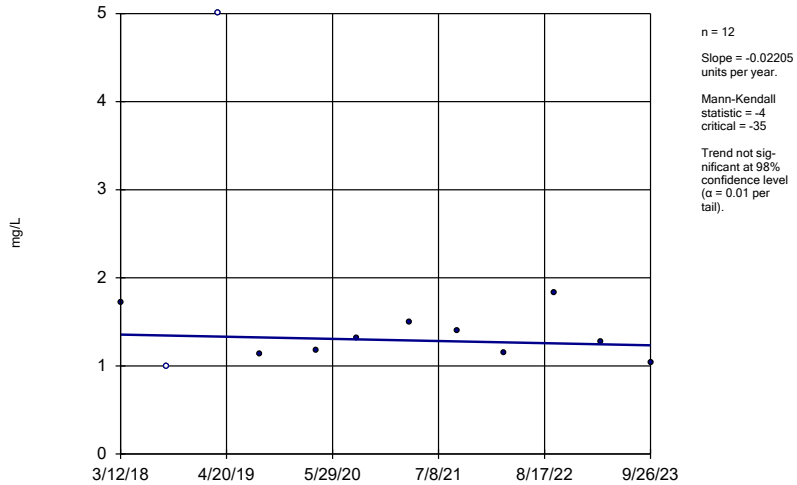
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.02205 units per year.

Mann-Kendall statistic = -4 critical = -35

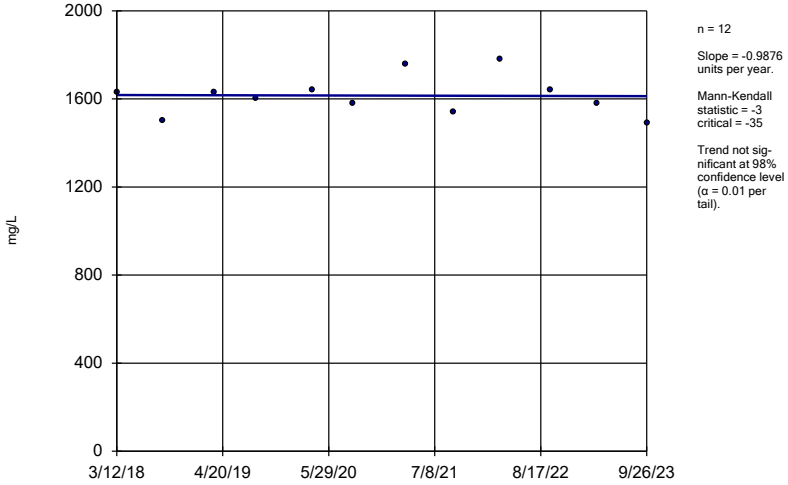
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

Sen's Slope Estimator

MW-18



n = 12

Slope = -0.9876 units per year.

Mann-Kendall statistic = -3 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

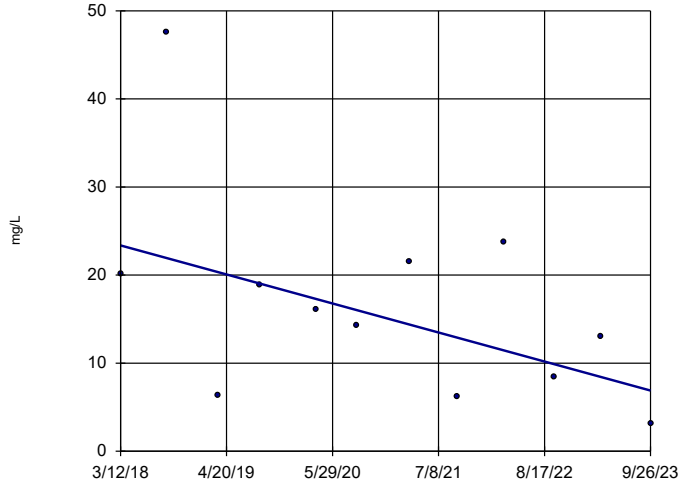
Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = -2.968 units per year.

Mann-Kendall statistic = -24 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

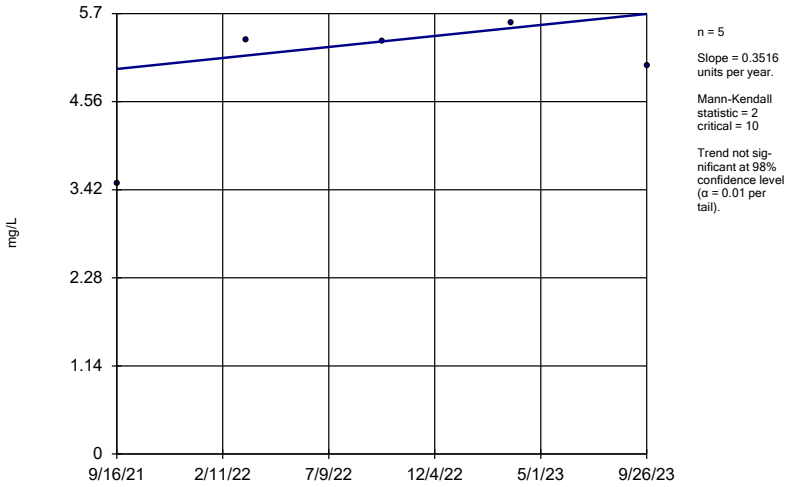
Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20



n = 5

Slope = 0.3516 units per year.

Mann-Kendall statistic = 2 critical = 10

Trend not significant at 98% confidence level (α = 0.01 per tail).

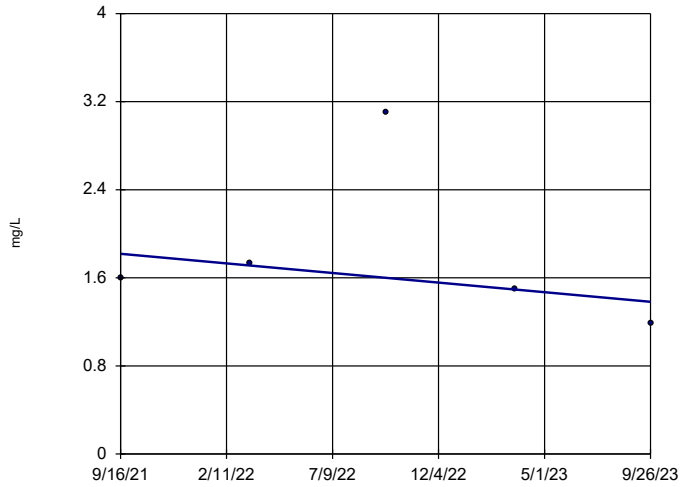
Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21



n = 5

Slope = -0.2146 units per year.

Mann-Kendall statistic = -4 critical = -10

Trend not significant at 98% confidence level (α = 0.01 per tail).

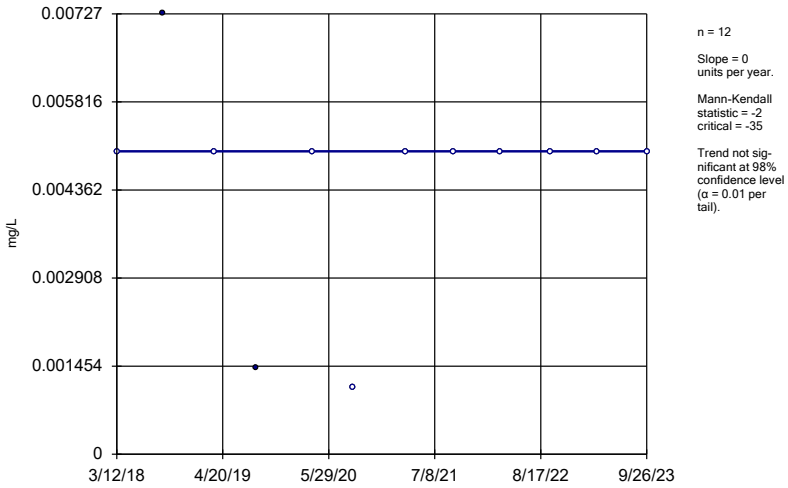
Constituent: Chloride Analysis Run 11/22/2023 4:51 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

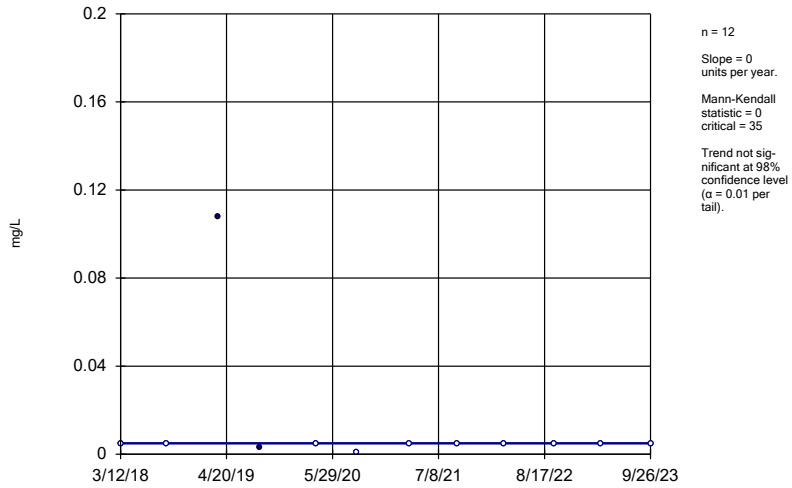


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

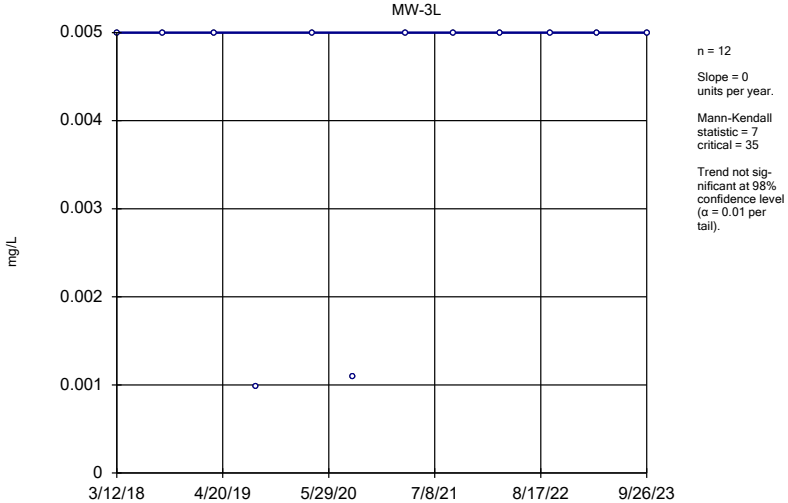


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

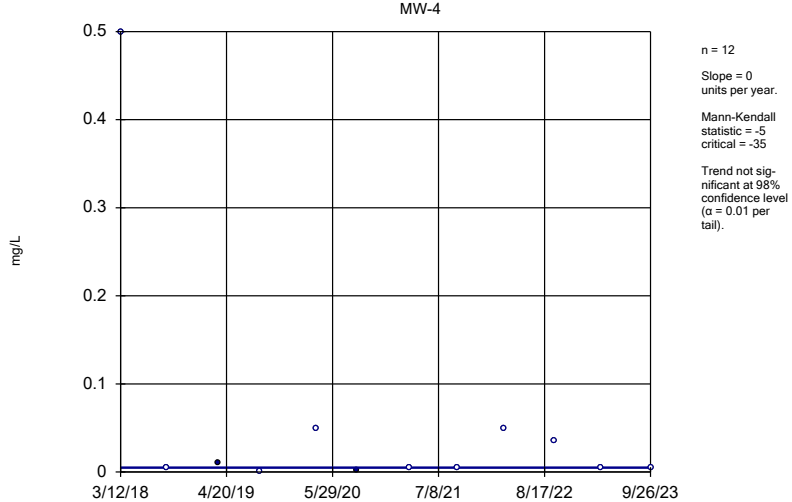


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4

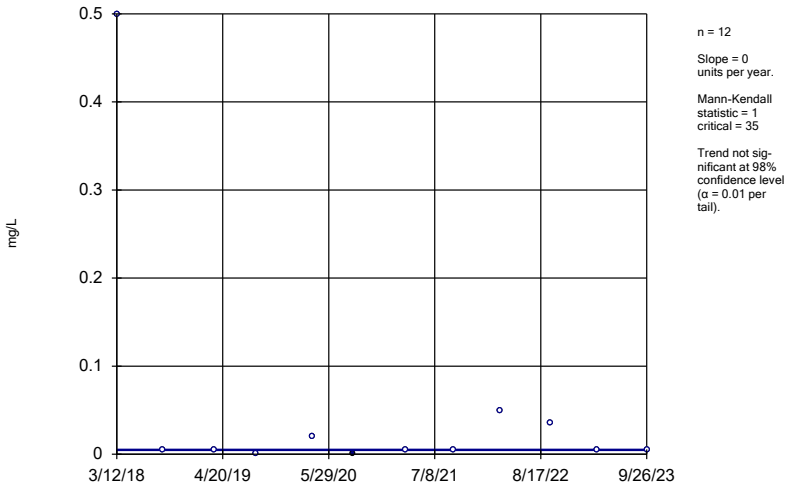


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L

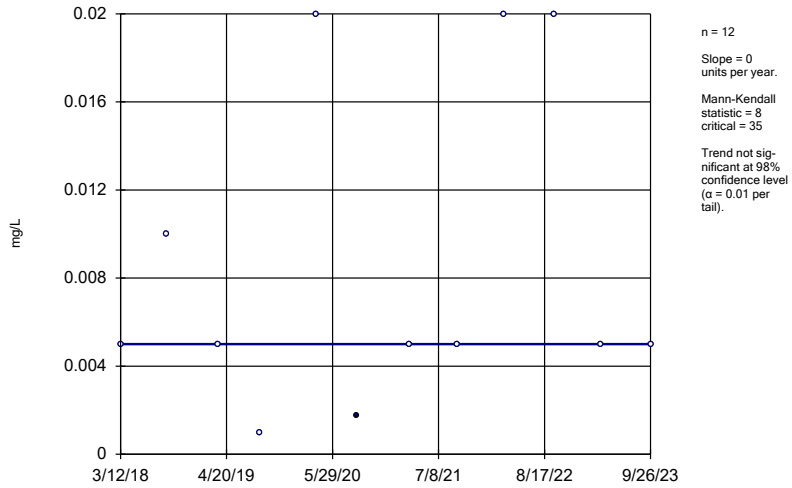


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

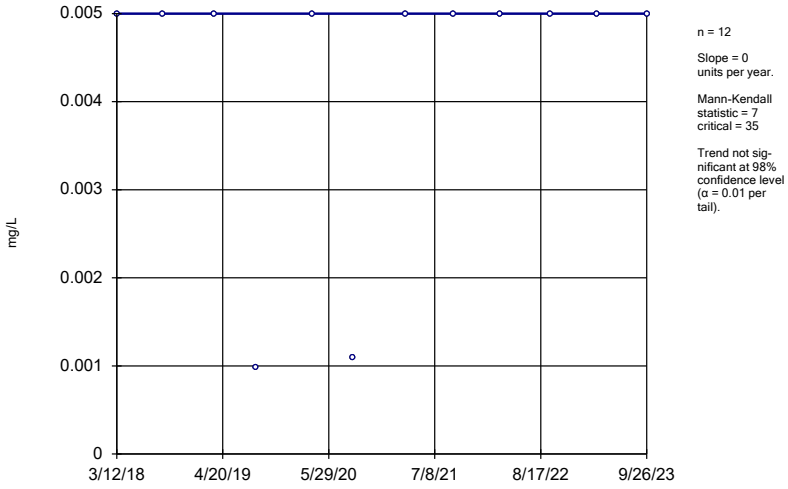


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)

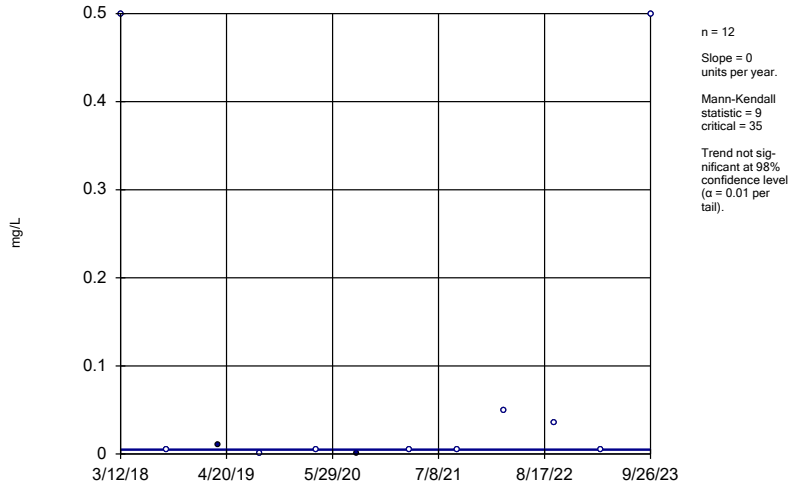


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11

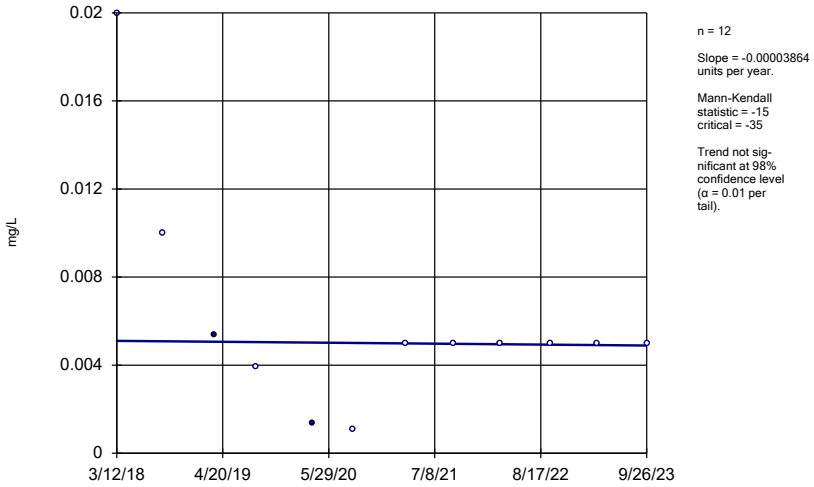


Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.00003864 units per year.

Mann-Kendall statistic = -15
critical = -35

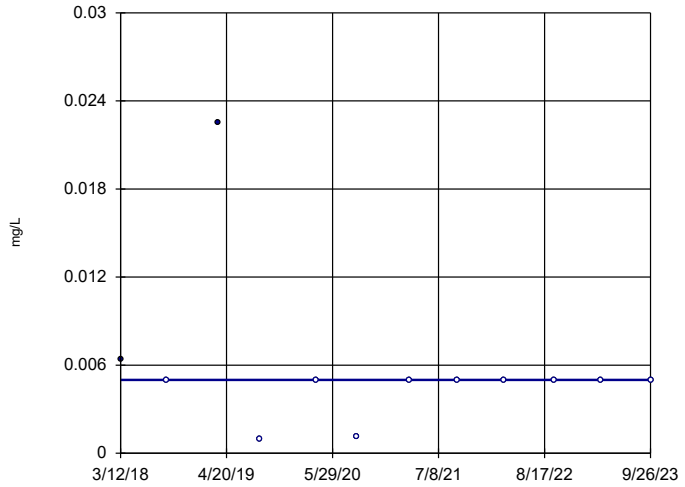
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -6
critical = -35

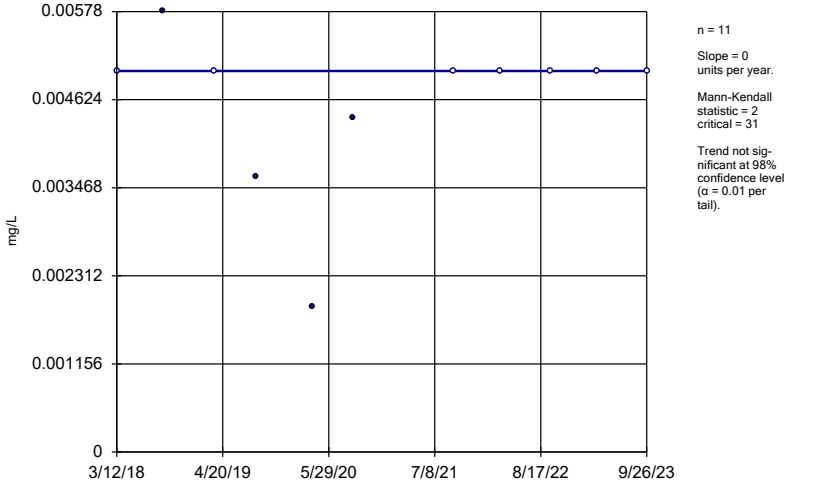
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 31

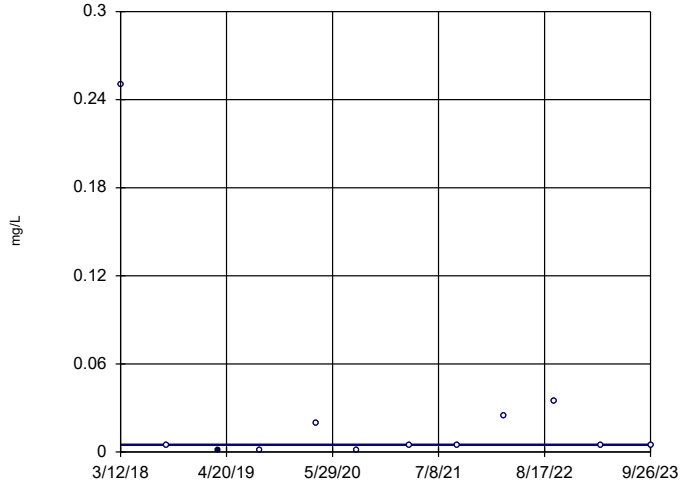
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

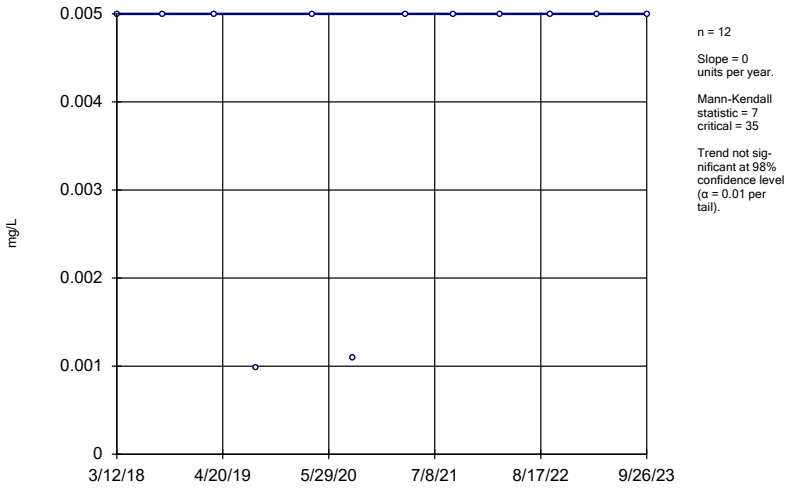
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 7
critical = 35

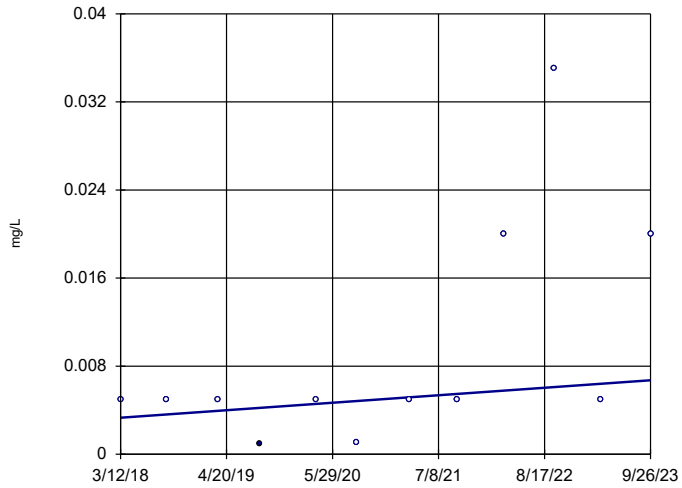
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0006122 units per year.

Mann-Kendall statistic = 24
critical = 35

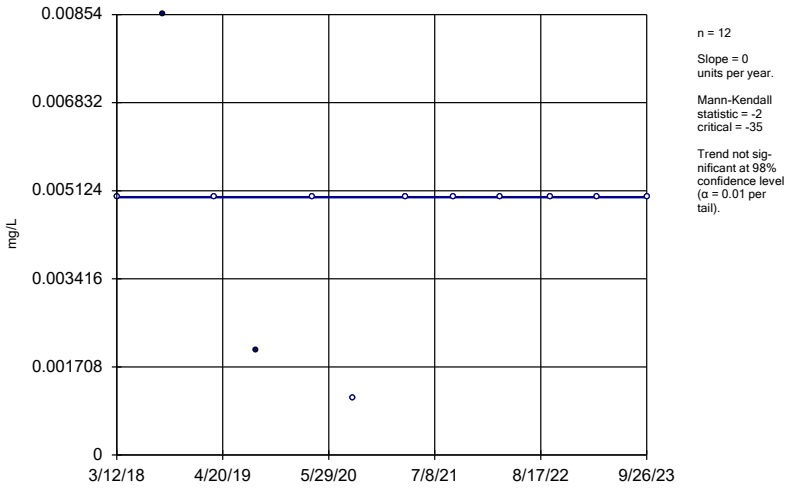
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -2
critical = -35

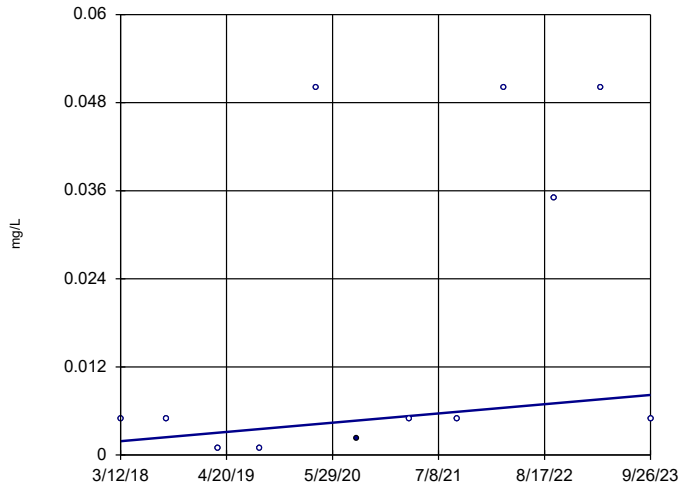
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.001136 units per year.

Mann-Kendall statistic = 22
critical = 35

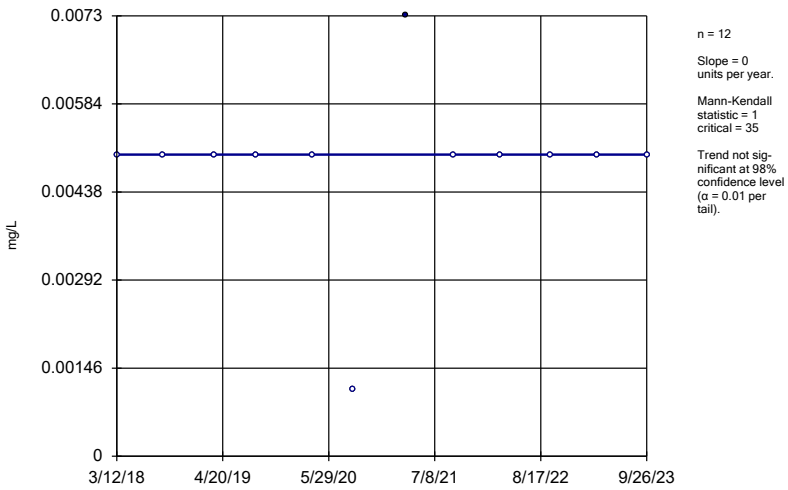
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 35

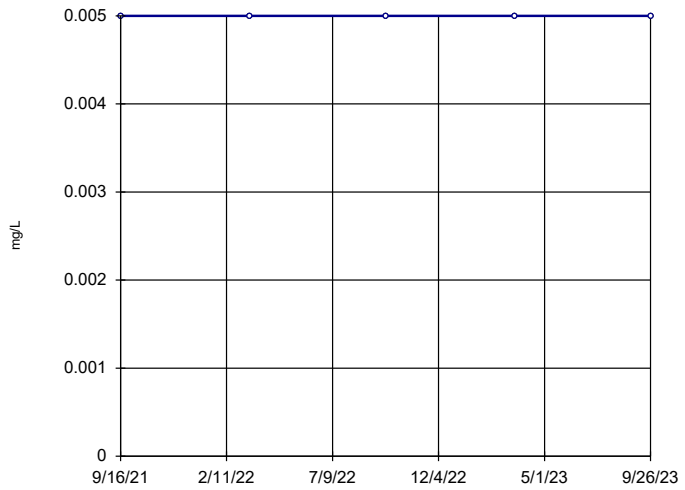
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 10

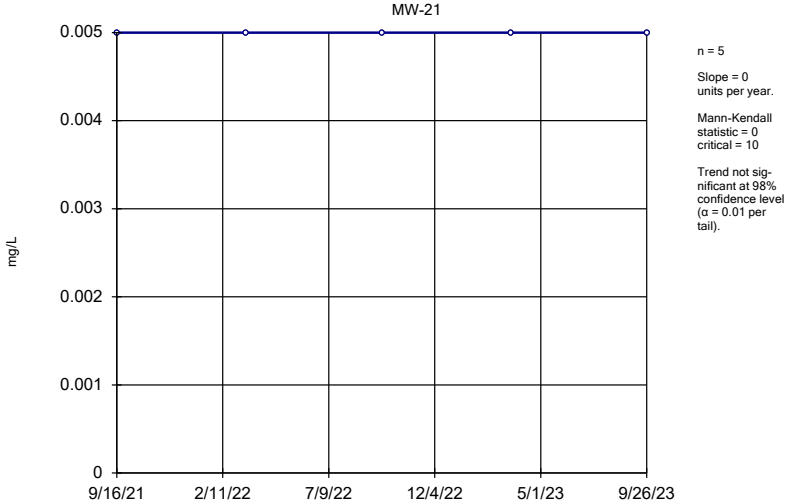
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 10

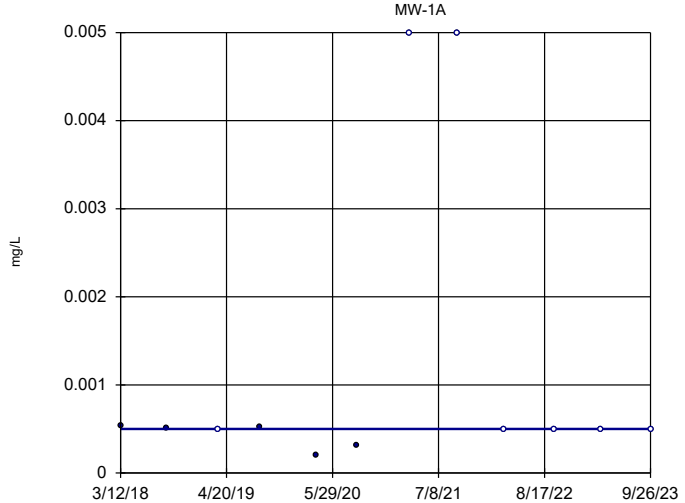
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chromium Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -9
critical = -35

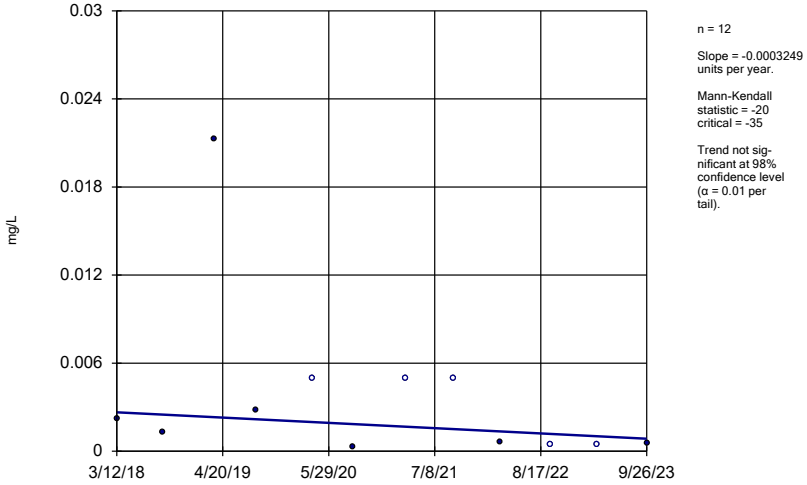
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -0.0003249 units per year.

Mann-Kendall statistic = -20
critical = -35

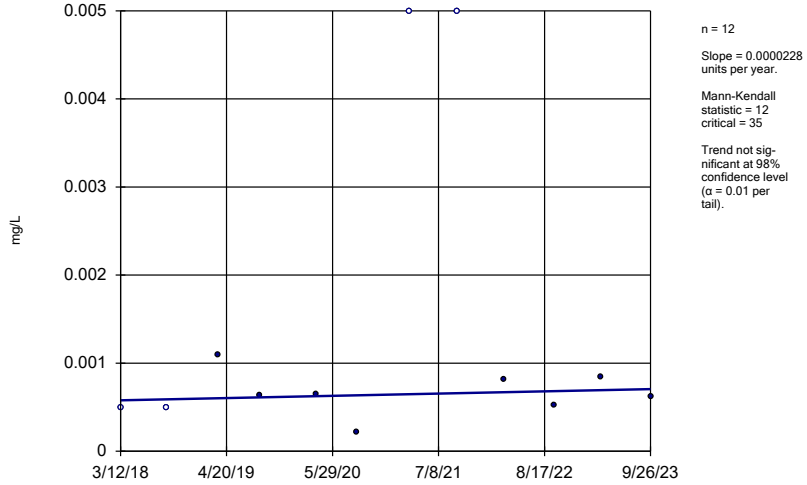
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0.0000228 units per year.

Mann-Kendall statistic = 12
critical = 35

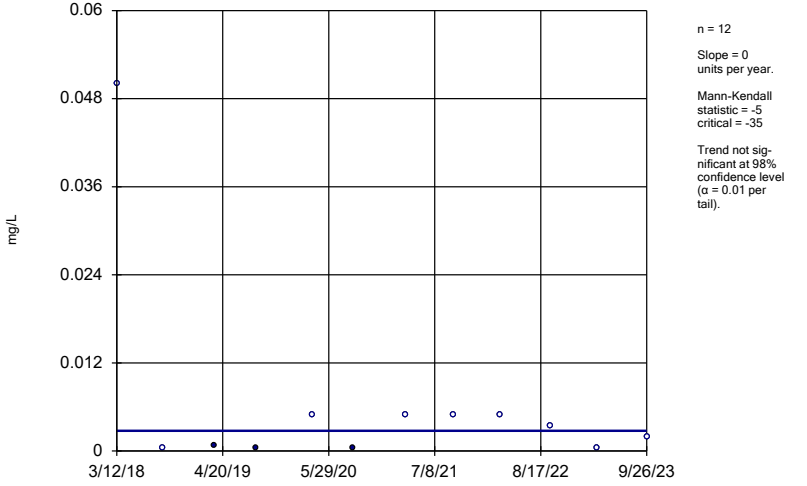
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -5
critical = -35

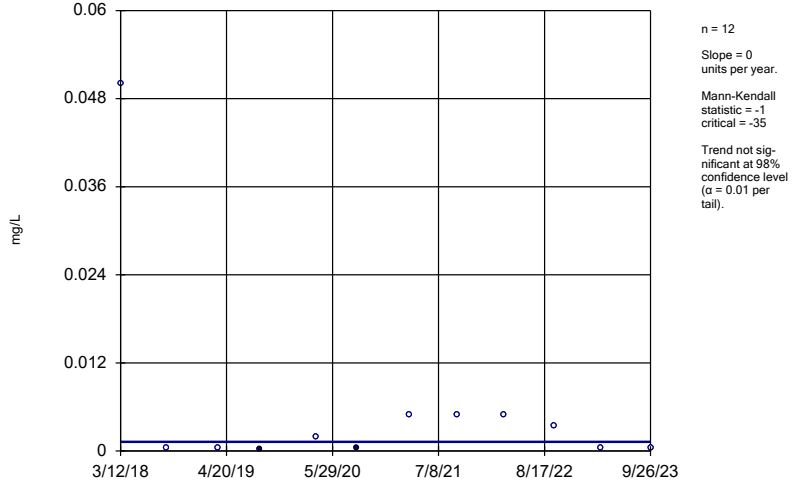
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

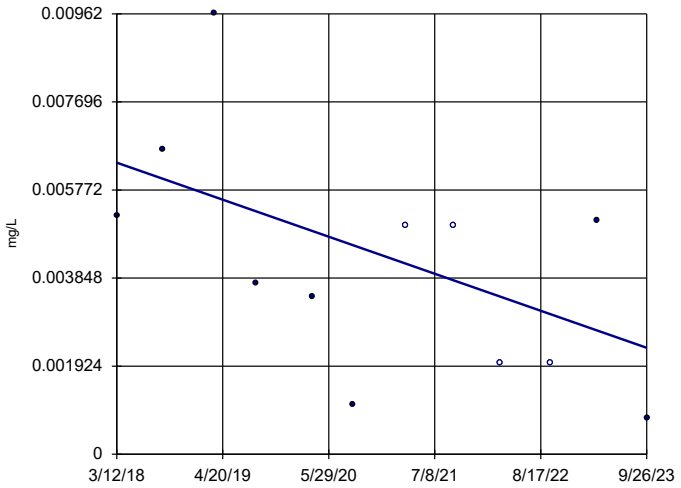
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = -0.0007289 units per year.

Mann-Kendall statistic = -28
critical = -35

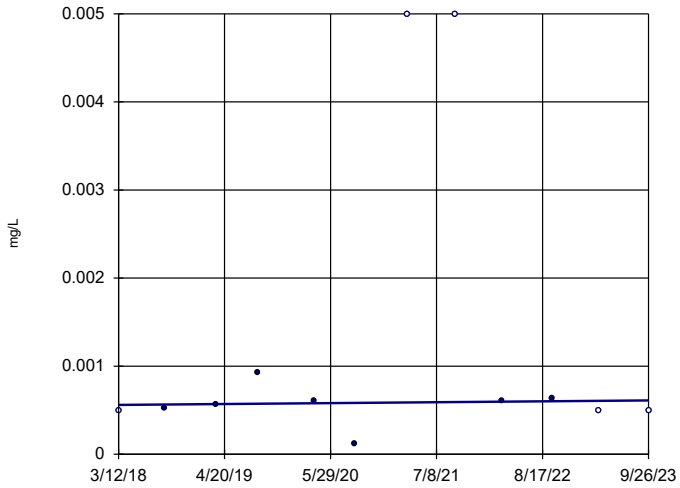
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:51 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.000009297 units per year.

Mann-Kendall statistic = 6
critical = 35

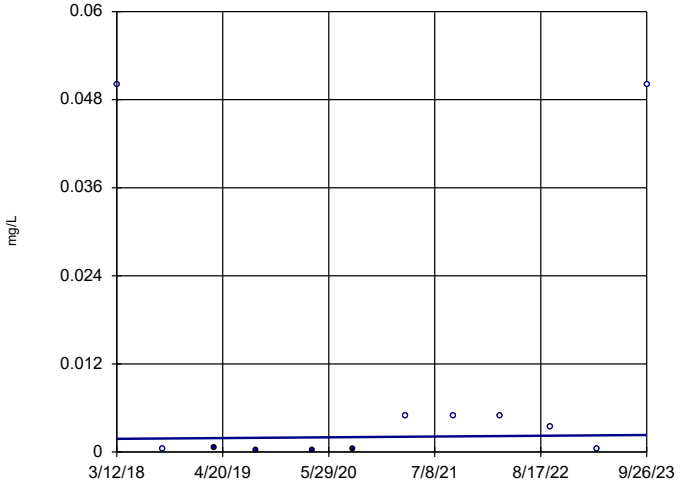
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.00009319 units per year.

Mann-Kendall statistic = 11
critical = 35

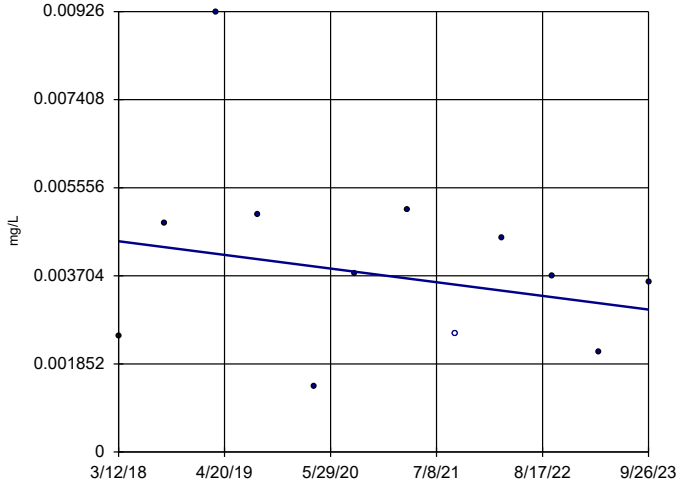
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.0002592 units per year.

Mann-Kendall statistic = -14
critical = -35

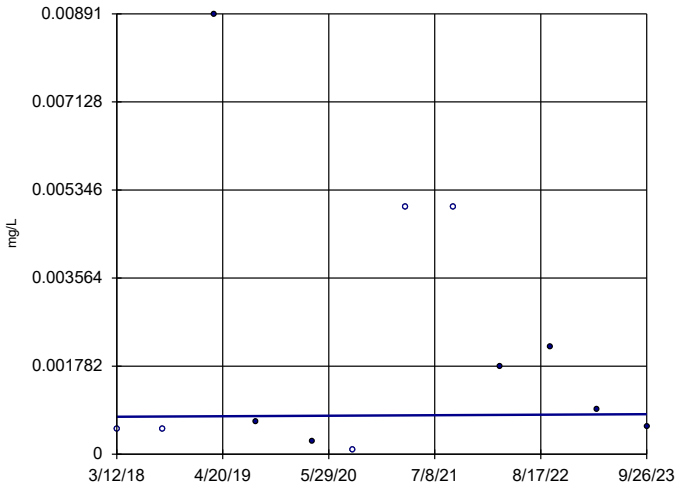
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0.000009635 units per year.

Mann-Kendall statistic = 4
critical = 35

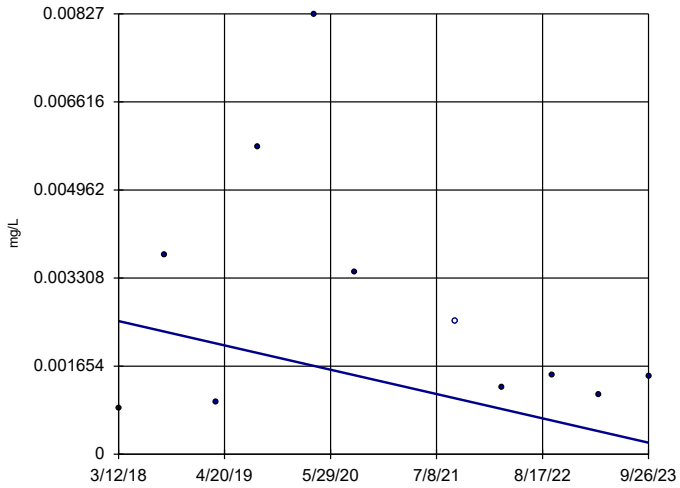
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.0004118 units per year.

Mann-Kendall statistic = -7
critical = -31

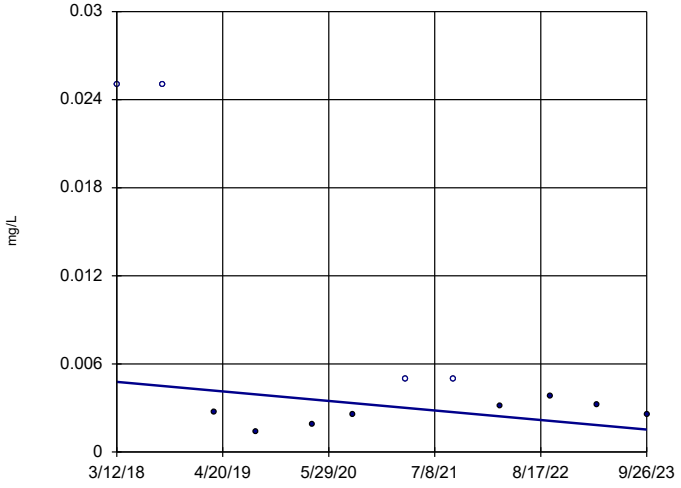
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.0005851 units per year.

Mann-Kendall statistic = -8
critical = -35

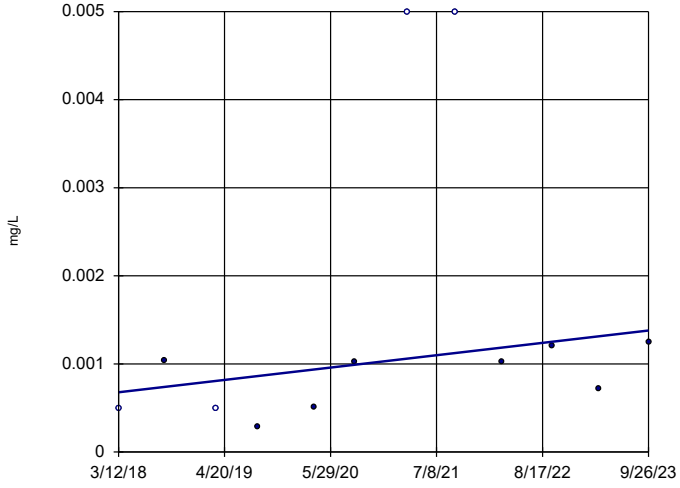
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.0001265 units per year.

Mann-Kendall statistic = 26
critical = 35

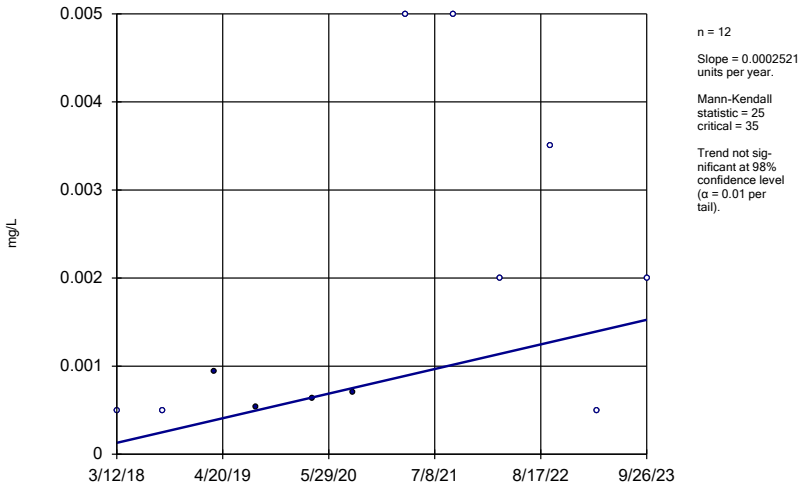
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0002521 units per year.

Mann-Kendall statistic = 25
critical = 35

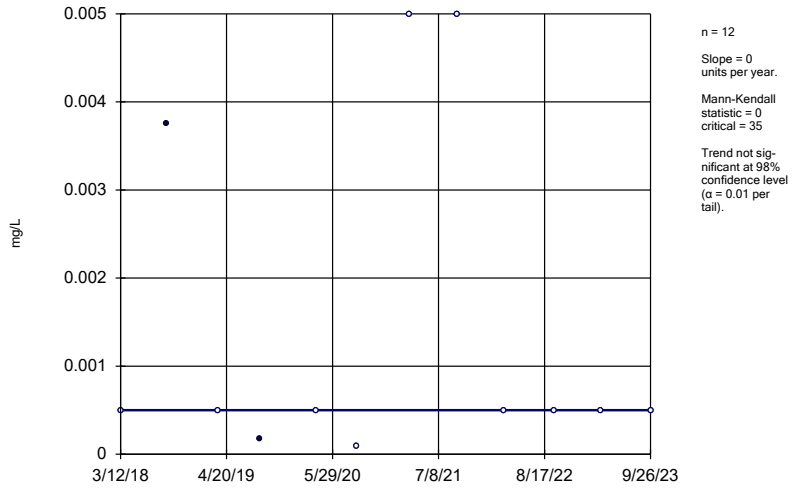
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 35

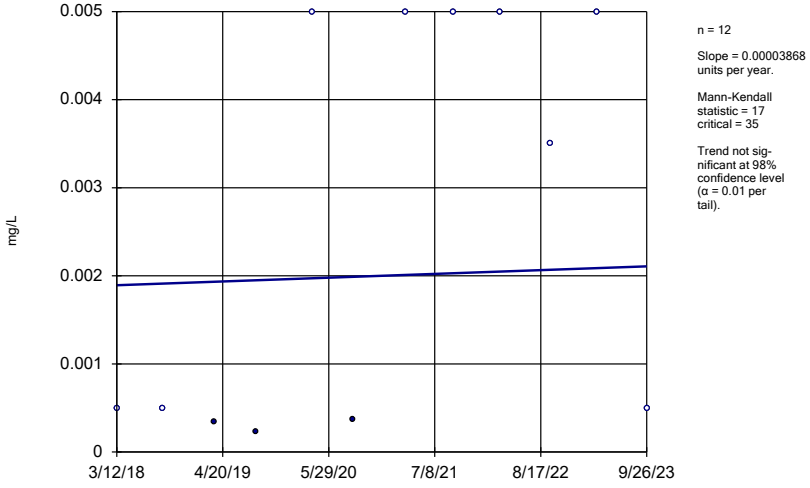
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.00003868 units per year.

Mann-Kendall statistic = 17
critical = 35

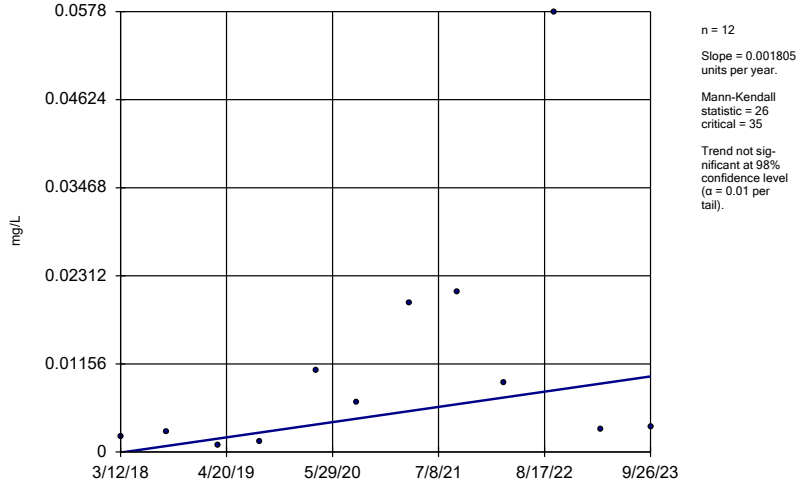
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.001805 units per year.

Mann-Kendall statistic = 26
critical = 35

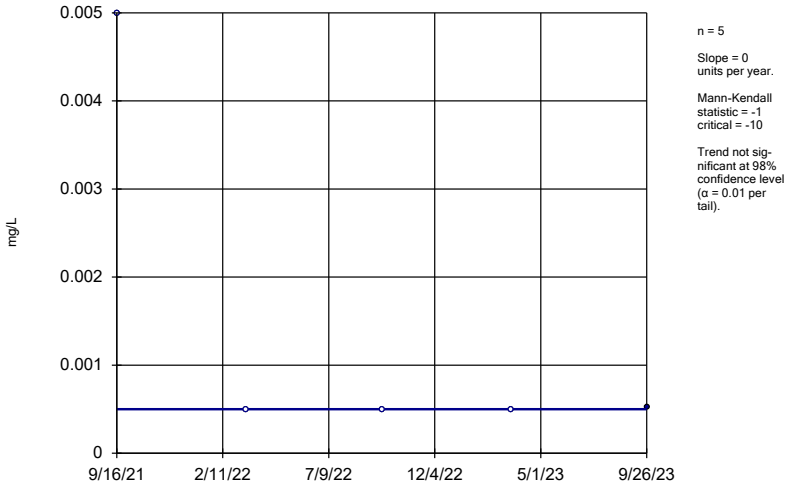
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -10

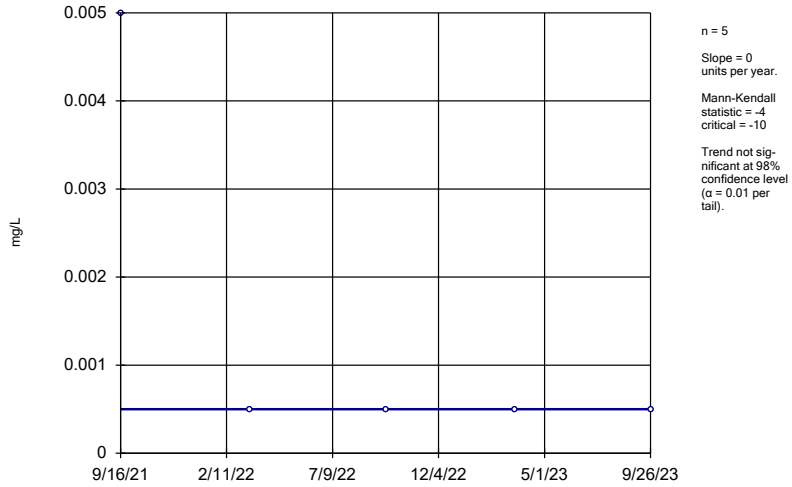
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

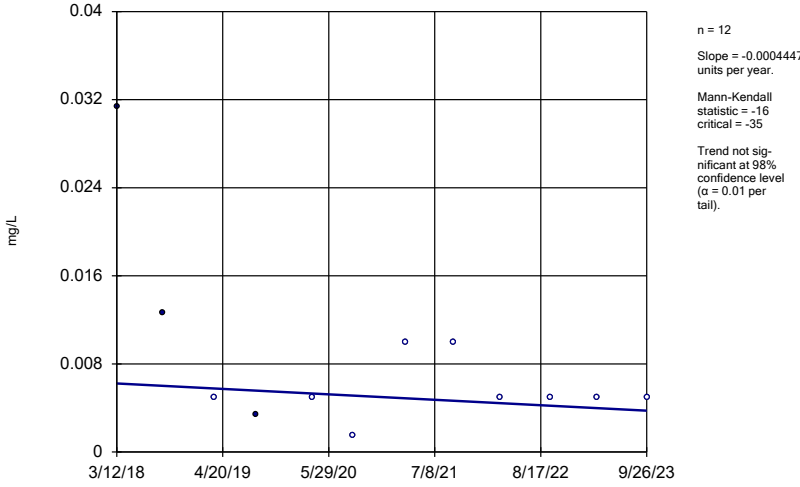
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.0004447 units per year.

Mann-Kendall statistic = -16
critical = -35

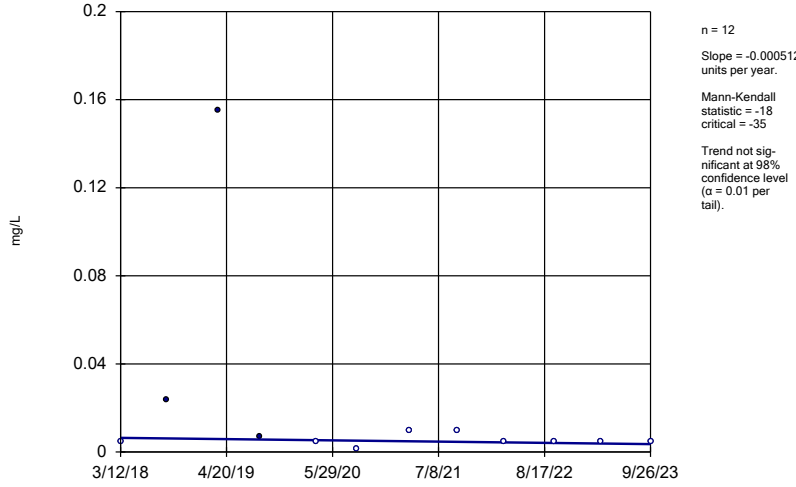
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -0.0005122 units per year.

Mann-Kendall statistic = -18
critical = -35

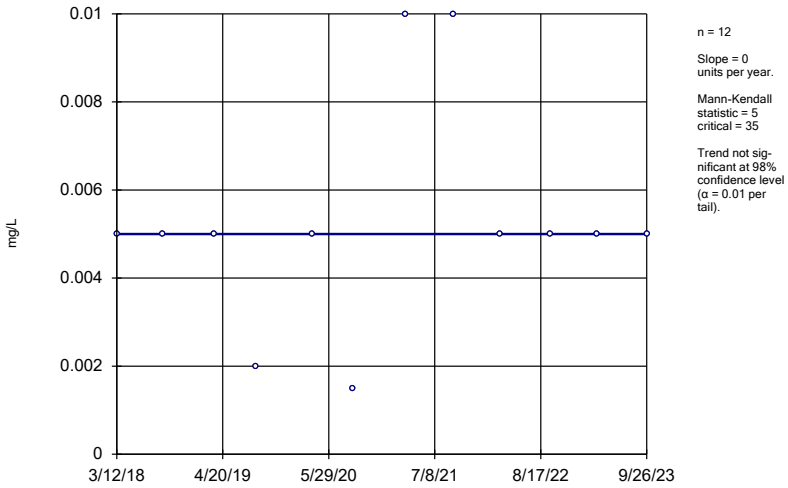
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

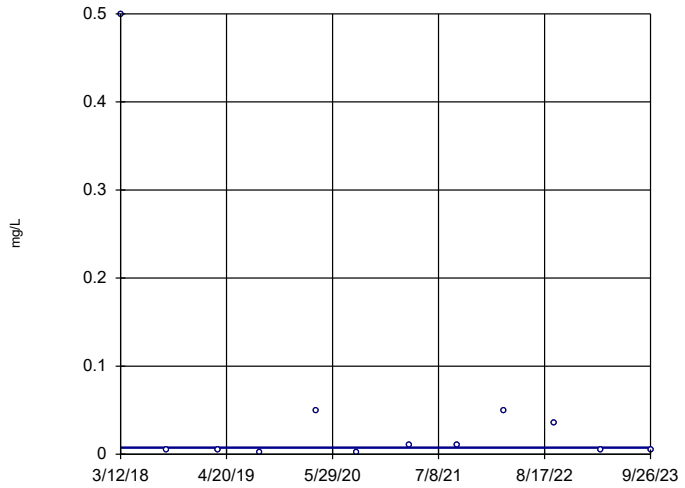
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -35

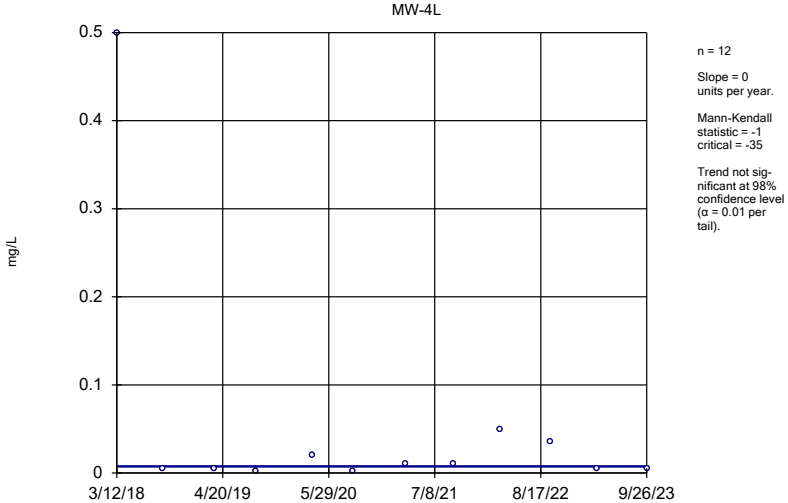
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

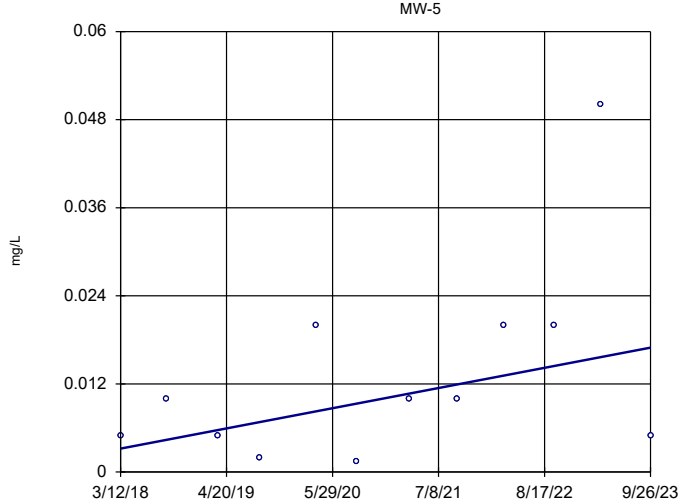
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.00248 units per year.

Mann-Kendall statistic = 21
critical = 35

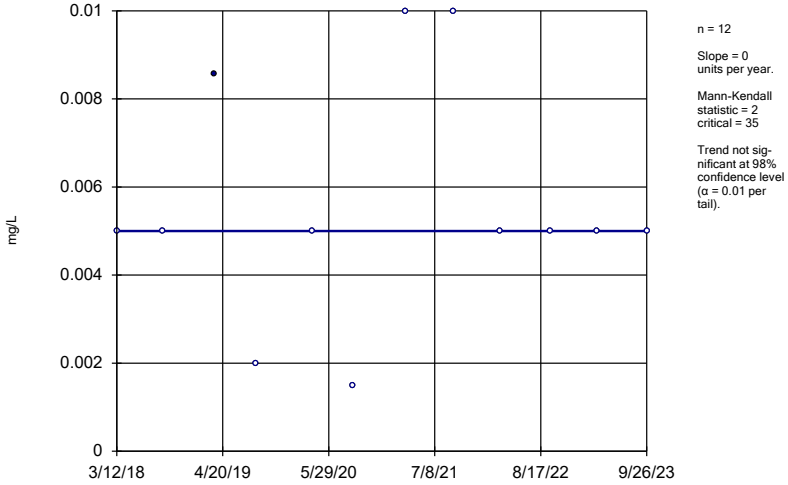
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = 2
critical = 35

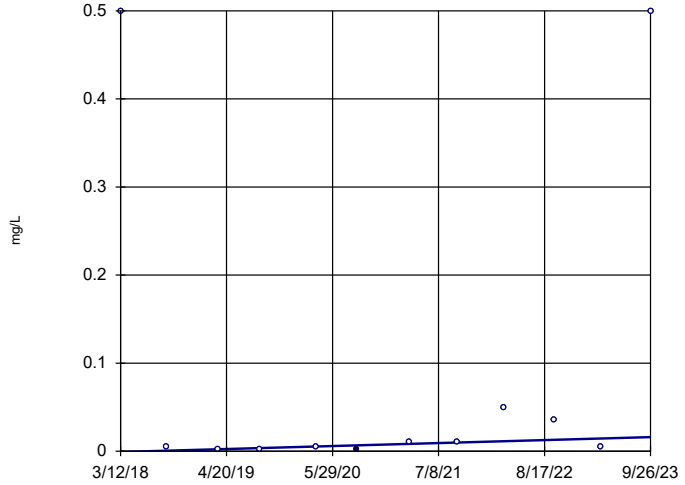
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.003063
units per year.

Mann-Kendall
statistic = 18
critical = 35

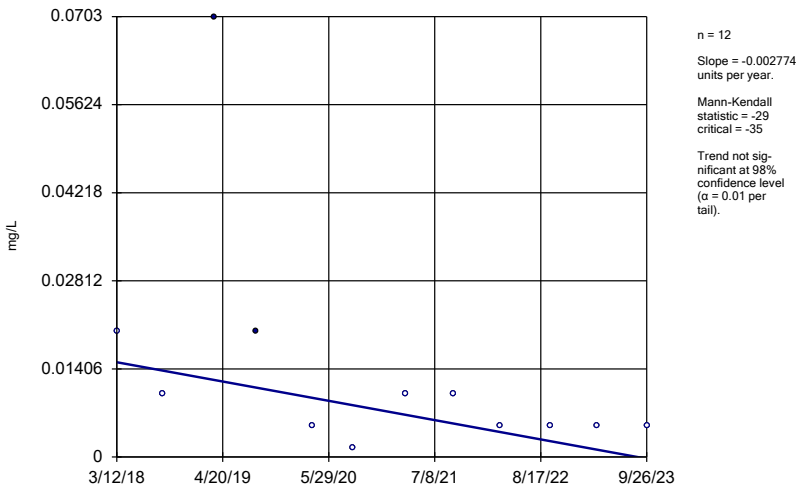
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.002774
units per year.

Mann-Kendall
statistic = -29
critical = -35

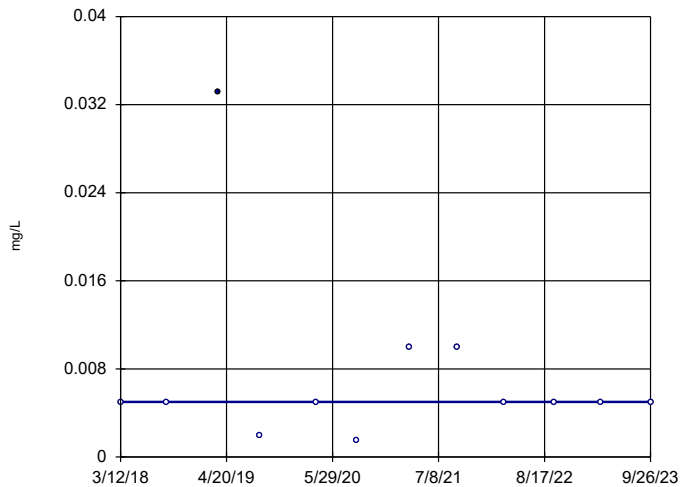
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = -2
critical = -35

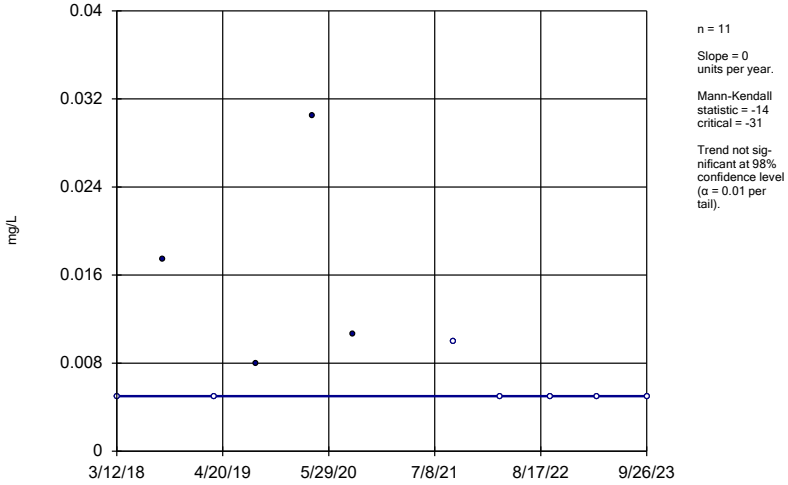
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = -14
critical = -31

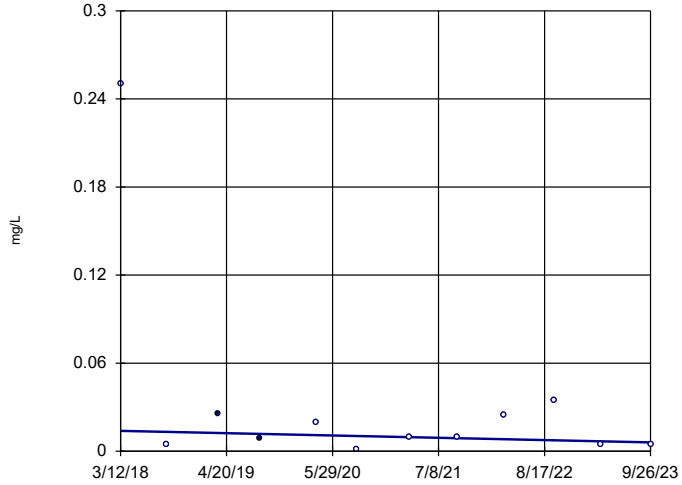
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.001397 units per year.

Mann-Kendall statistic = -10
critical = -35

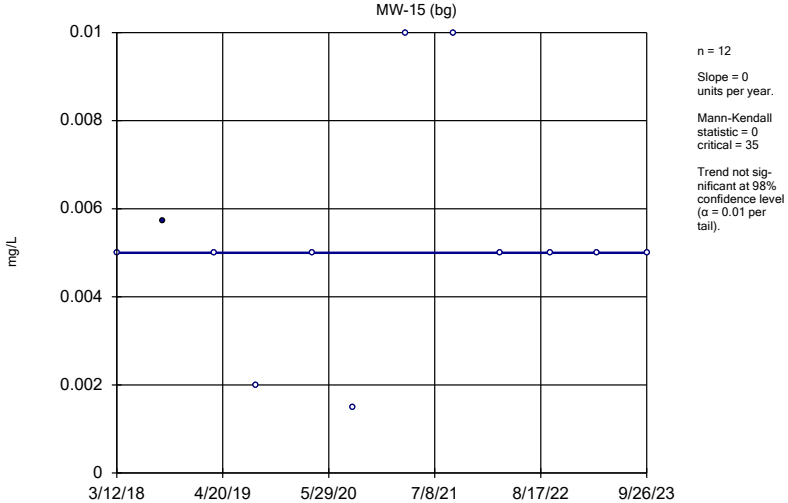
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 35

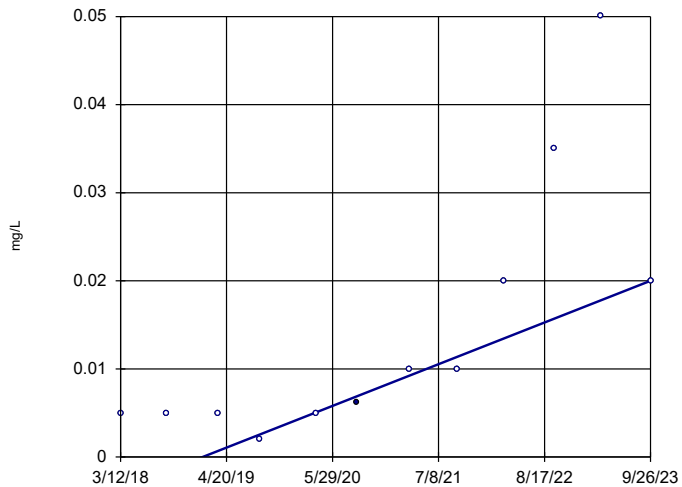
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.004266 units per year.

Mann-Kendall statistic = 48
critical = 35

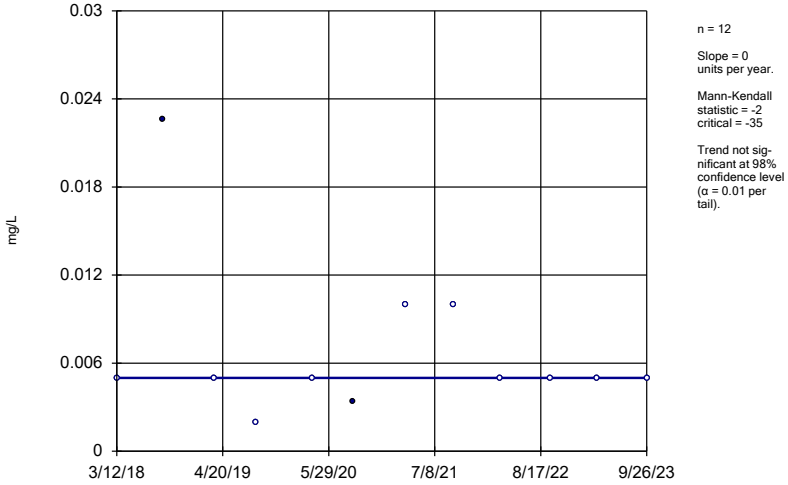
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -2 critical = -35

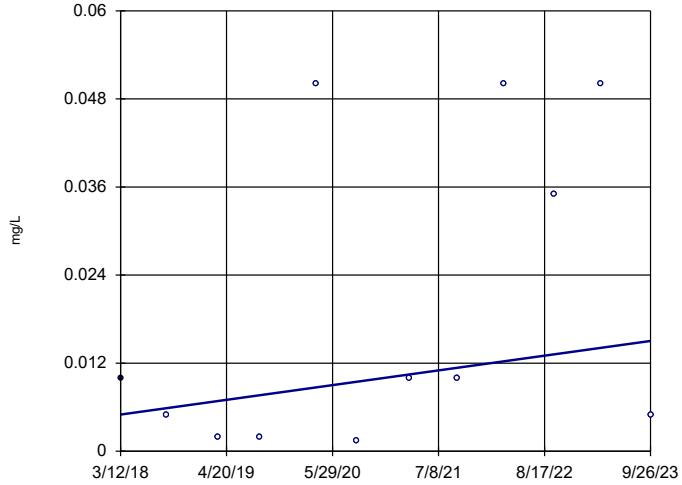
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.001809 units per year.

Mann-Kendall statistic = 18 critical = 35

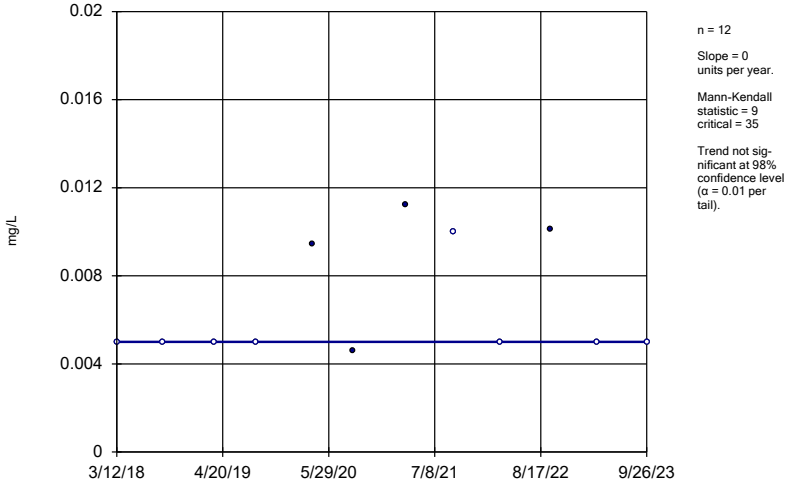
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 9 critical = 35

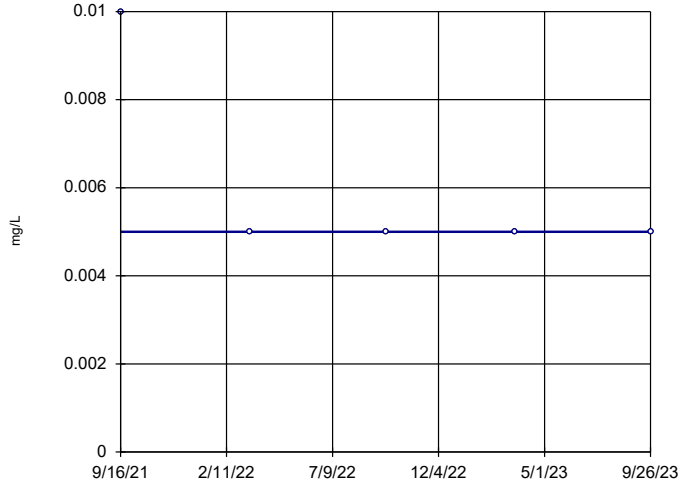
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4 critical = -10

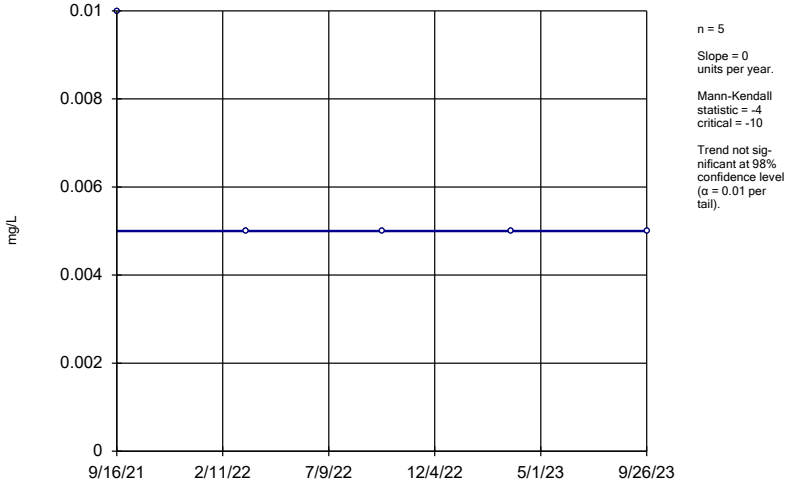
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

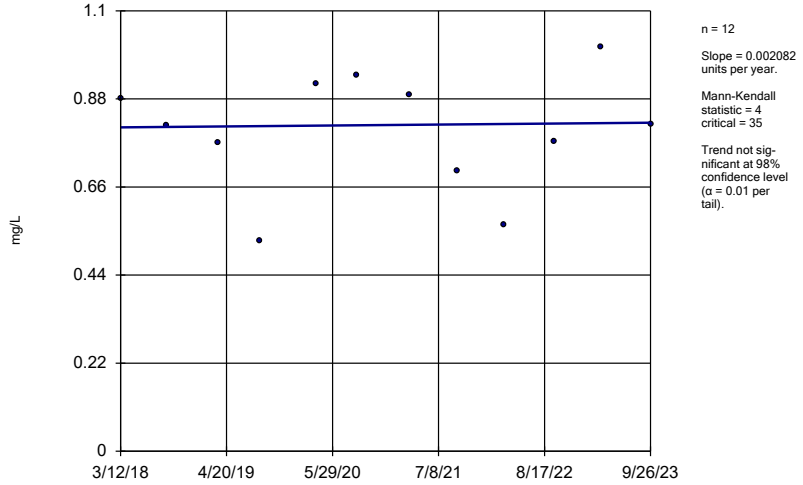


Constituent: Copper Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A

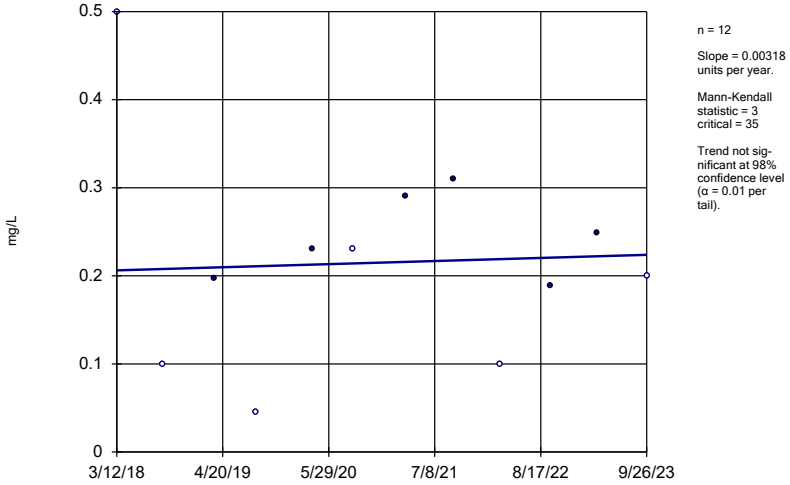


Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

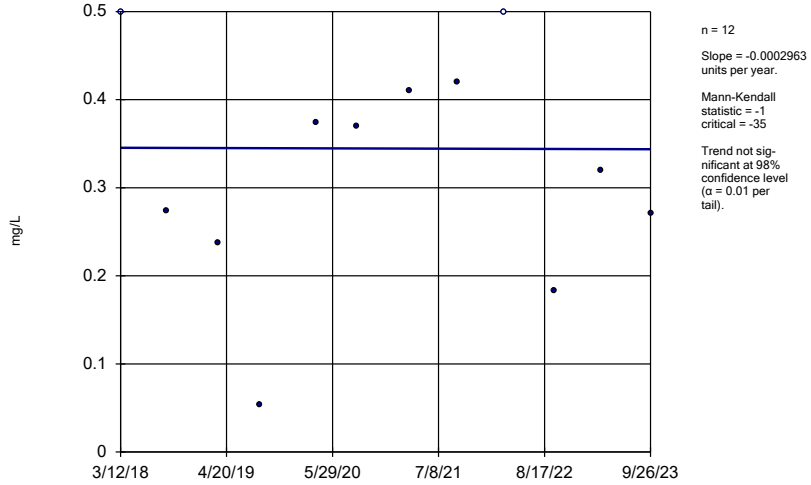


Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

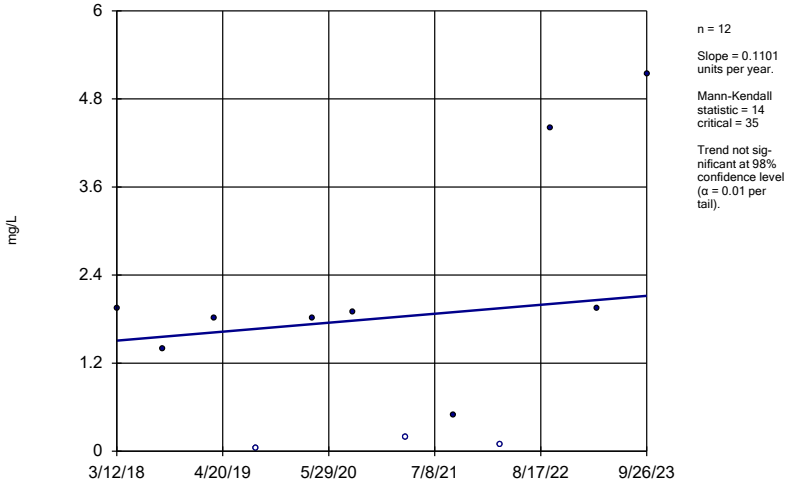


Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = 0.1101 units per year.

Mann-Kendall statistic = 14
critical = 35

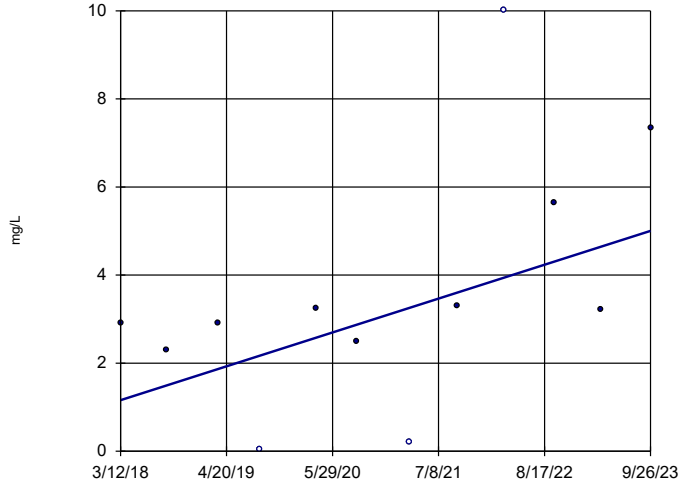
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0.6928 units per year.

Mann-Kendall statistic = 29
critical = 35

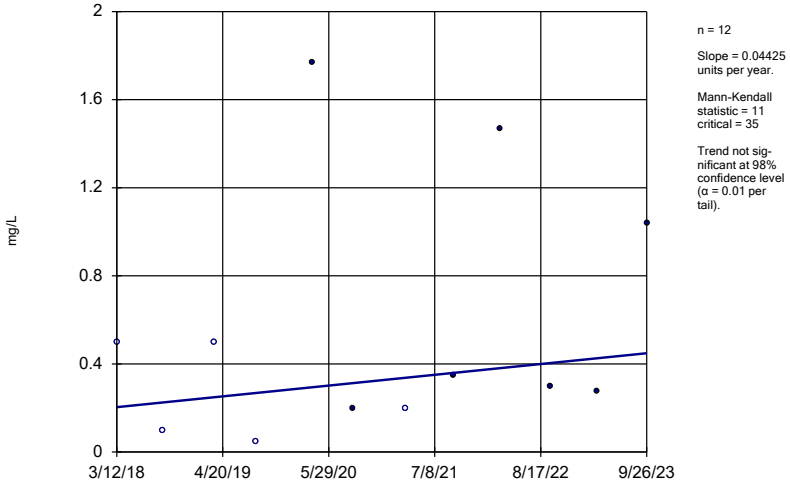
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.04425 units per year.

Mann-Kendall statistic = 11
critical = 35

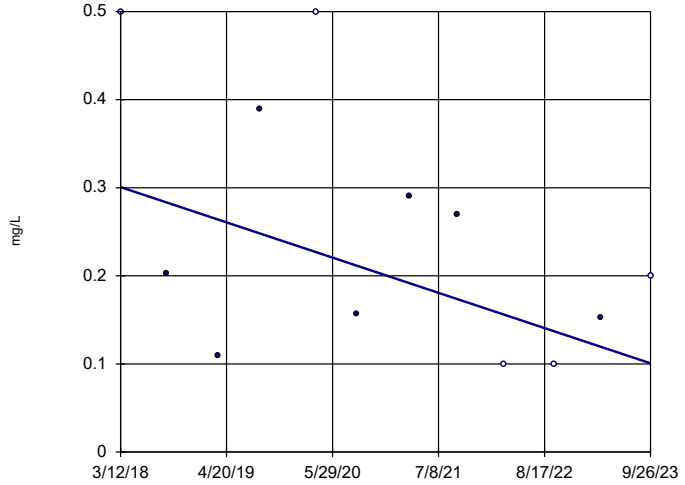
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = -0.03606 units per year.

Mann-Kendall statistic = -24
critical = -35

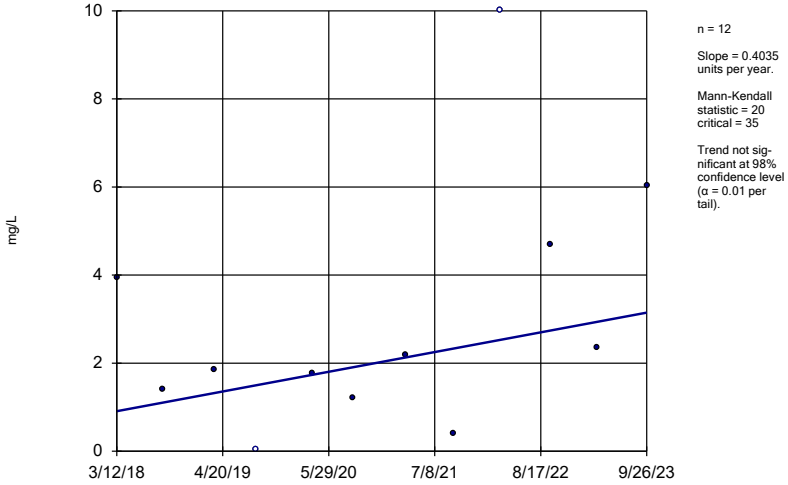
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.4035 units per year.

Mann-Kendall statistic = 20
critical = 35

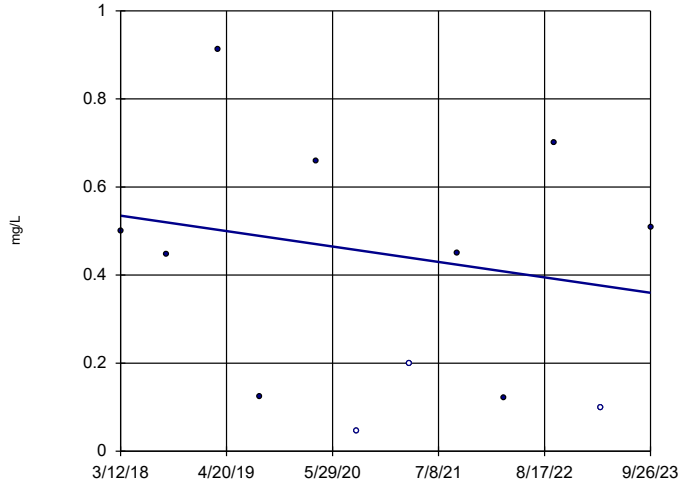
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.03159 units per year.

Mann-Kendall statistic = -8
critical = -35

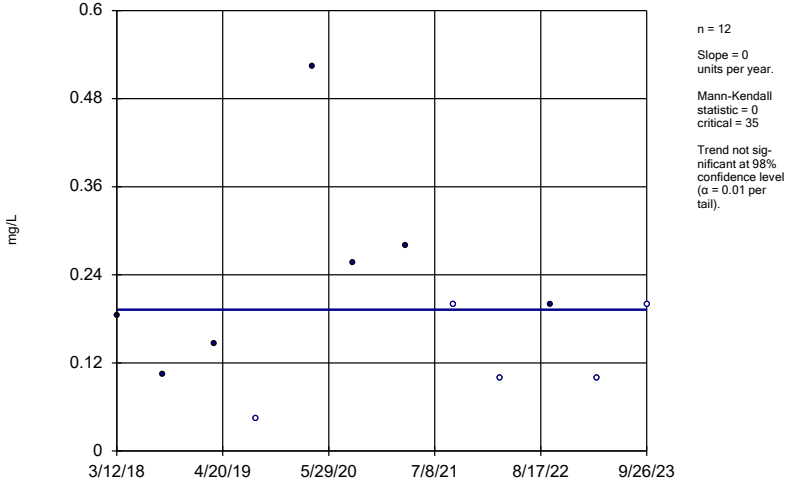
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 35

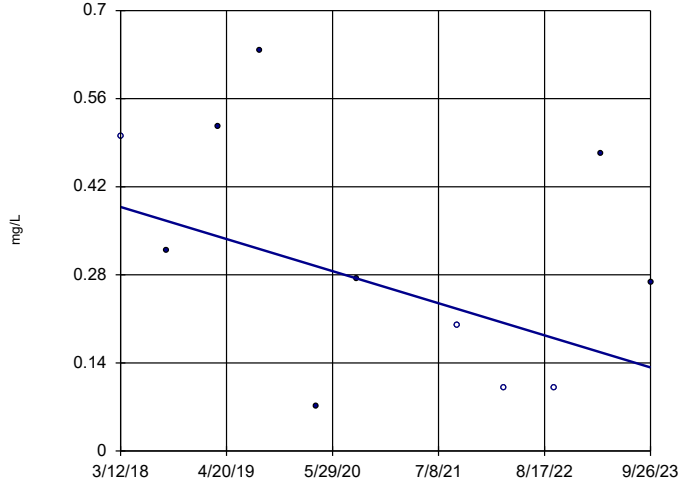
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.04598 units per year.

Mann-Kendall statistic = -16
critical = -31

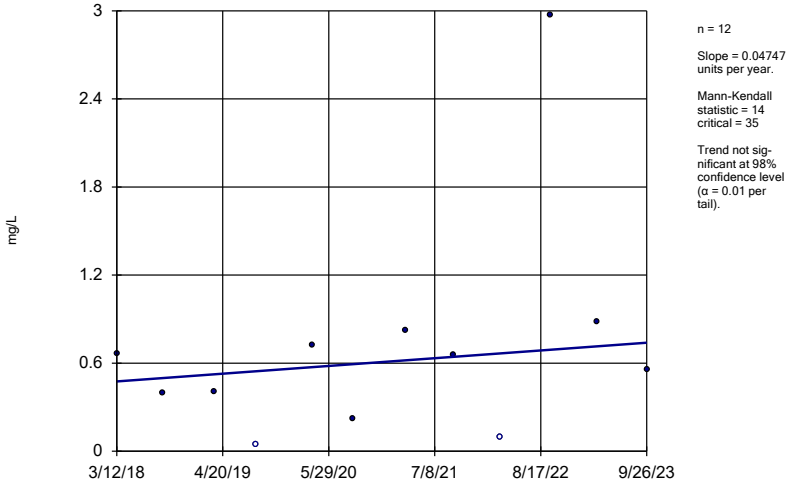
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0.04747 units per year.

Mann-Kendall statistic = 14
critical = 35

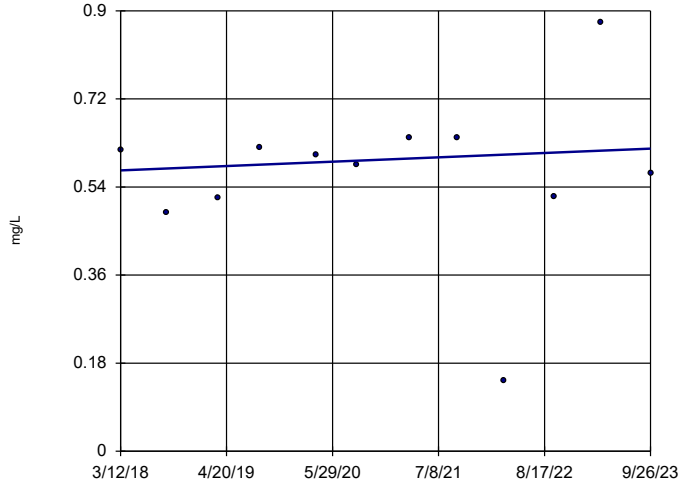
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.008047 units per year.

Mann-Kendall statistic = 9
critical = 35

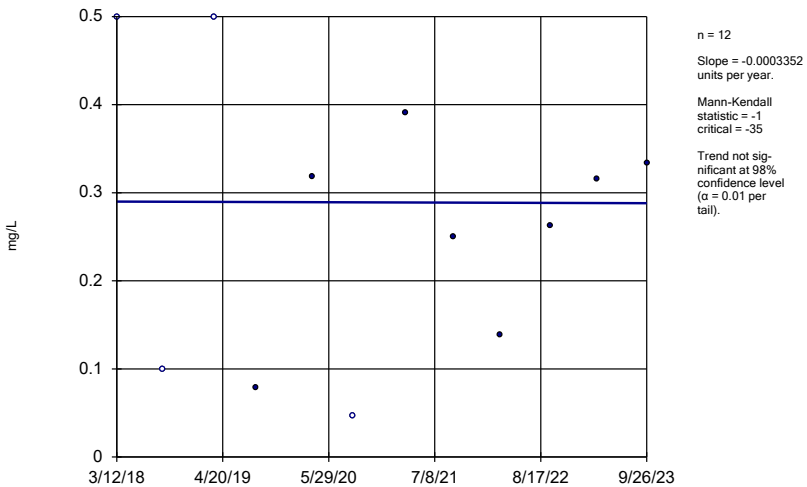
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = -0.0003352 units per year.

Mann-Kendall statistic = -1
critical = -35

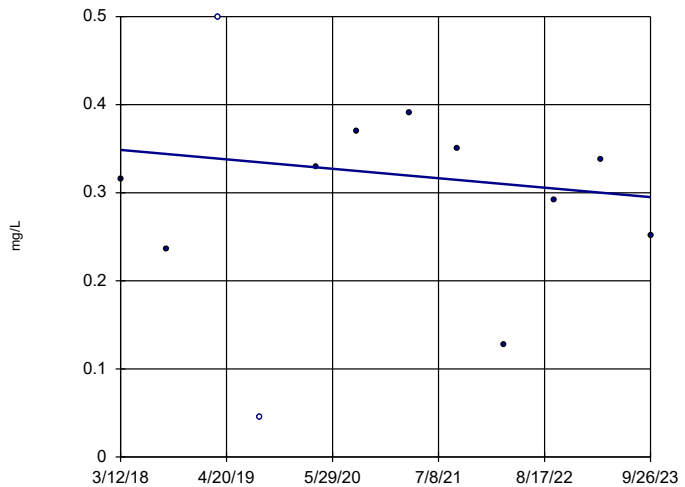
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.009662 units per year.

Mann-Kendall statistic = -4
critical = -35

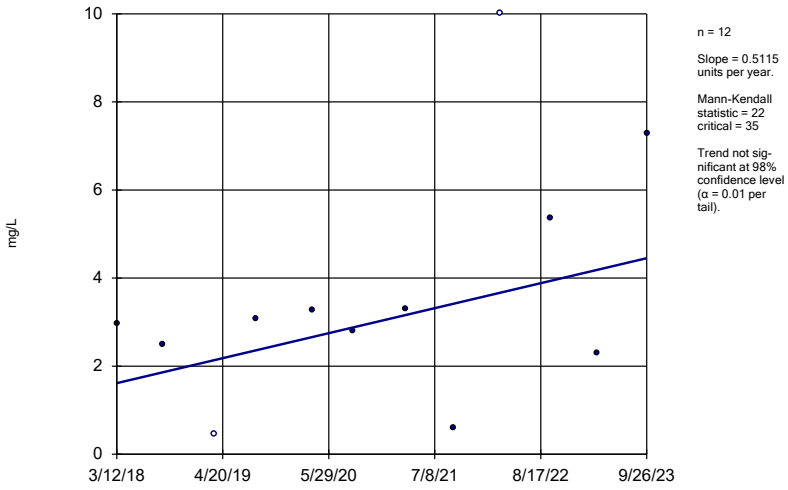
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.5115 units per year.

Mann-Kendall statistic = 22
critical = 35

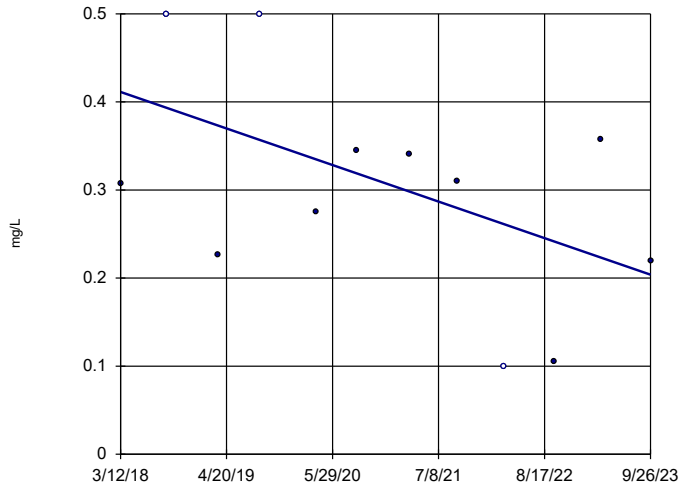
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = -0.03738 units per year.

Mann-Kendall statistic = -17
critical = -35

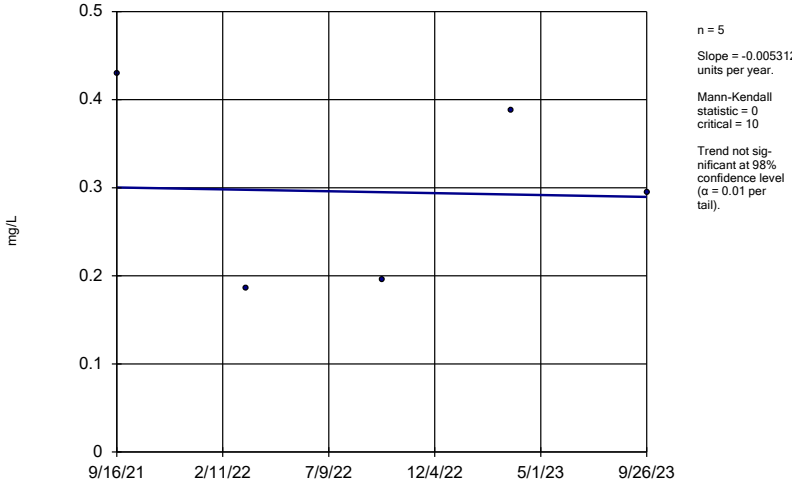
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20



n = 5

Slope = -0.005312 units per year.

Mann-Kendall statistic = 0
critical = 10

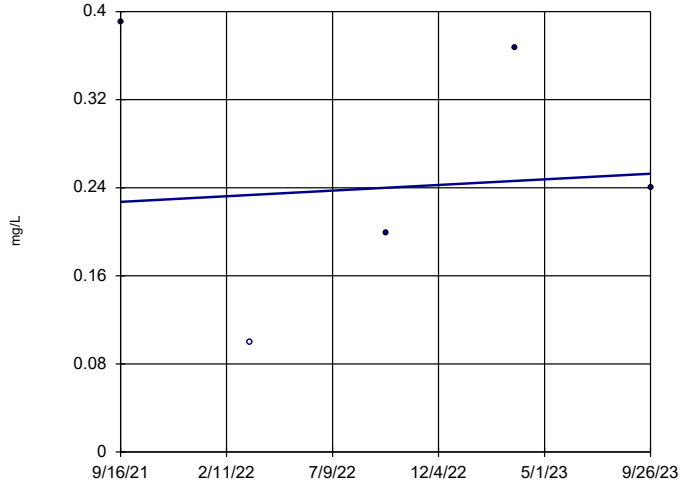
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0.01265 units per year.

Mann-Kendall statistic = 0
critical = 10

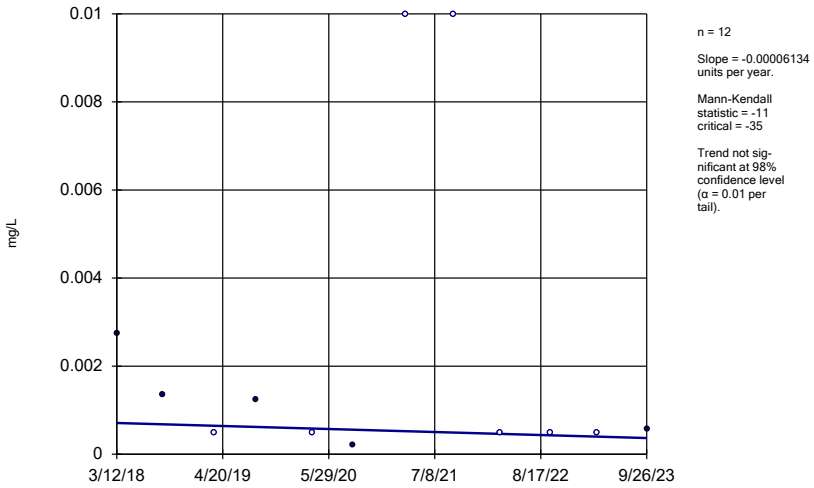
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.00006134 units per year.

Mann-Kendall statistic = -11
critical = -35

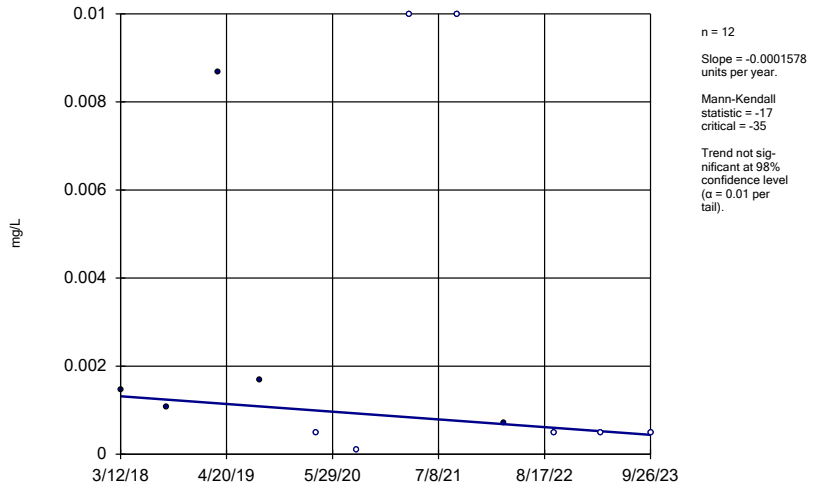
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -0.0001578 units per year.

Mann-Kendall statistic = -17
critical = -35

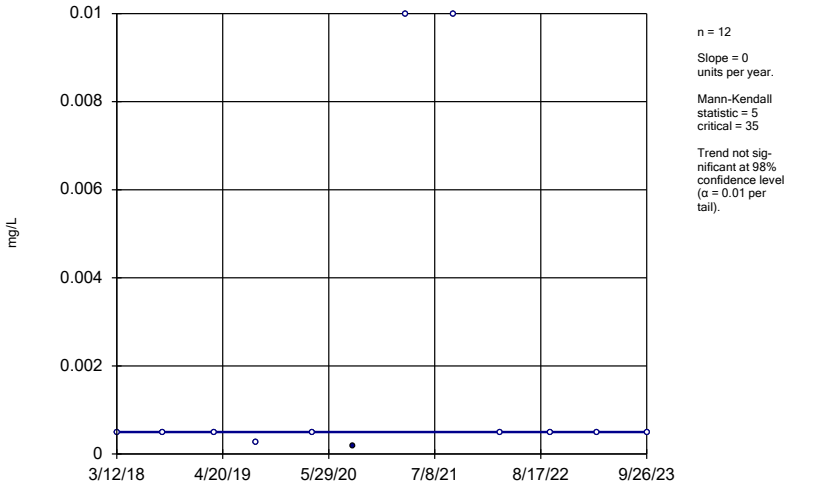
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

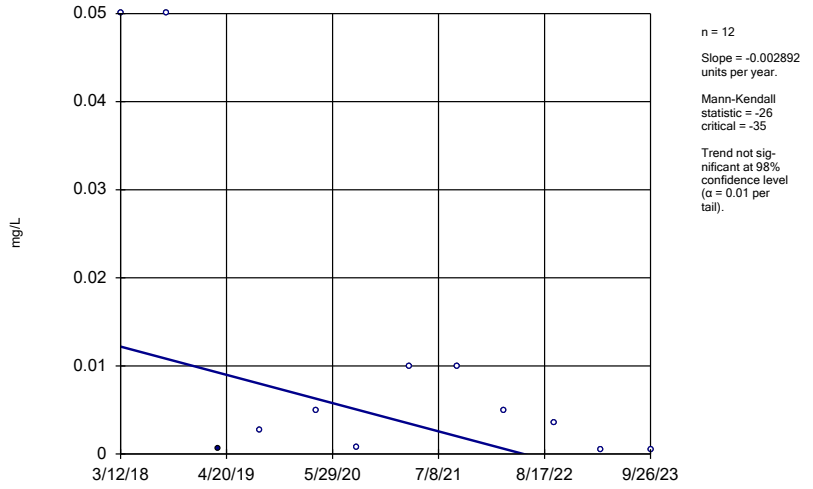
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.002892 units per year.

Mann-Kendall statistic = -26
critical = -35

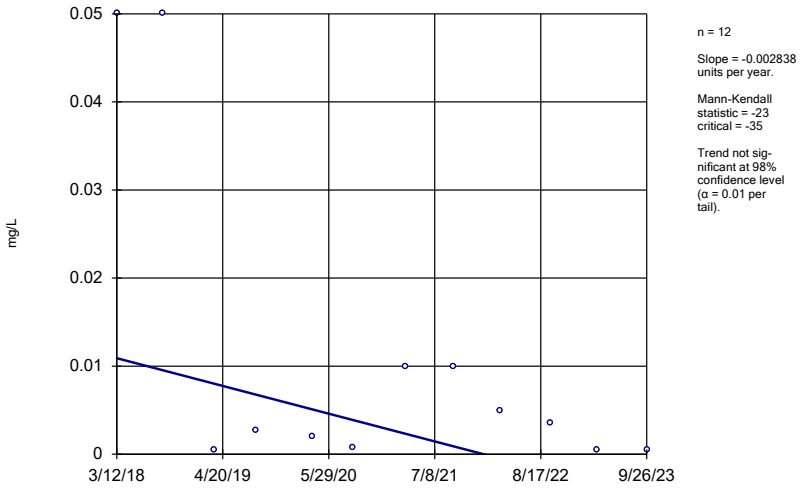
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.002838 units per year.

Mann-Kendall statistic = -23
critical = -35

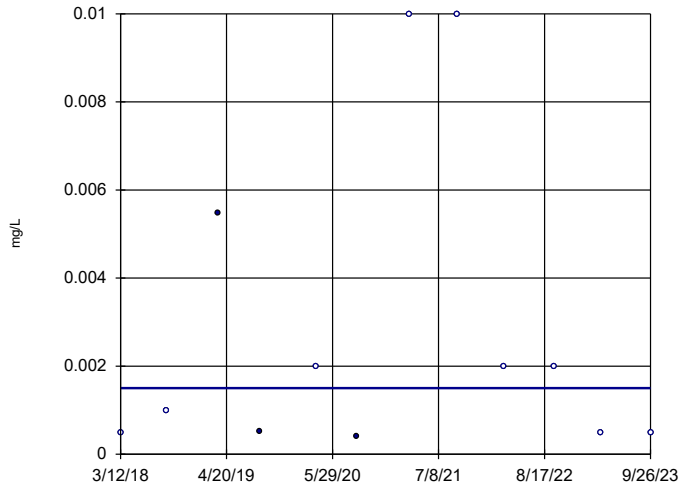
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

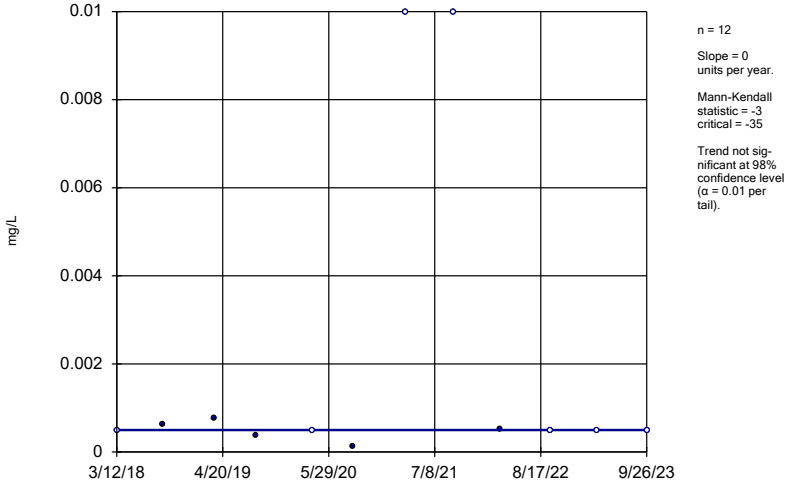
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -3
critical = -35

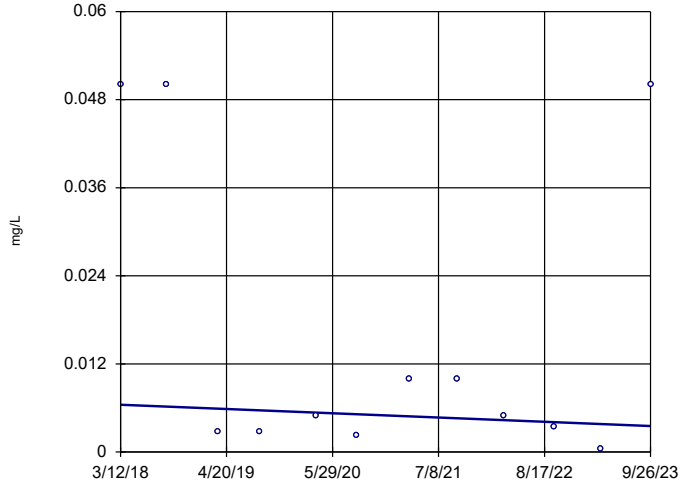
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.0005202 units per year.

Mann-Kendall statistic = -10
critical = -35

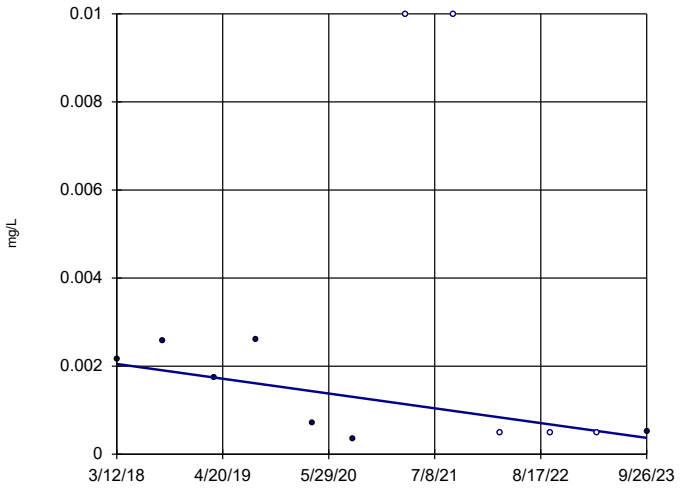
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.0003026 units per year.

Mann-Kendall statistic = -16
critical = -35

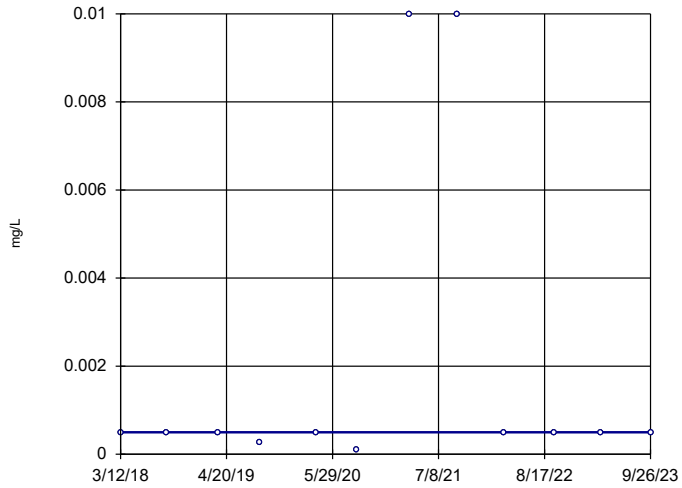
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

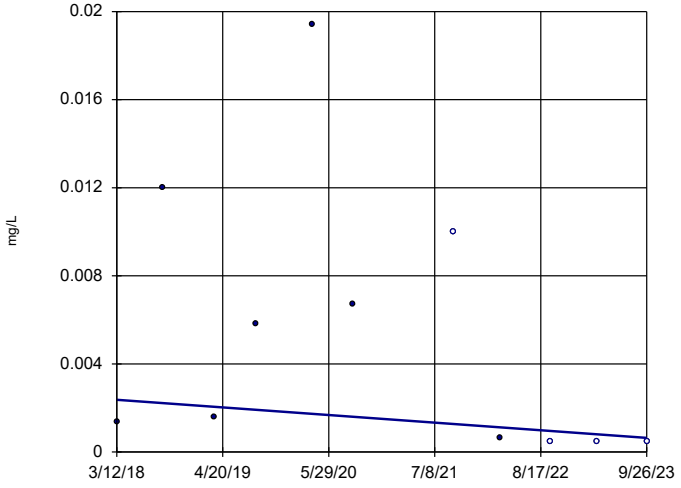
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.0003127 units per year.

Mann-Kendall statistic = -22
critical = -31

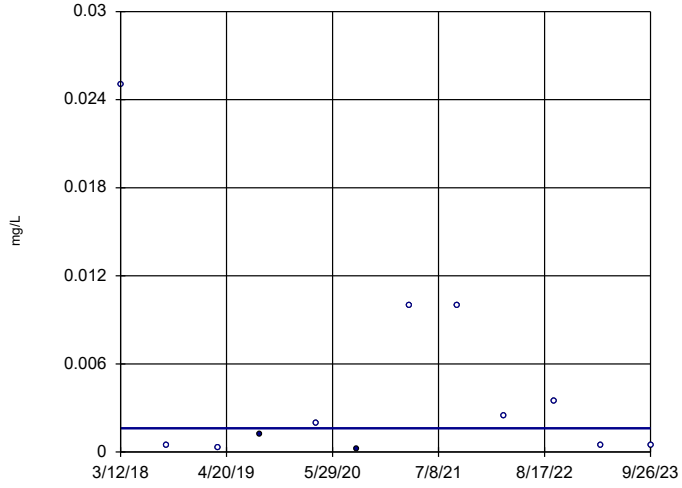
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -2
critical = -35

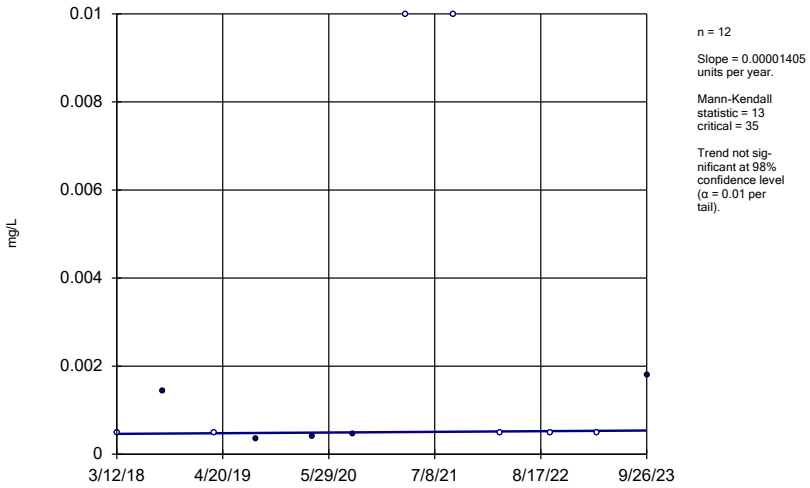
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.00001405 units per year.

Mann-Kendall statistic = 13
critical = 35

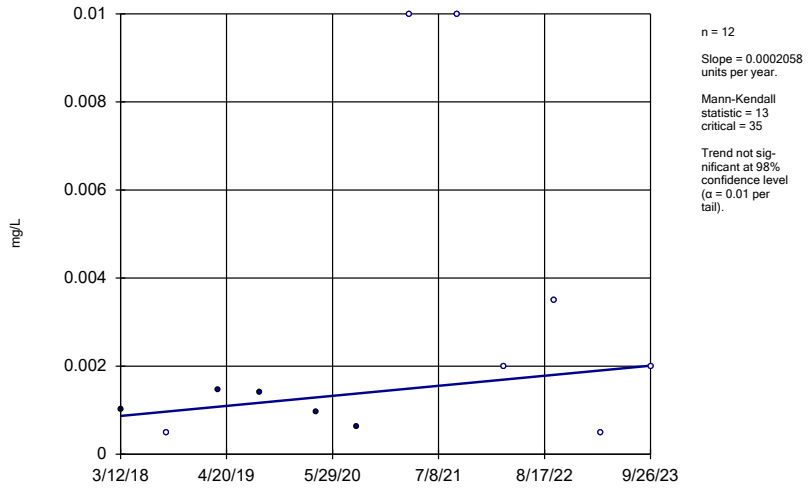
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0002058 units per year.

Mann-Kendall statistic = 13
critical = 35

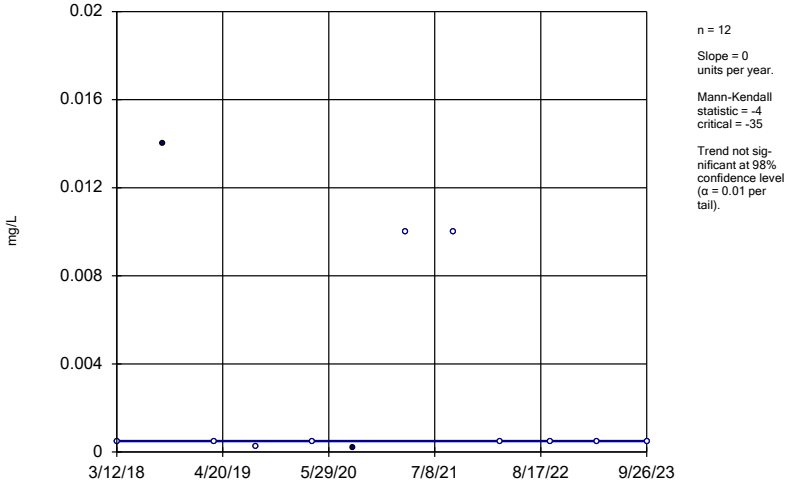
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -35

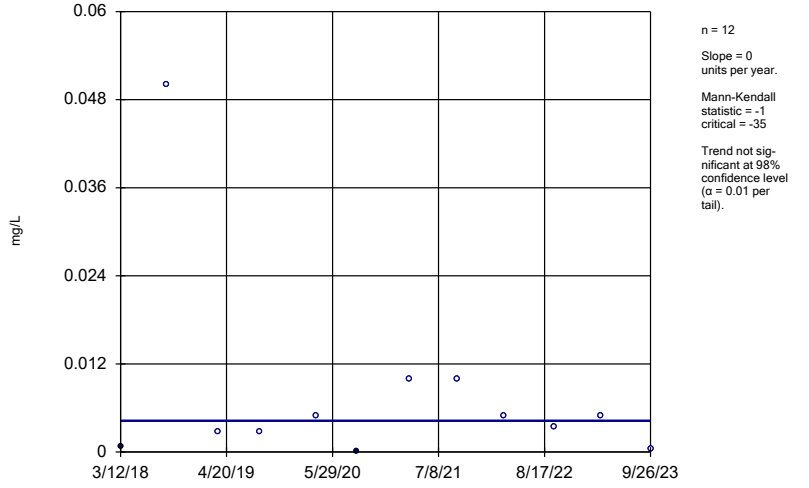
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

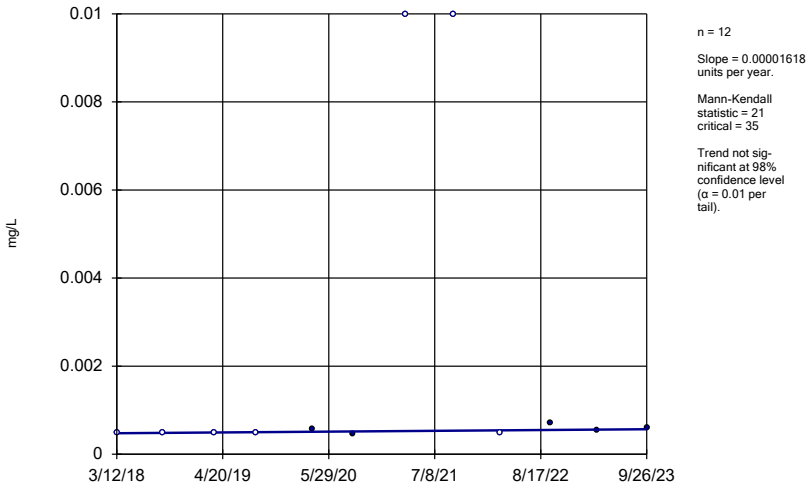
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.00001618 units per year.

Mann-Kendall statistic = 21
critical = 35

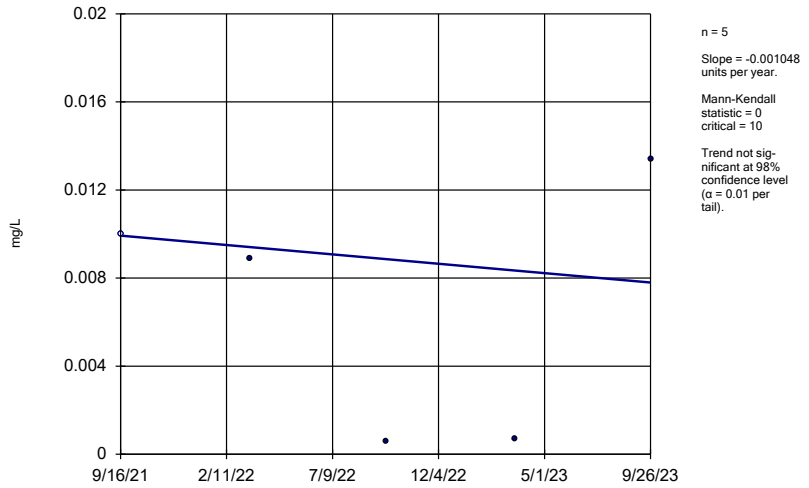
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = -0.001048 units per year.

Mann-Kendall statistic = 0
critical = 10

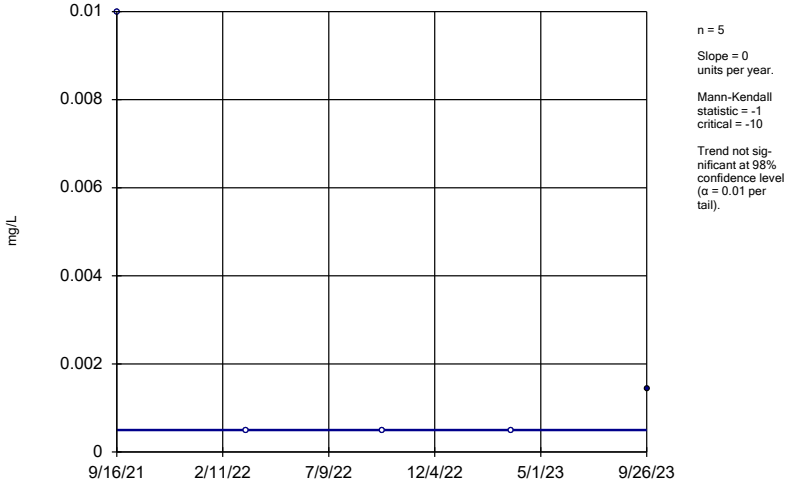
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -10

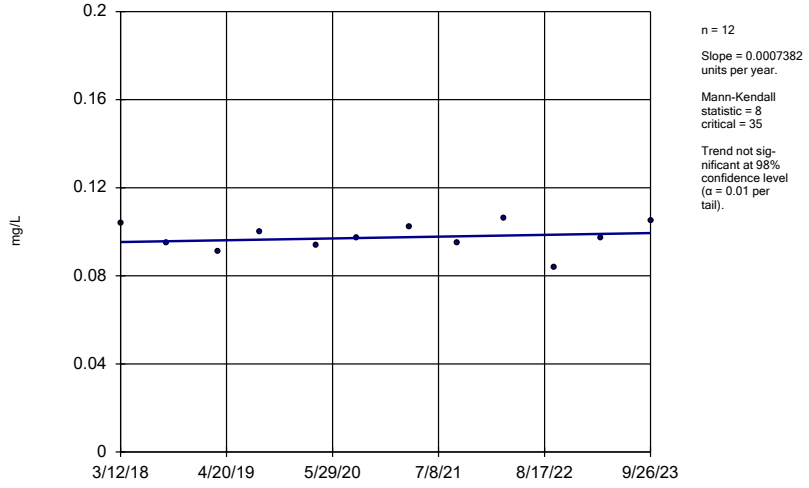
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lead Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A



n = 12

Slope = 0.0007382 units per year.

Mann-Kendall statistic = 8
critical = 35

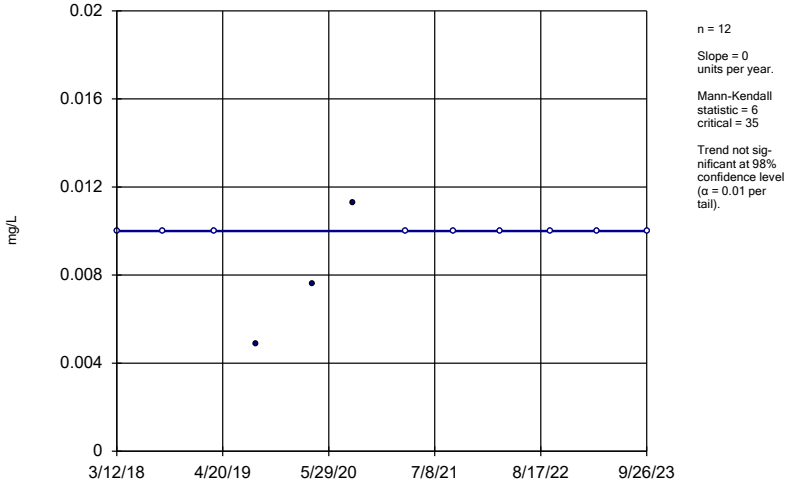
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

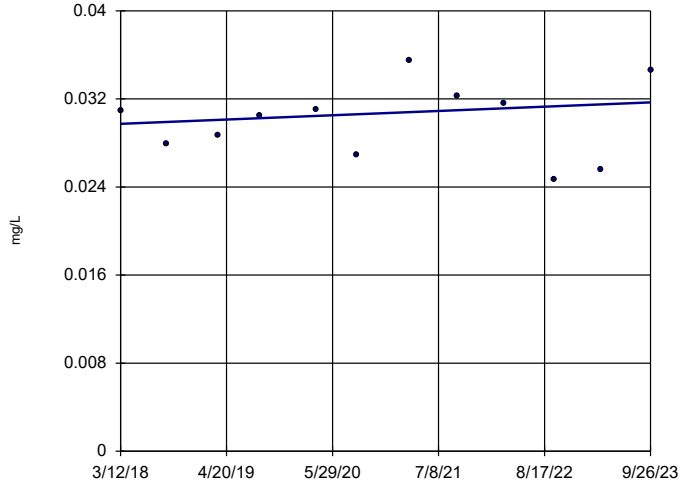
Constituent: Lithium Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0.0003513 units per year.

Mann-Kendall statistic = 6 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

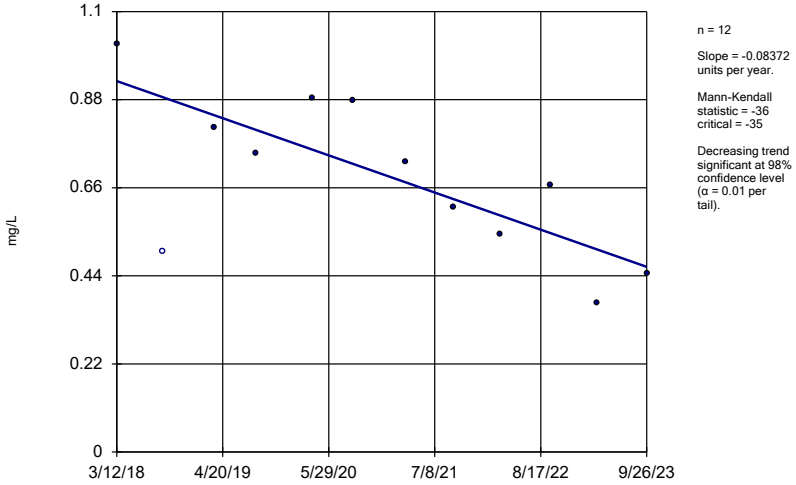
Constituent: Lithium Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.08372 units per year.

Mann-Kendall statistic = -36 critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

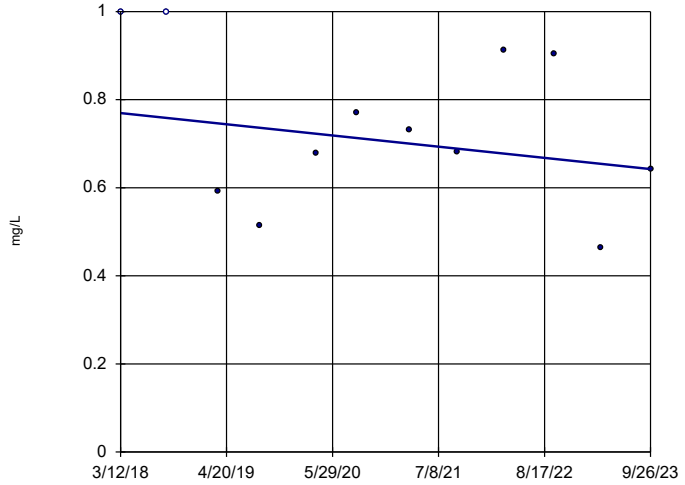
Constituent: Lithium Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.02293 units per year.

Mann-Kendall statistic = -13 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

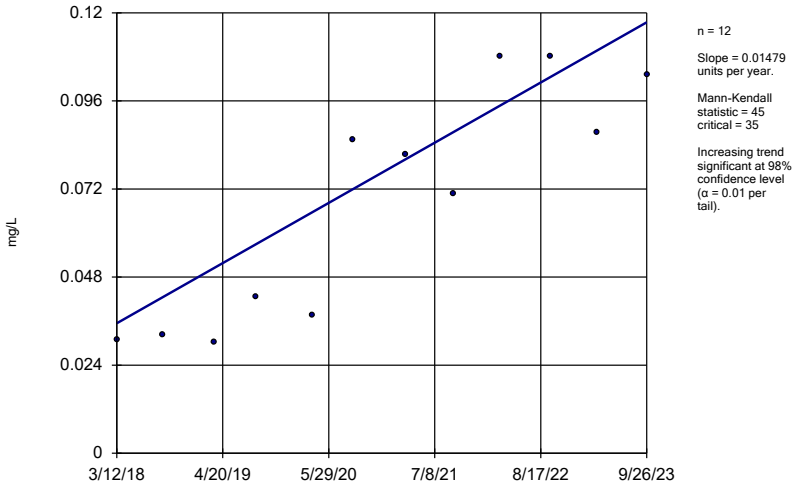
Constituent: Lithium Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-5



n = 12

Slope = 0.01479 units per year.

Mann-Kendall statistic = 45
critical = 35

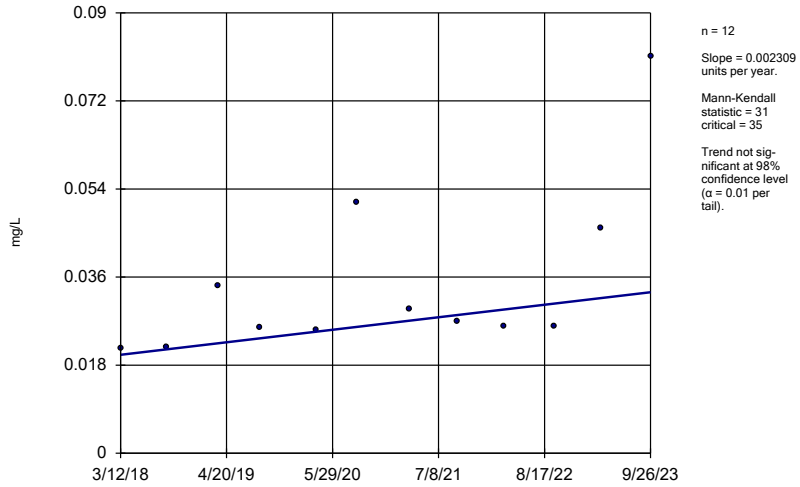
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.002309 units per year.

Mann-Kendall statistic = 31
critical = 35

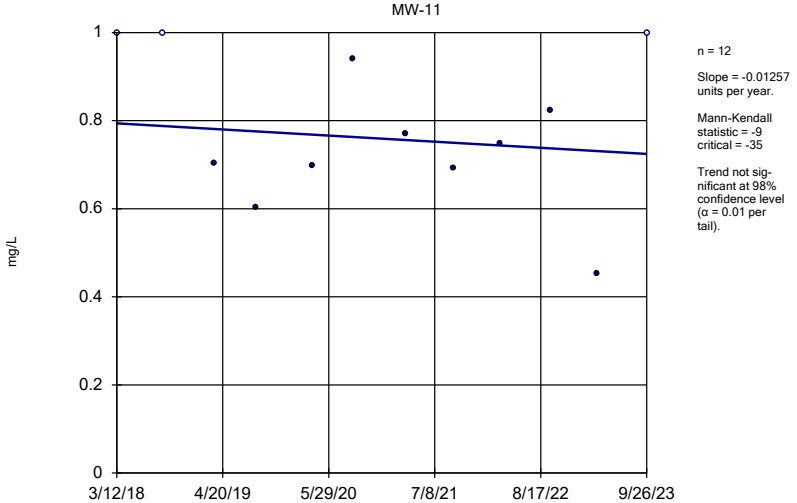
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:52 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.01257 units per year.

Mann-Kendall statistic = -9
critical = -35

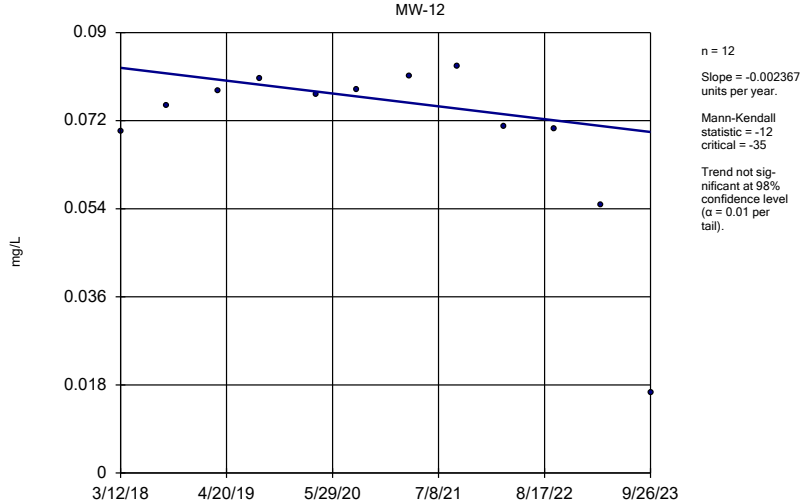
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = -0.002367 units per year.

Mann-Kendall statistic = -12
critical = -35

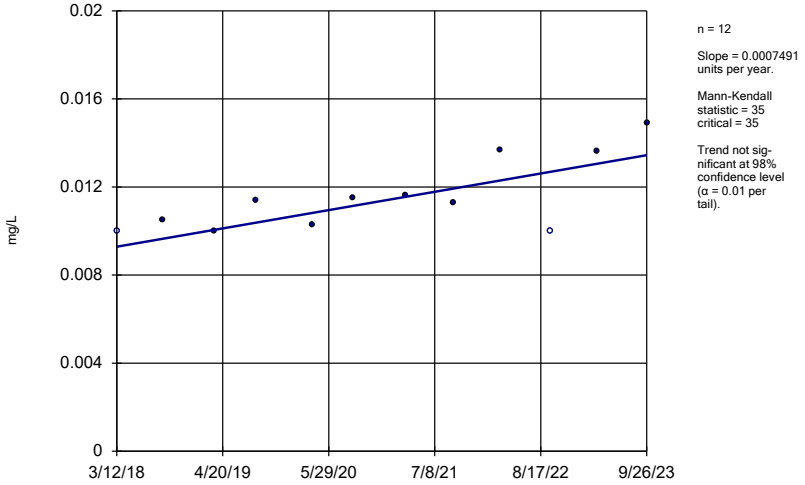
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0.0007491 units per year.

Mann-Kendall statistic = 35
critical = 35

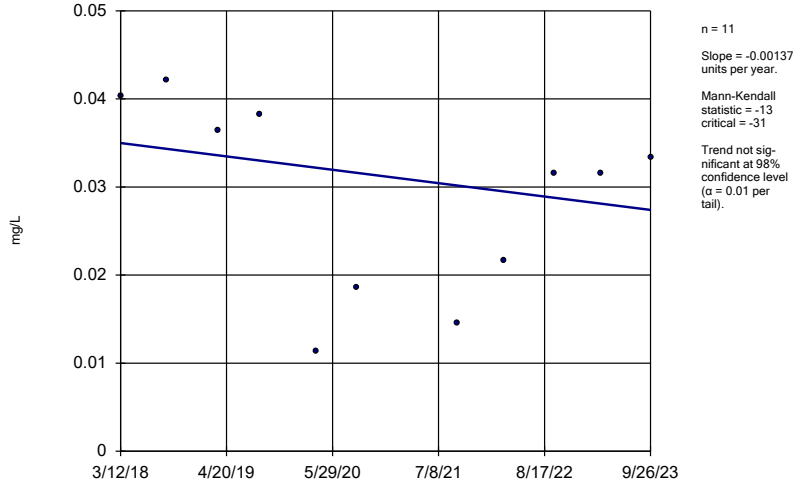
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.00137 units per year.

Mann-Kendall statistic = -13
critical = -31

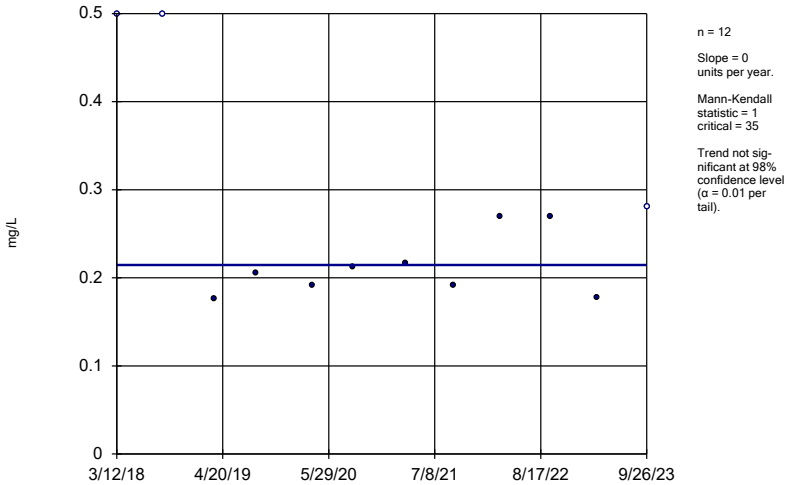
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 35

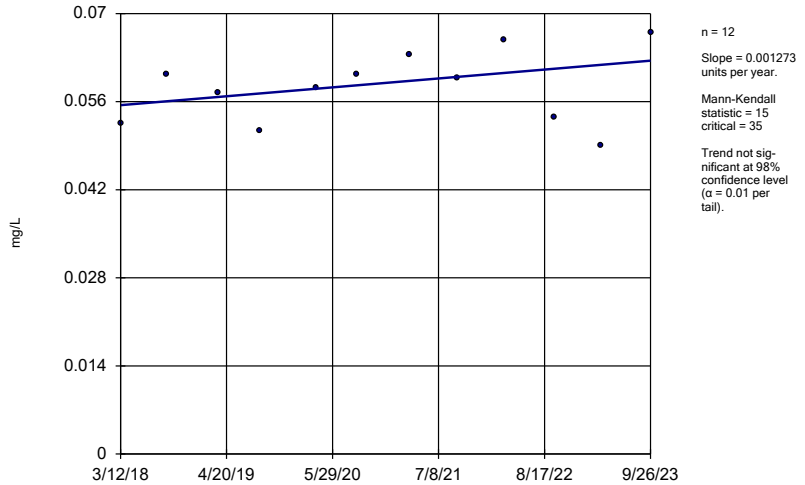
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.001273 units per year.

Mann-Kendall statistic = 15
critical = 35

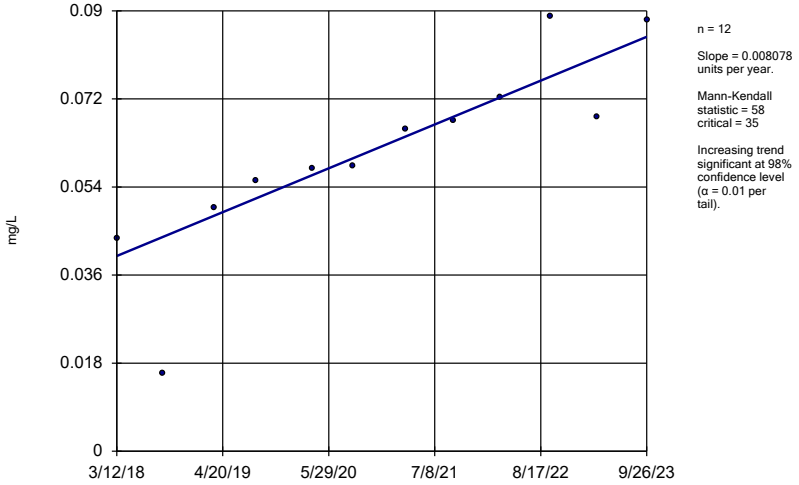
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16



n = 12

Slope = 0.008078 units per year.

Mann-Kendall statistic = 58
critical = 35

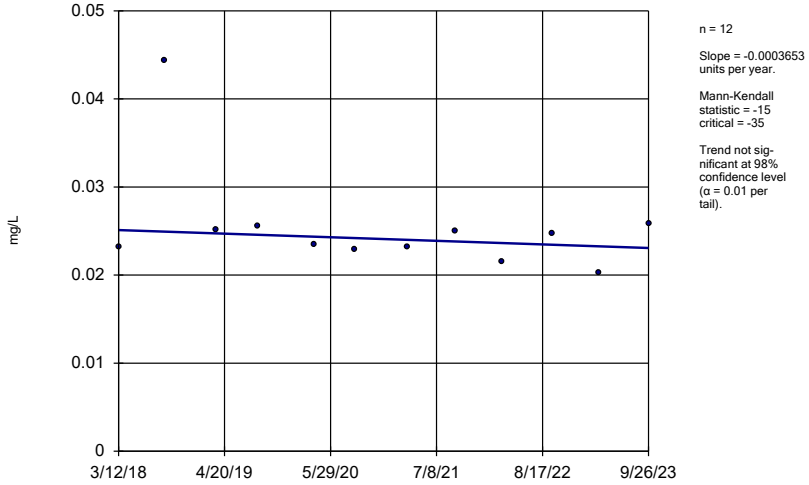
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.0003653 units per year.

Mann-Kendall statistic = -15
critical = -35

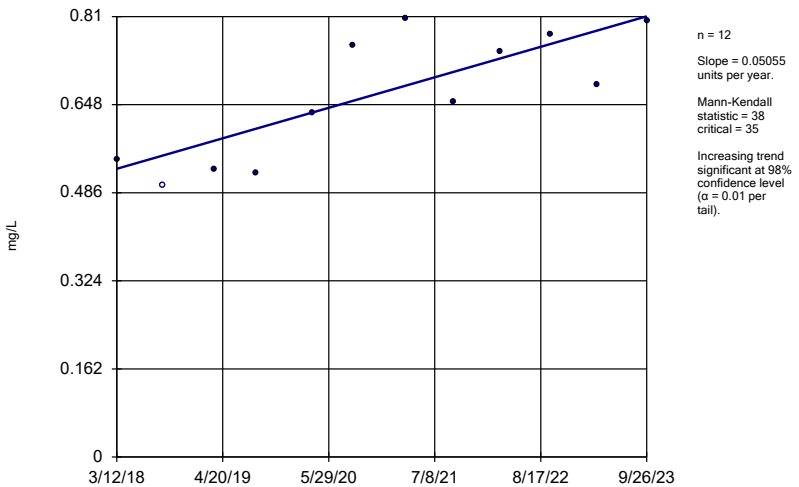
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.05055 units per year.

Mann-Kendall statistic = 38
critical = 35

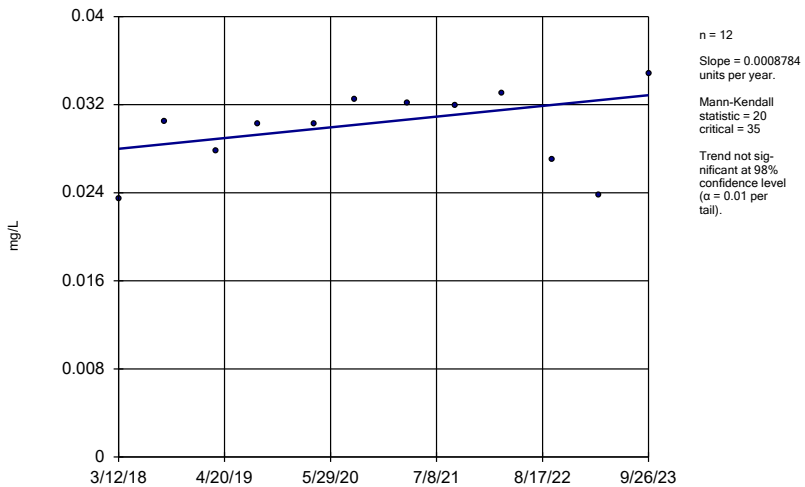
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.0008784 units per year.

Mann-Kendall statistic = 20
critical = 35

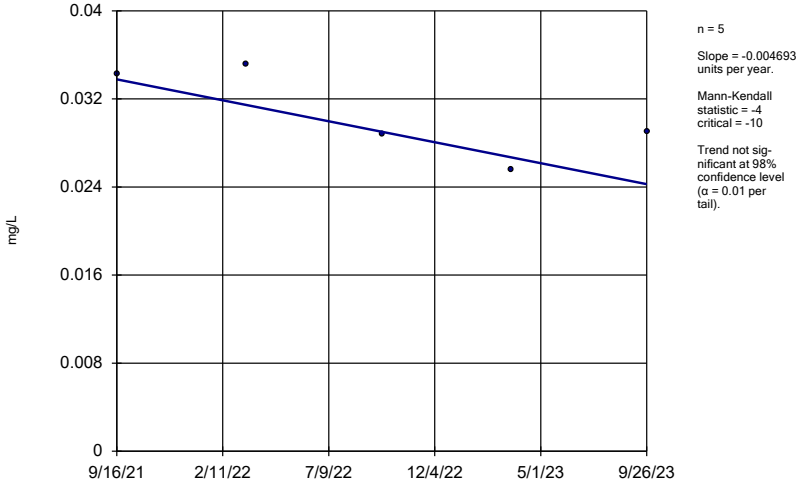
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-20



n = 5

Slope = -0.004693 units per year.

Mann-Kendall statistic = -4
critical = -10

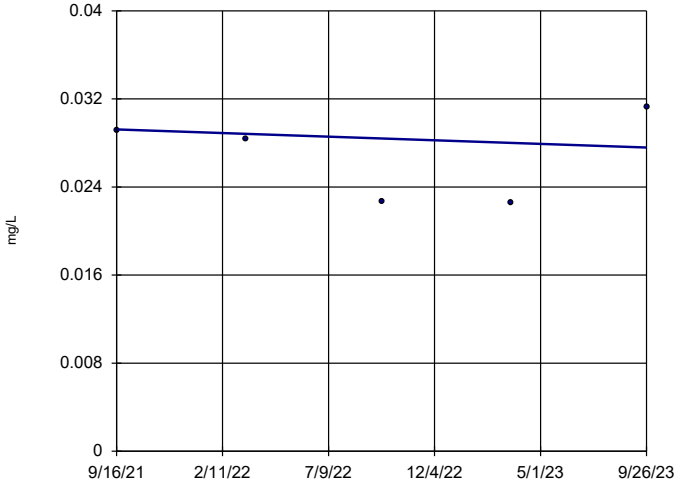
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-21



n = 5

Slope = -0.0008117 units per year.

Mann-Kendall statistic = -2
critical = -10

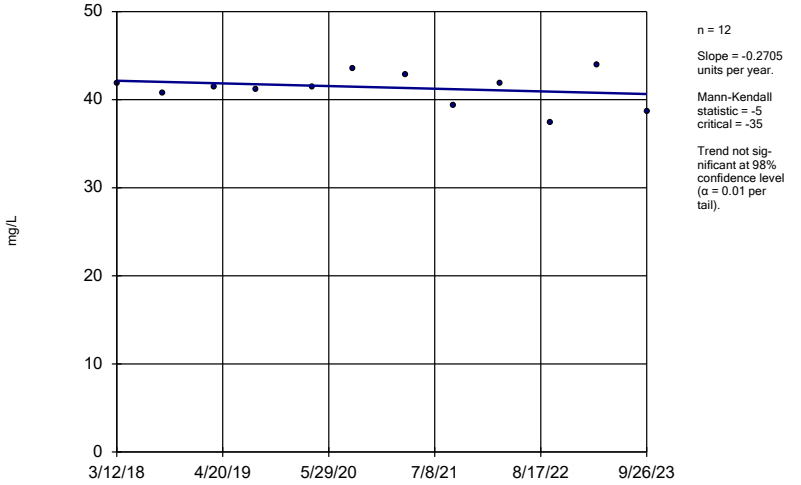
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Lithium Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.2705 units per year.

Mann-Kendall statistic = -5
critical = -35

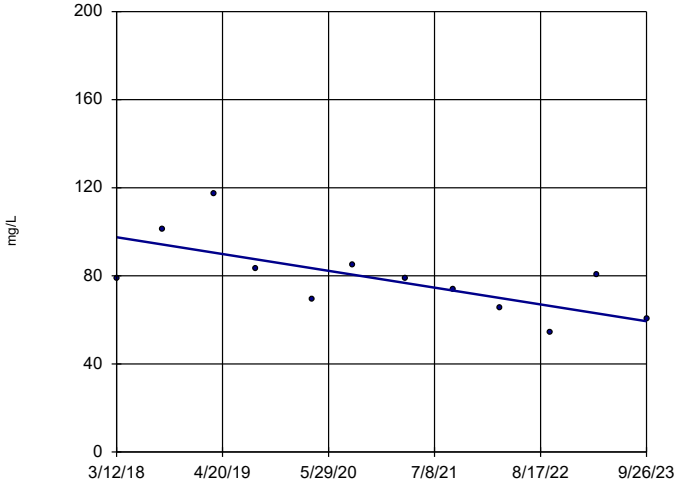
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -6.883 units per year.

Mann-Kendall statistic = -34
critical = -35

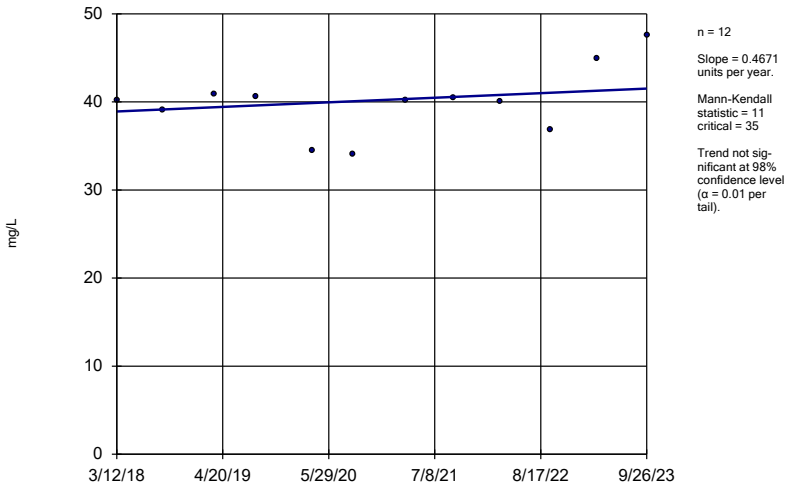
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L

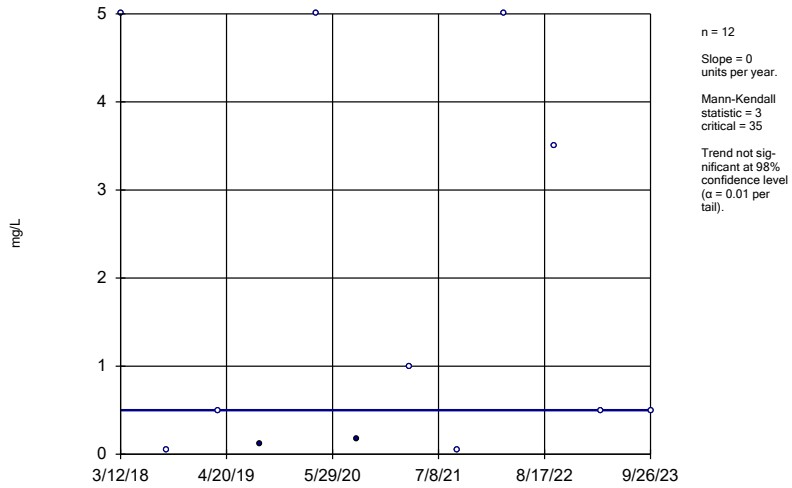


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4

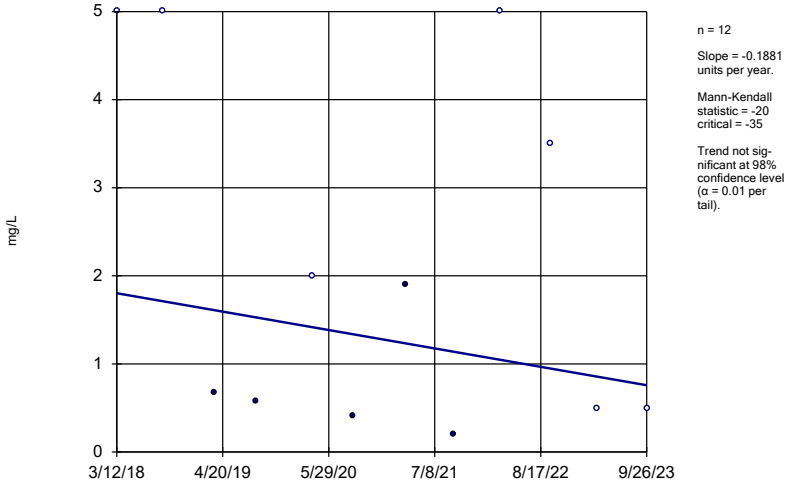


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L

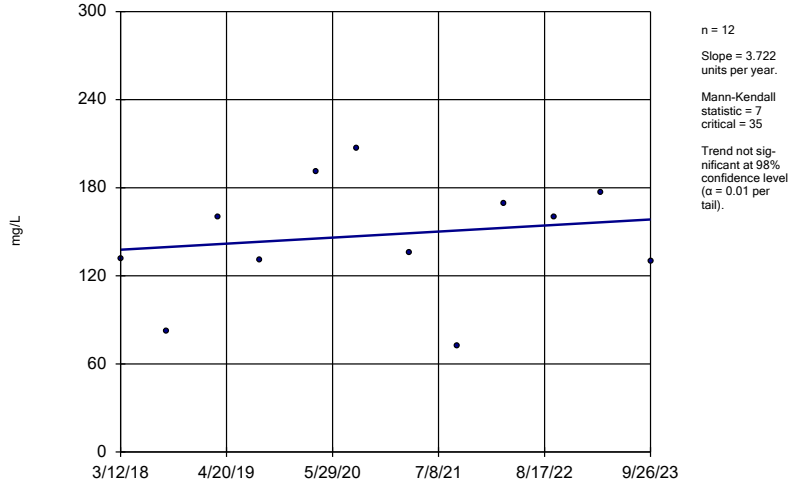


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-5

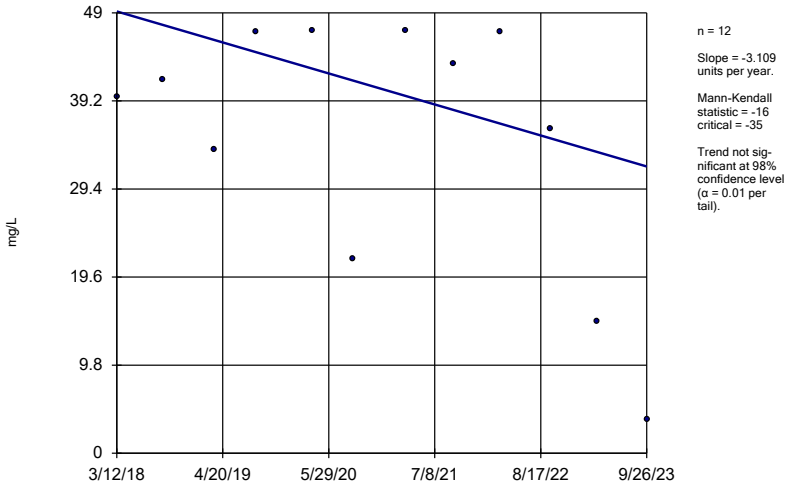


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = -3.109 units per year.

Mann-Kendall statistic = -16
critical = -35

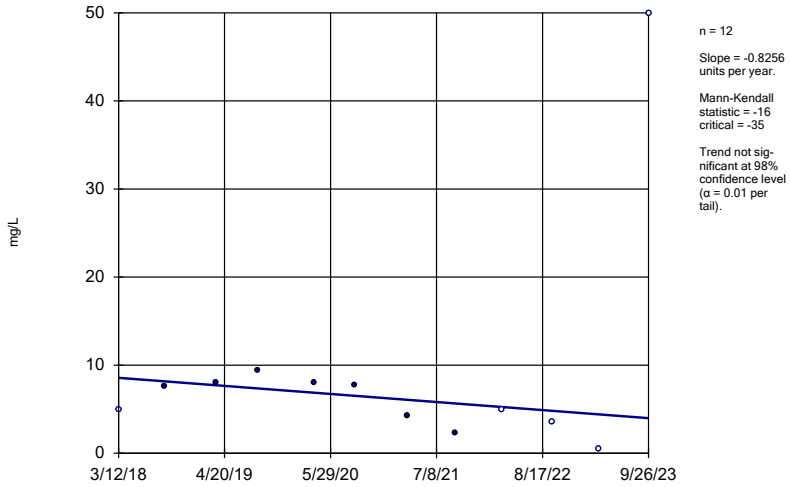
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.8256 units per year.

Mann-Kendall statistic = -16
critical = -35

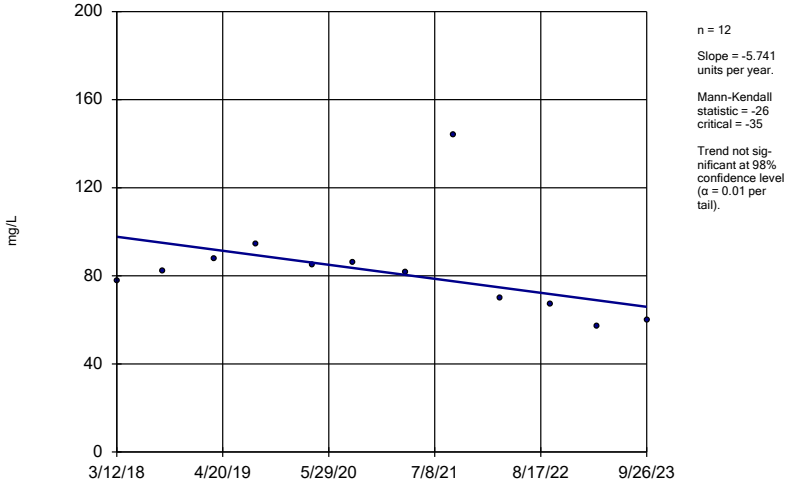
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = -5.741 units per year.

Mann-Kendall statistic = -26
critical = -35

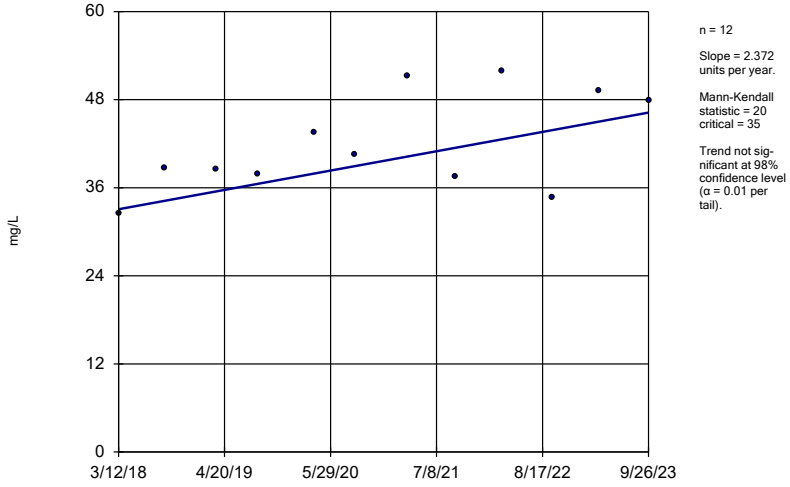
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-2A



n = 12

Slope = 2.372 units per year.

Mann-Kendall statistic = 20
critical = 35

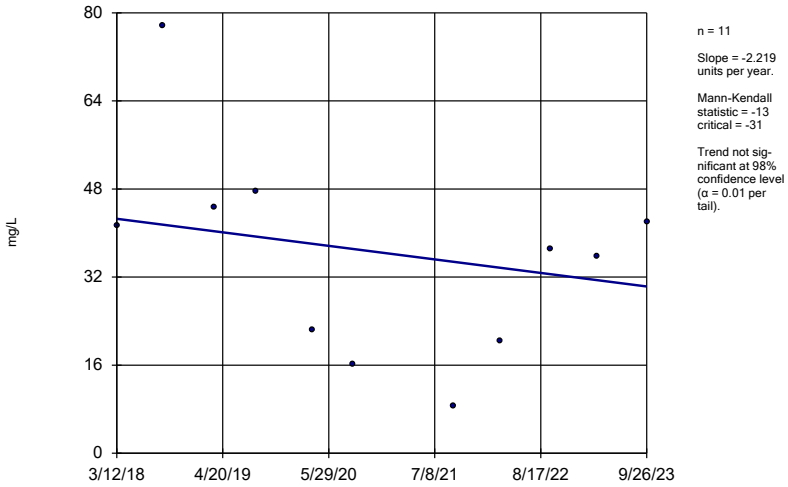
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -2.219 units per year.

Mann-Kendall statistic = -13
critical = -31

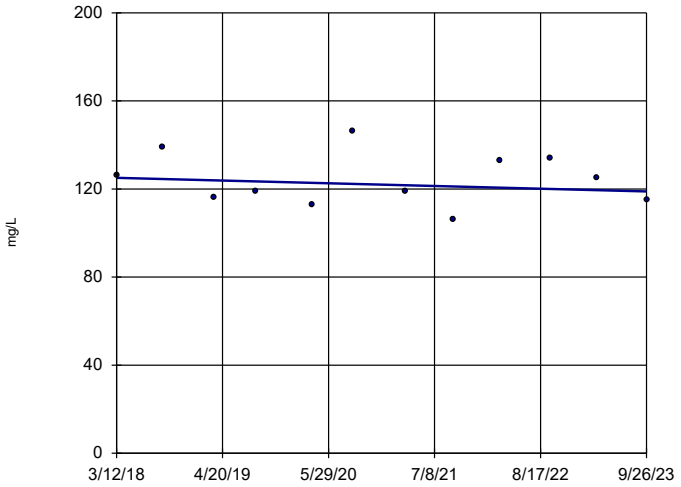
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-14



n = 12

Slope = -1.106 units per year.

Mann-Kendall statistic = -7
critical = -35

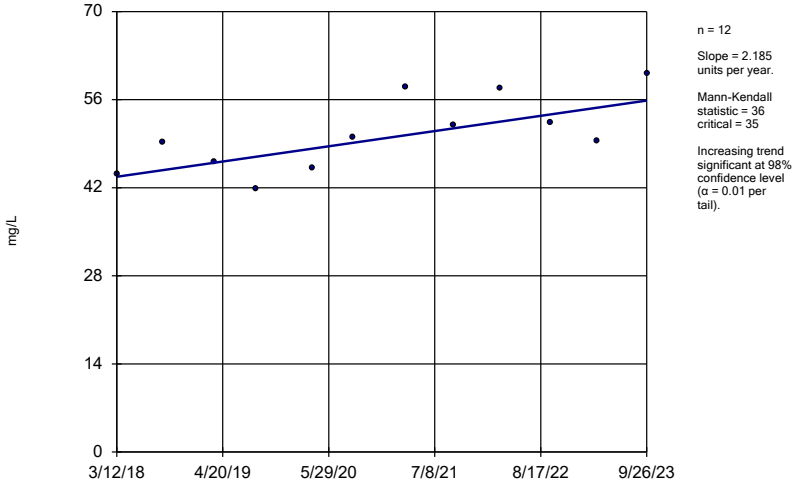
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 2.185 units per year.

Mann-Kendall statistic = 36
critical = 35

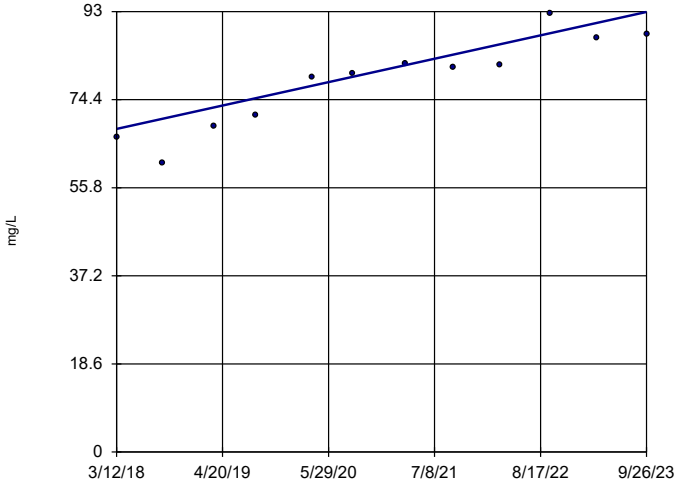
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16



n = 12

Slope = 4.451 units per year.

Mann-Kendall statistic = 56
critical = 35

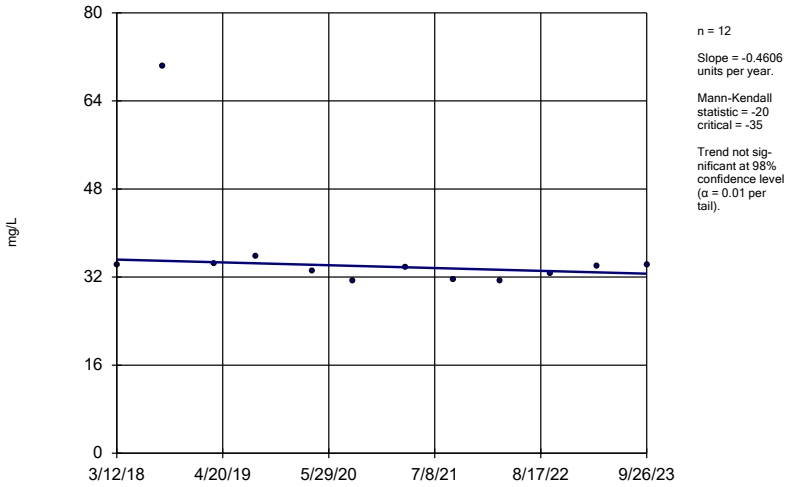
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16L

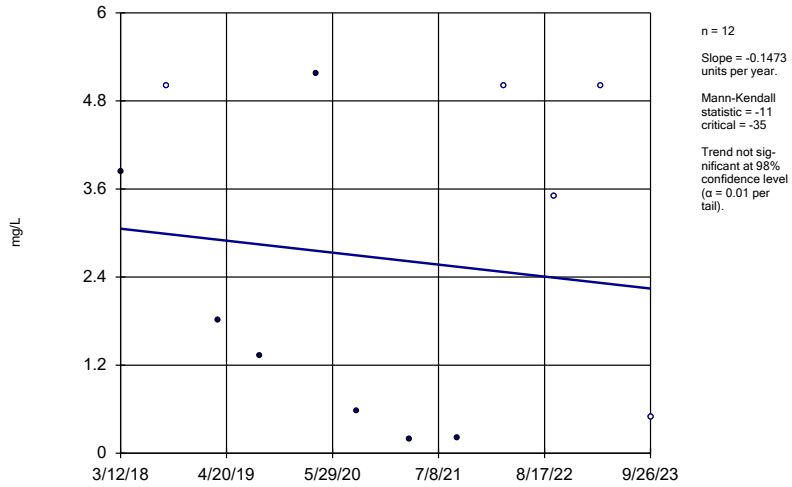


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18

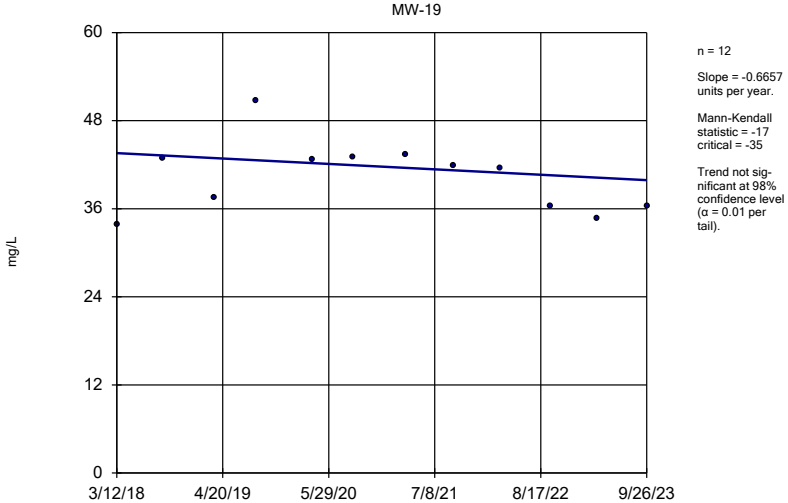


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19

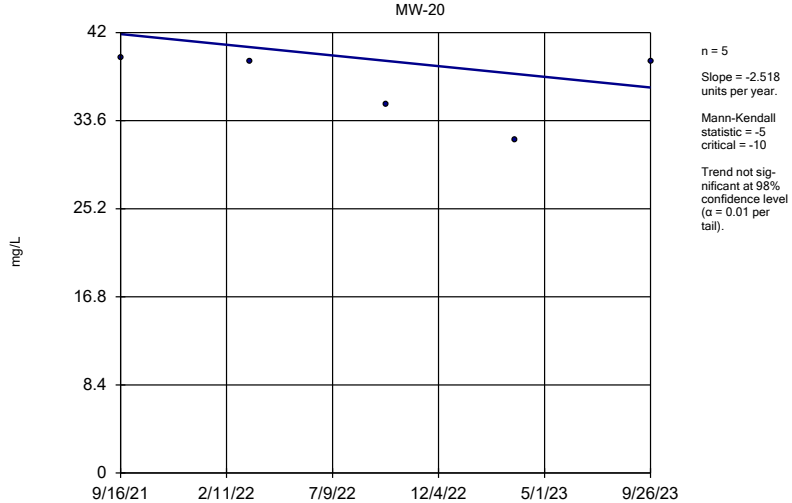


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20

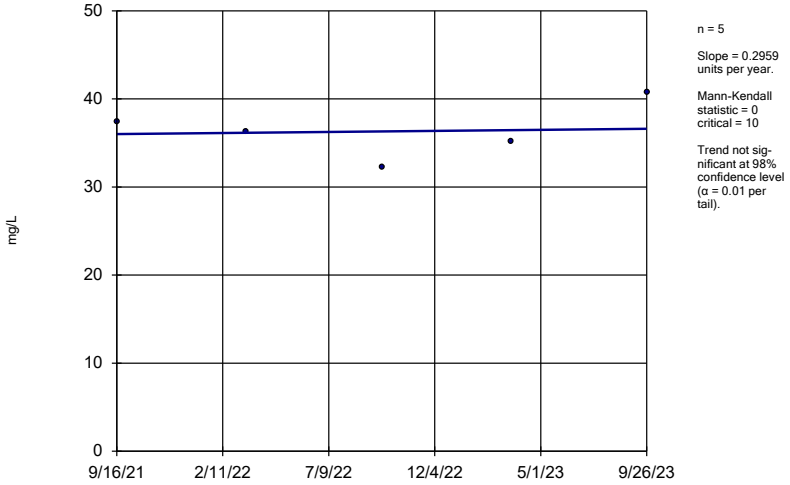


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21

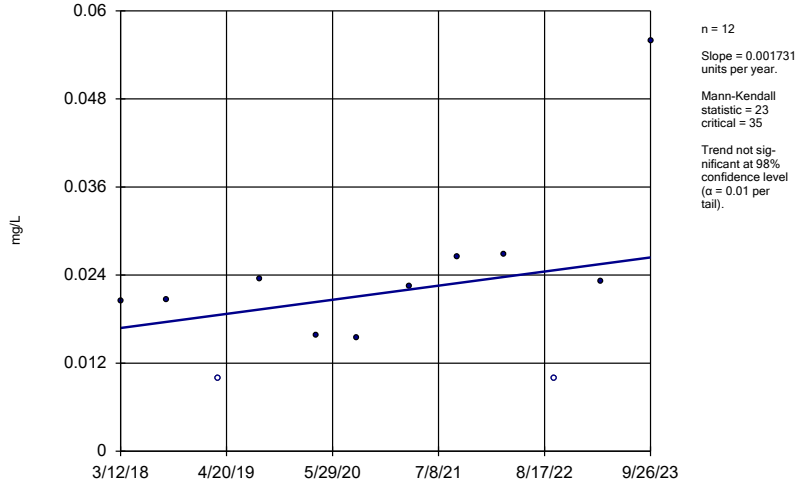


Constituent: Magnesium Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

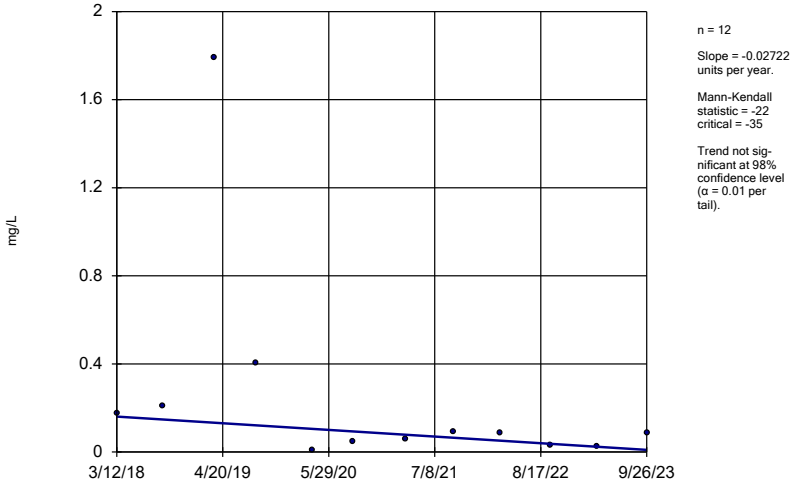


Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1B (bg)

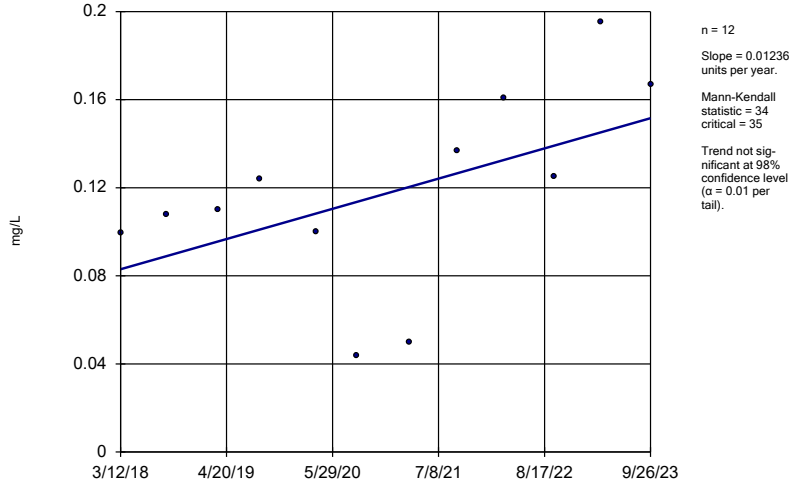


Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L

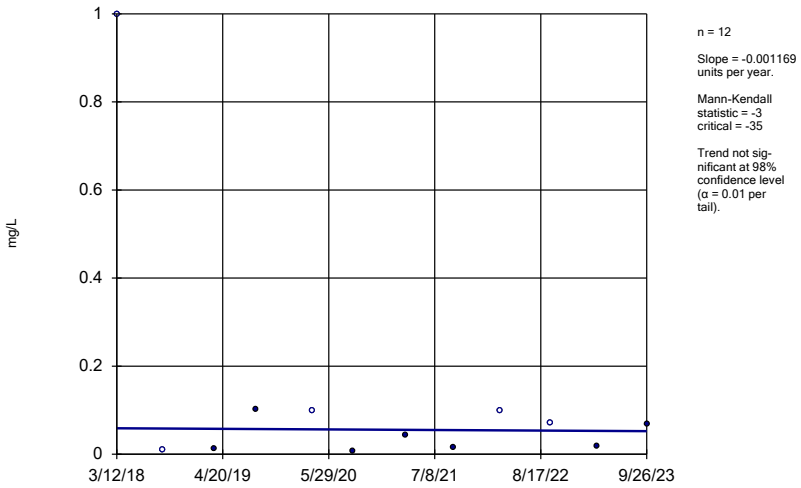


Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.001169 units per year.

Mann-Kendall statistic = -3
critical = -35

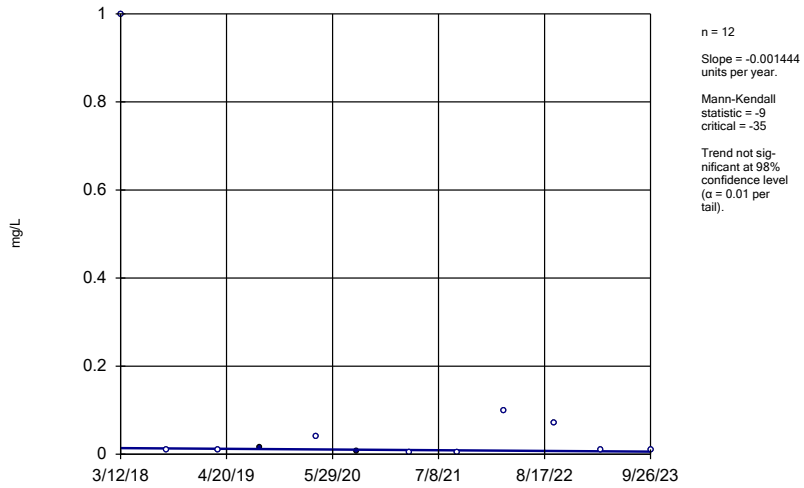
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.001444 units per year.

Mann-Kendall statistic = -9
critical = -35

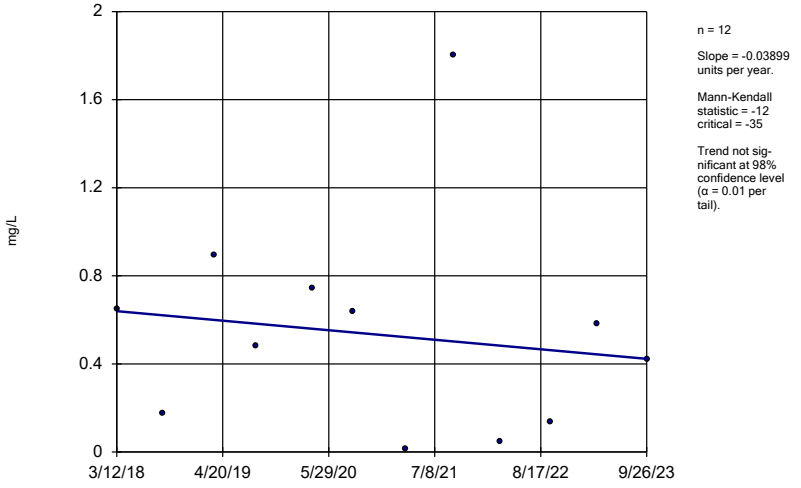
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-5



n = 12

Slope = -0.03899 units per year.

Mann-Kendall statistic = -12
critical = -35

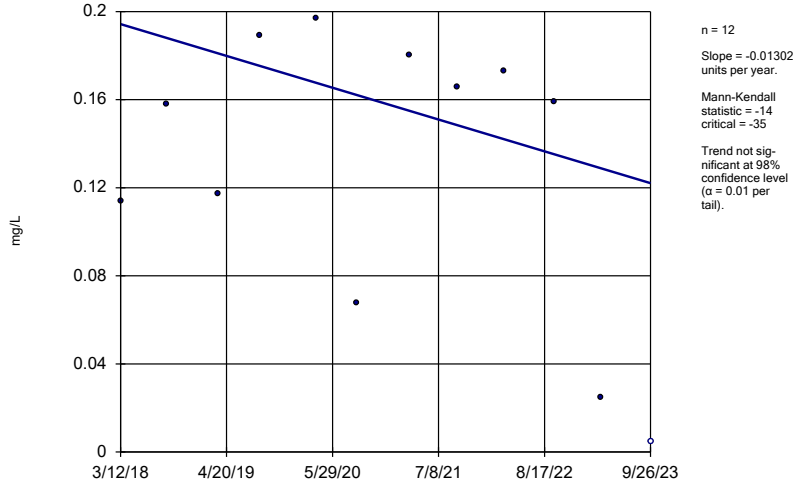
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = -0.01302 units per year.

Mann-Kendall statistic = -14
critical = -35

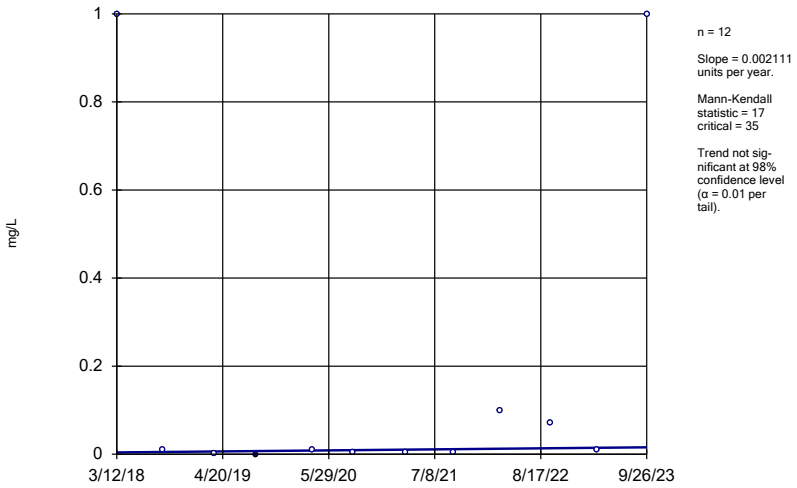
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.002111 units per year.

Mann-Kendall statistic = 17
critical = 35

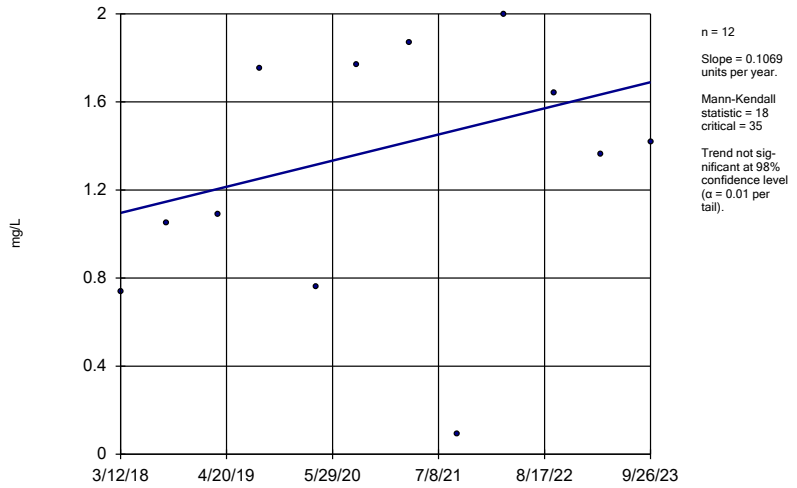
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-12



n = 12

Slope = 0.1069 units per year.

Mann-Kendall statistic = 18
critical = 35

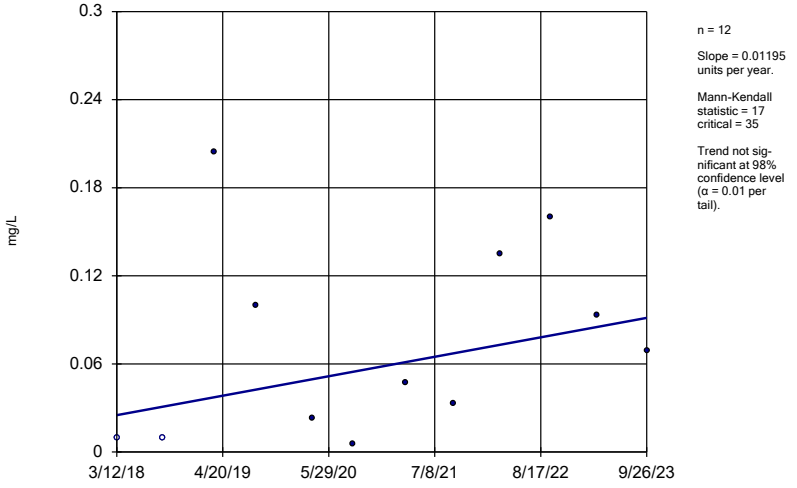
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0.01195 units per year.

Mann-Kendall statistic = 17
critical = 35

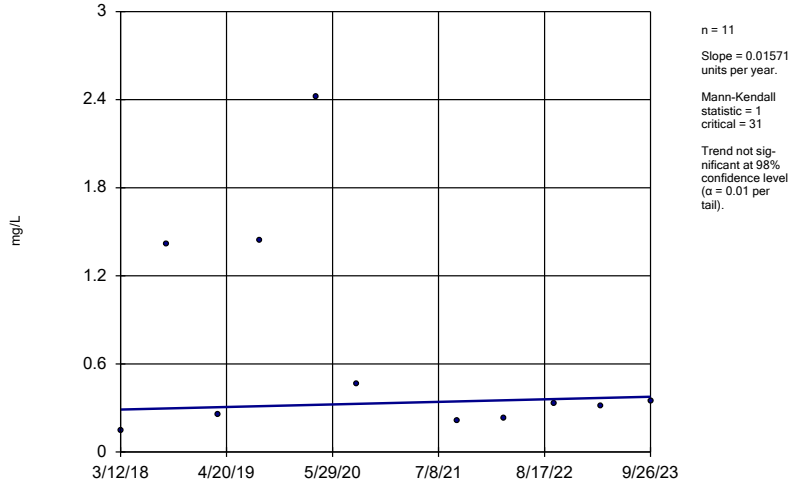
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0.01571 units per year.

Mann-Kendall statistic = 1
critical = 31

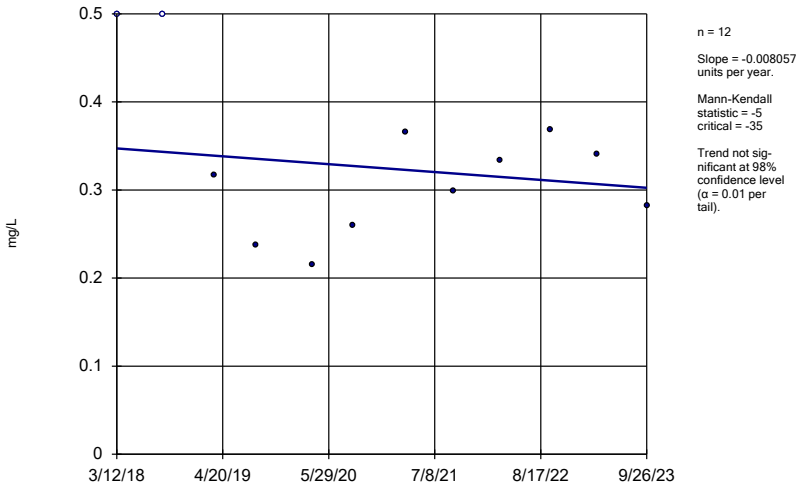
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.008057 units per year.

Mann-Kendall statistic = -5
critical = -35

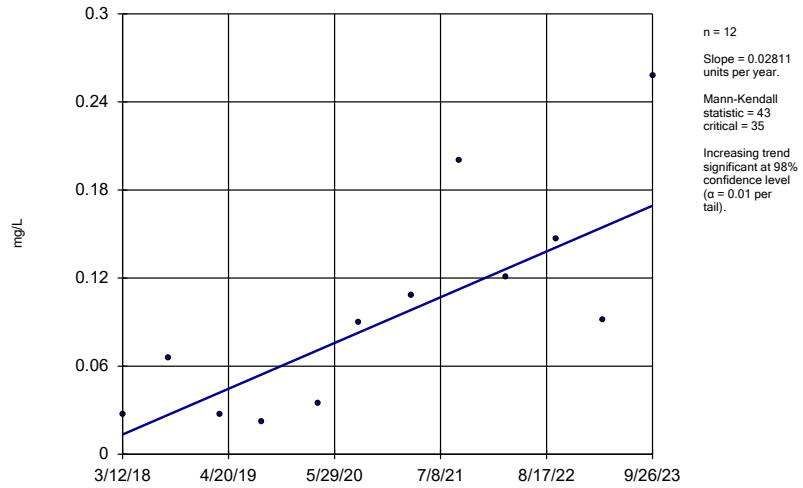
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.02811 units per year.

Mann-Kendall statistic = 43
critical = 35

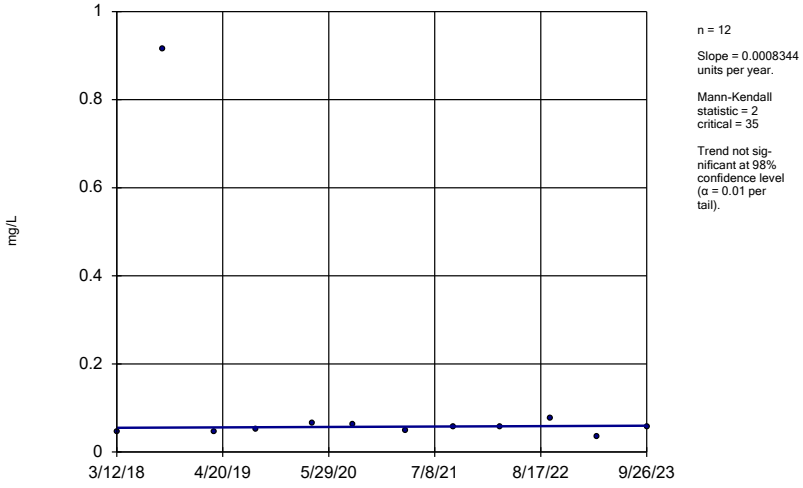
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0008344 units per year.

Mann-Kendall statistic = 2
critical = 35

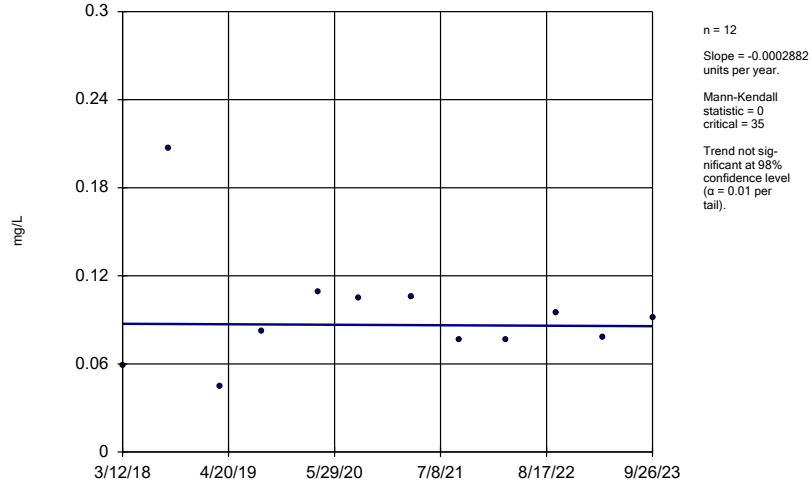
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.0002882 units per year.

Mann-Kendall statistic = 0
critical = 35

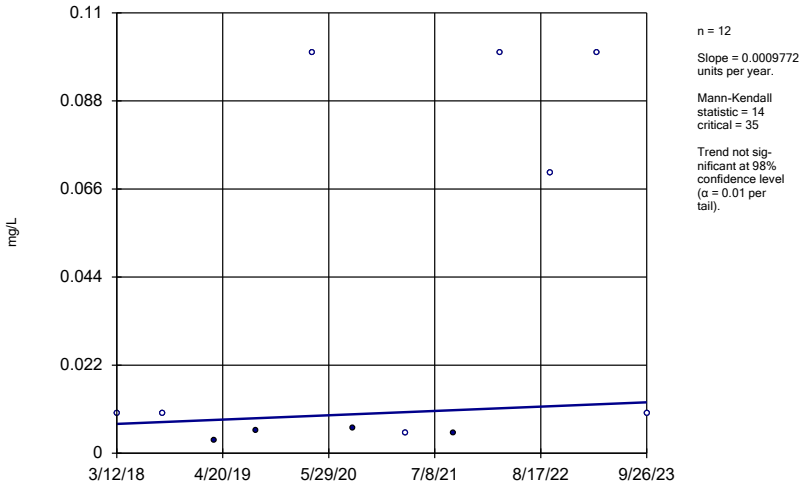
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.0009772 units per year.

Mann-Kendall statistic = 14
critical = 35

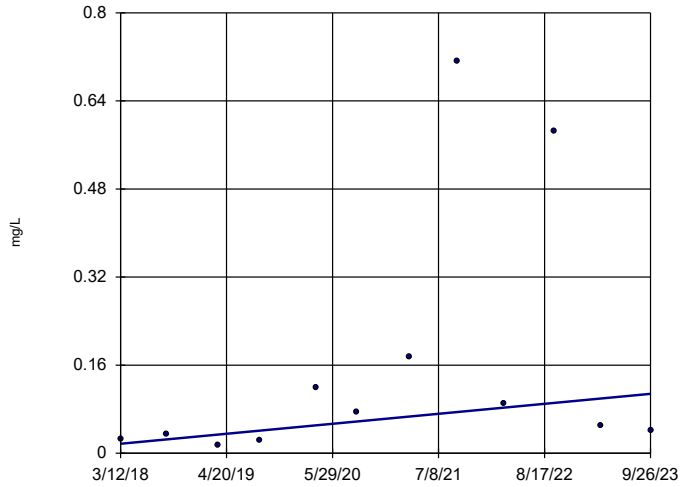
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.01634 units per year.

Mann-Kendall statistic = 22
critical = 35

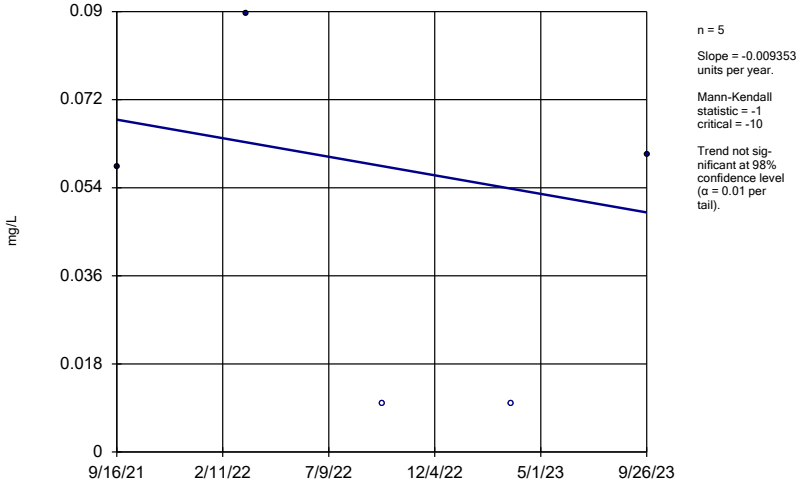
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = -0.009353 units per year.

Mann-Kendall statistic = -1
critical = -10

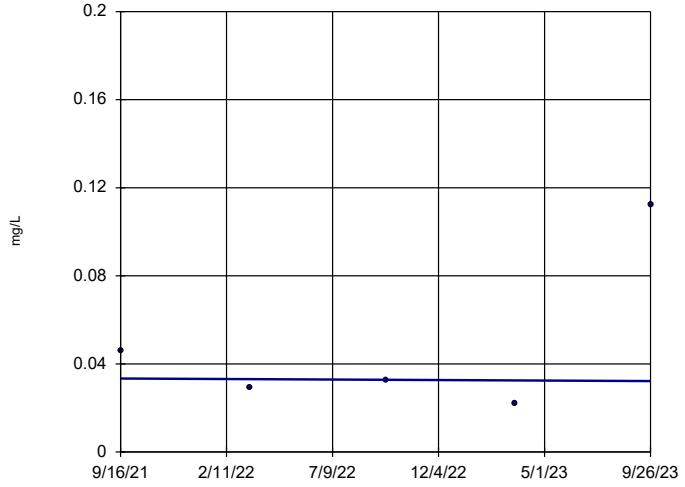
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21



n = 5

Slope = -0.0005462 units per year.

Mann-Kendall statistic = 0
critical = 10

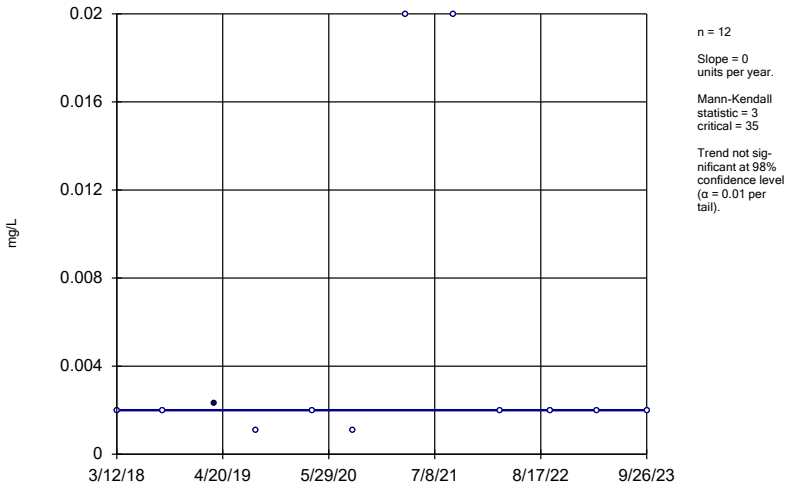
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Manganese Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 35

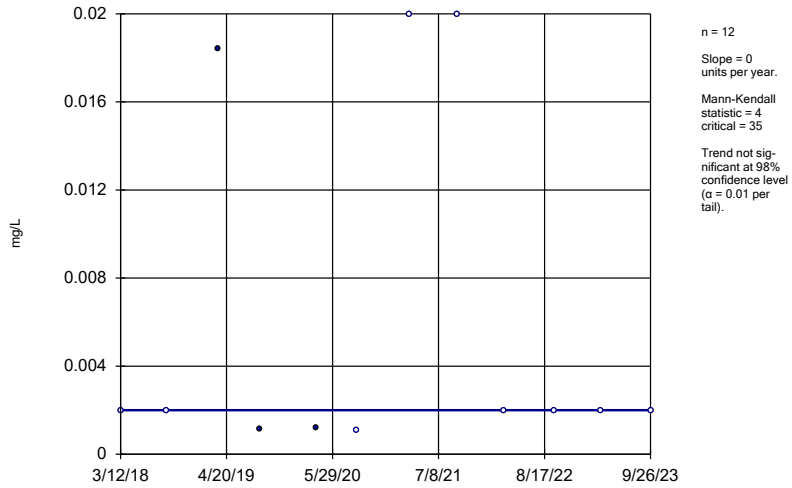
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 4
critical = 35

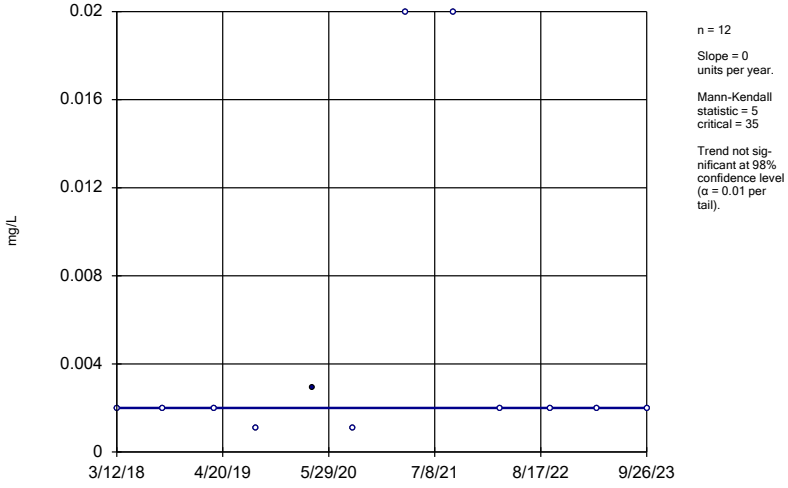
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

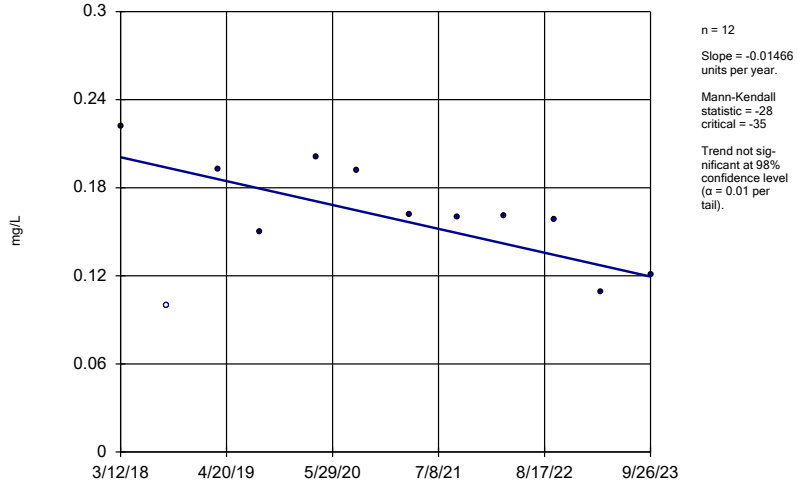
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.01466 units per year.

Mann-Kendall statistic = -28
critical = -35

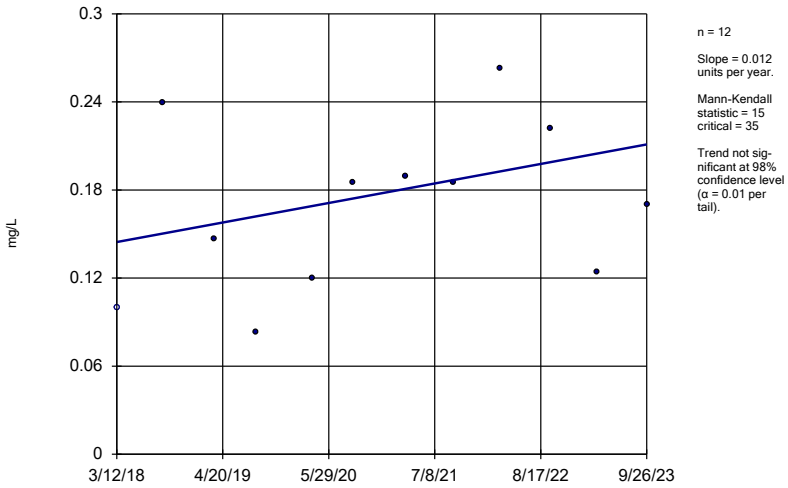
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0.012 units per year.

Mann-Kendall statistic = 15
critical = 35

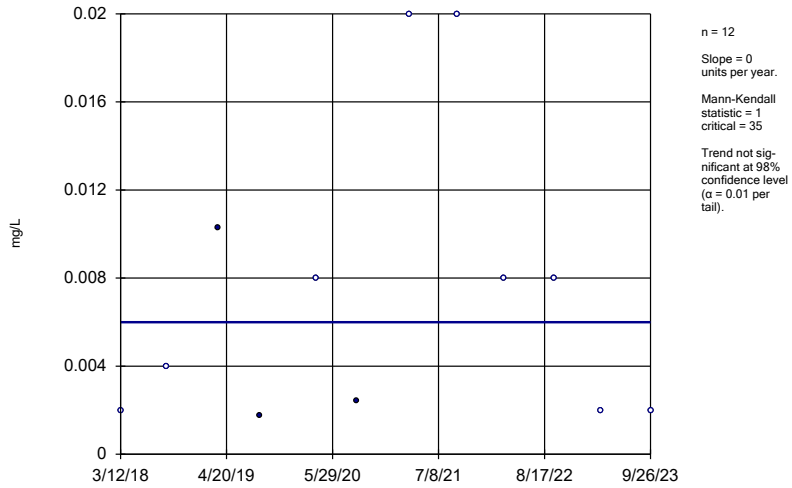
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 35

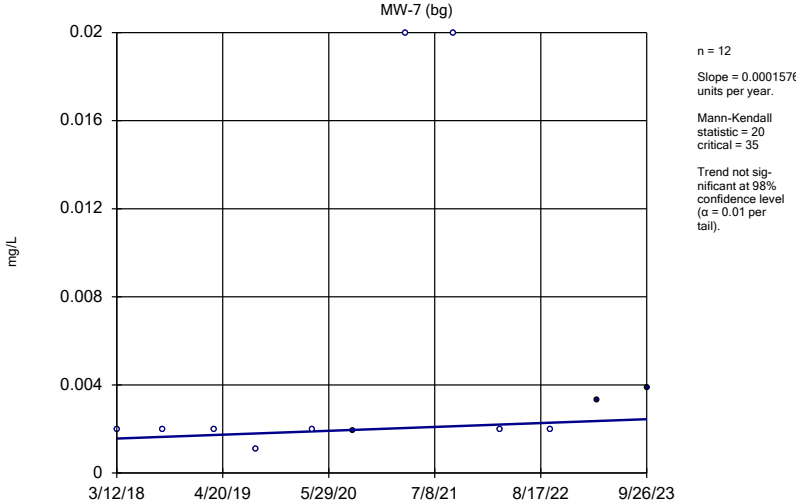
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.0001576 units per year.

Mann-Kendall statistic = 20
critical = 35

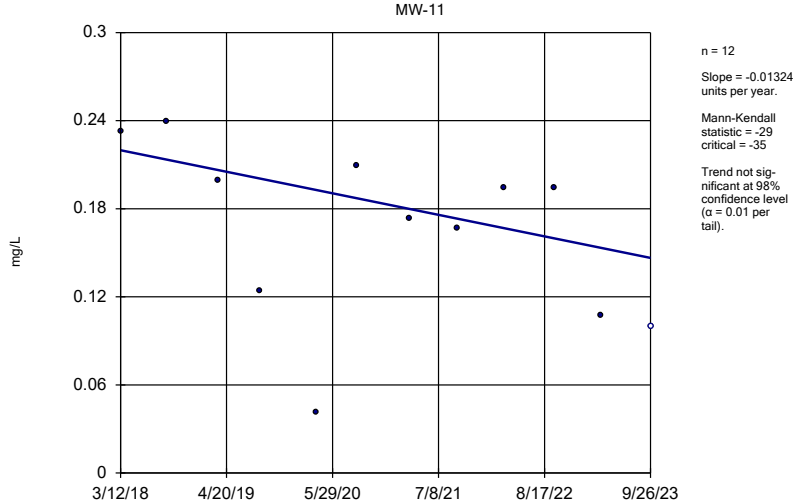
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.01324 units per year.

Mann-Kendall statistic = -29
critical = -35

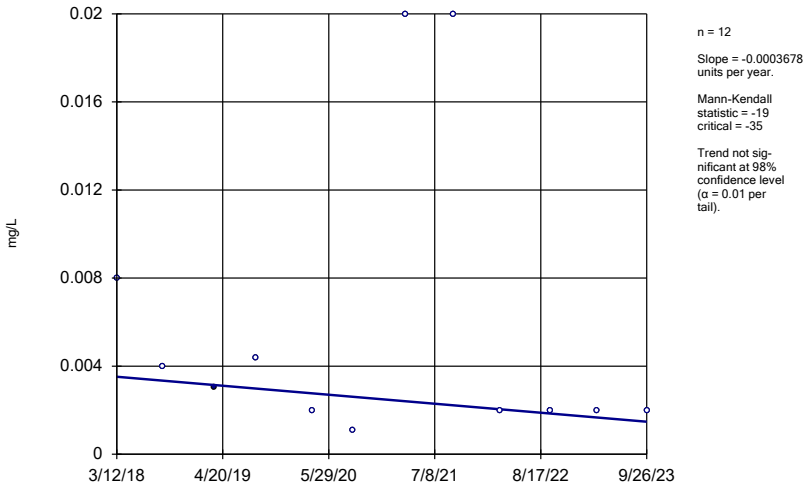
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.0003678 units per year.

Mann-Kendall statistic = -19
critical = -35

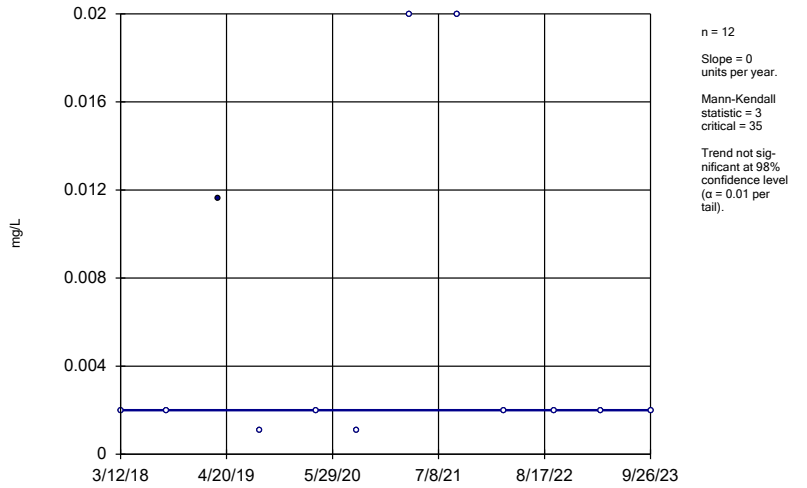
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 35

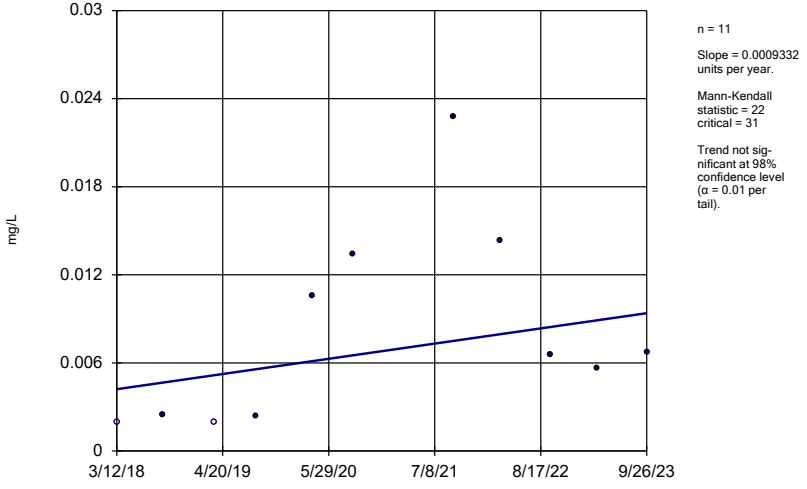
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0.0009332 units per year.

Mann-Kendall statistic = 22
critical = 31

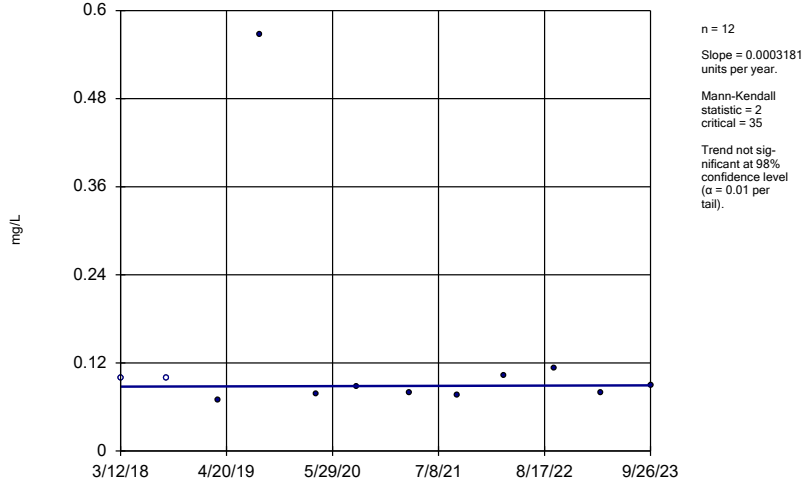
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0.0003181 units per year.

Mann-Kendall statistic = 2
critical = 35

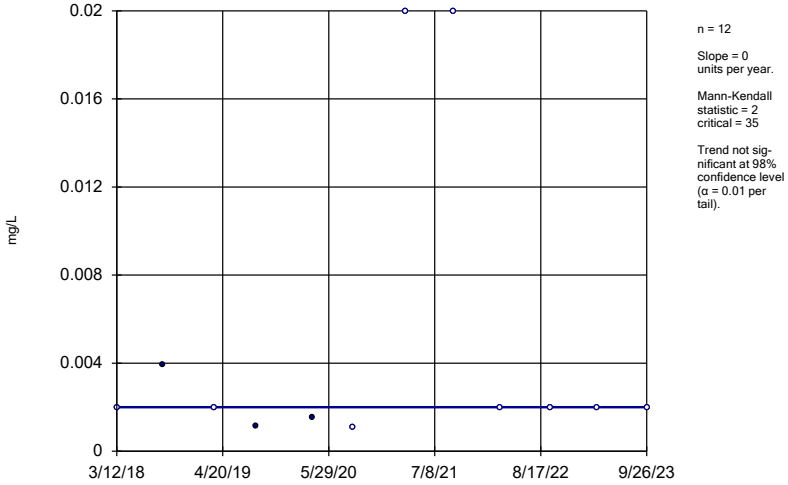
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 35

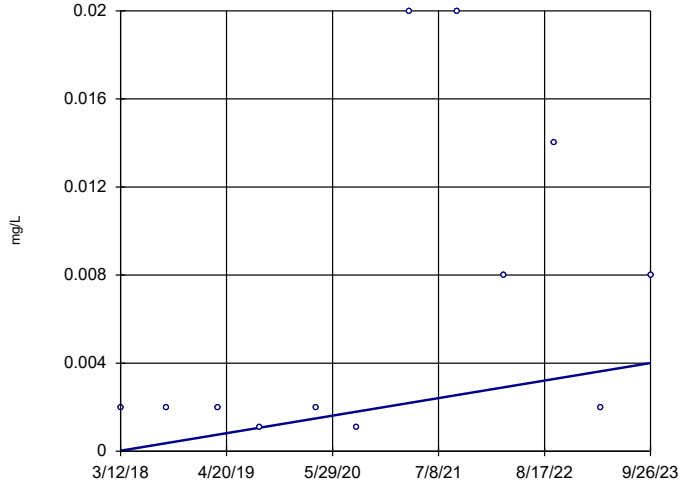
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0007176 units per year.

Mann-Kendall statistic = 17
critical = 35

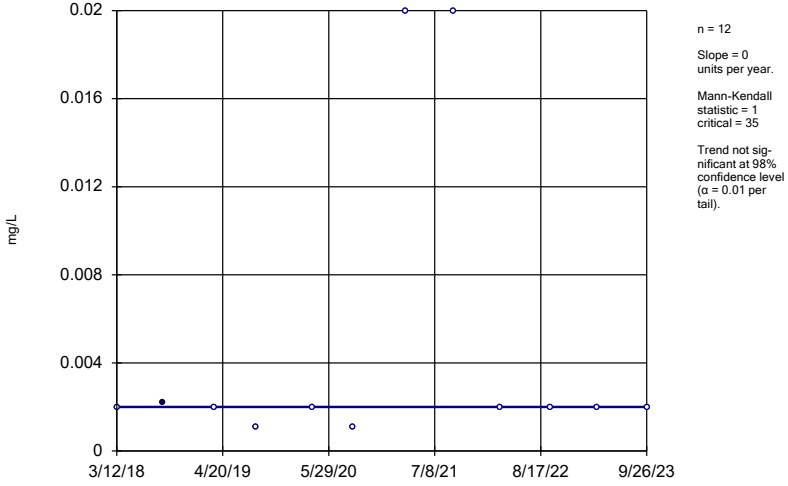
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 35

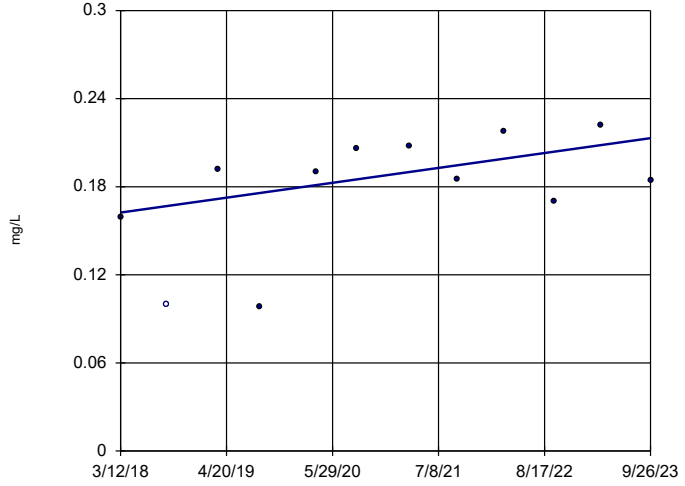
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.009135 units per year.

Mann-Kendall statistic = 22
critical = 35

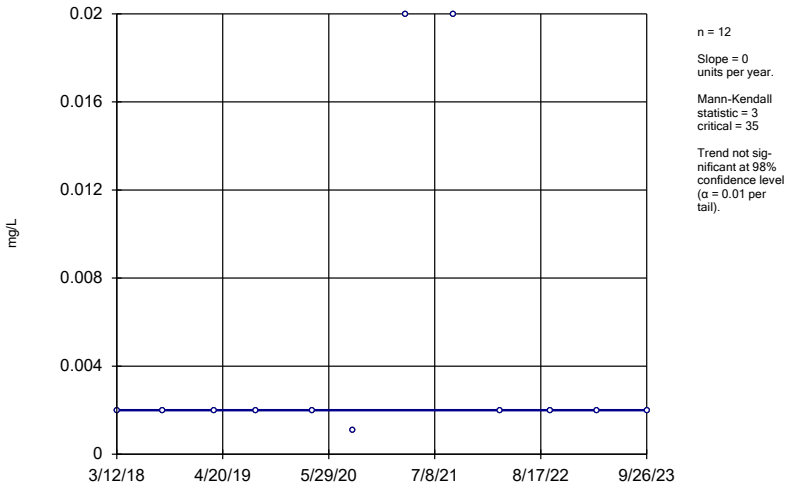
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19

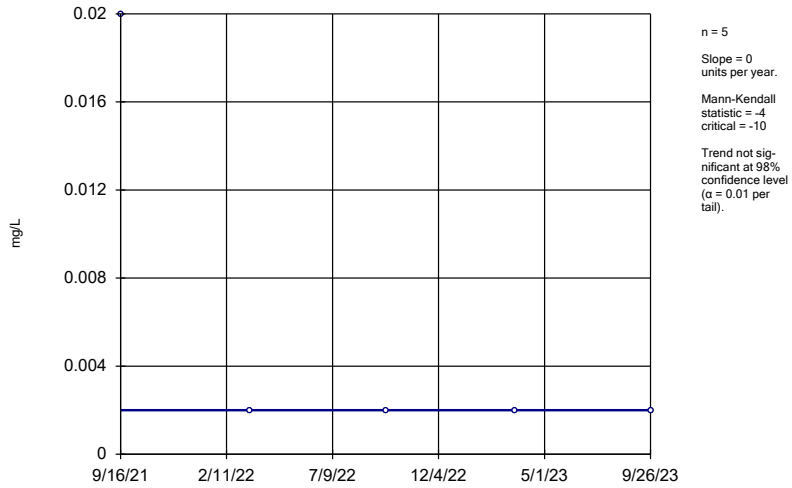


Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20

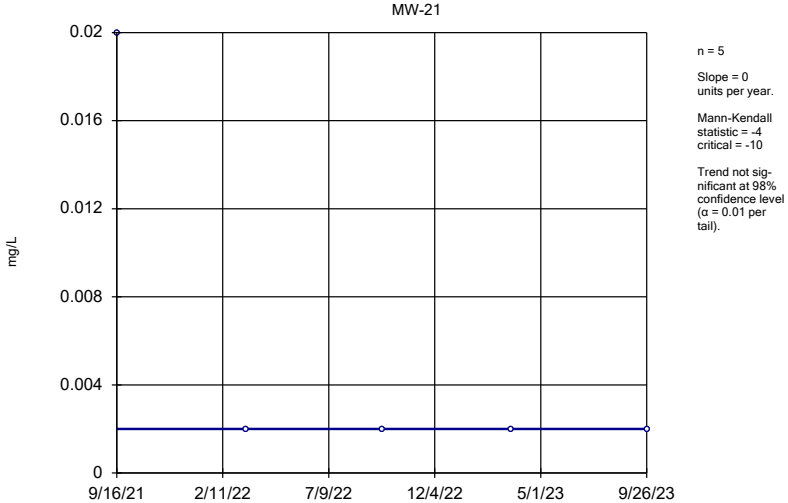


Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

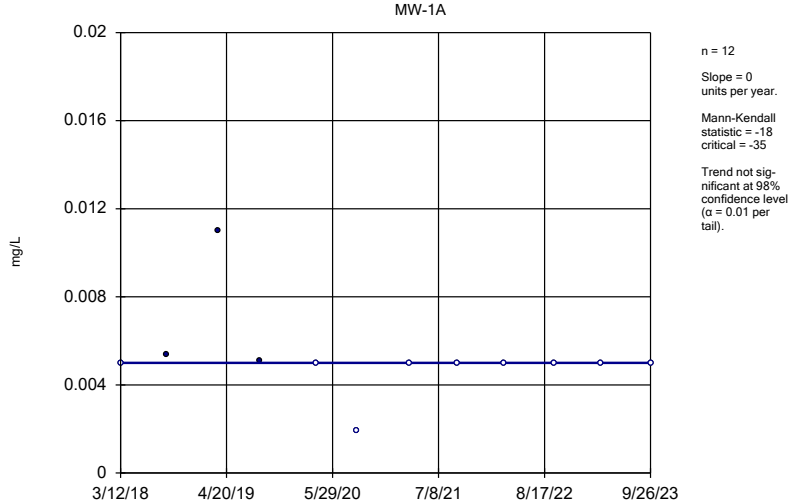


Constituent: Molybdenum Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

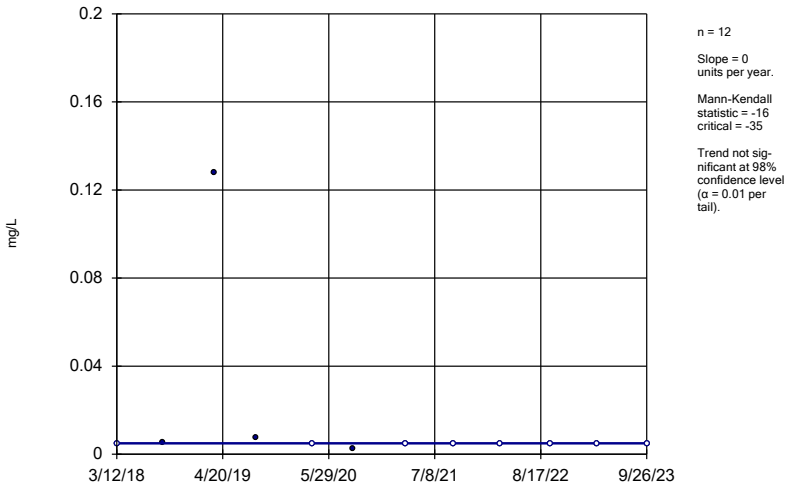


Constituent: Nickel Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = -16
critical = -35

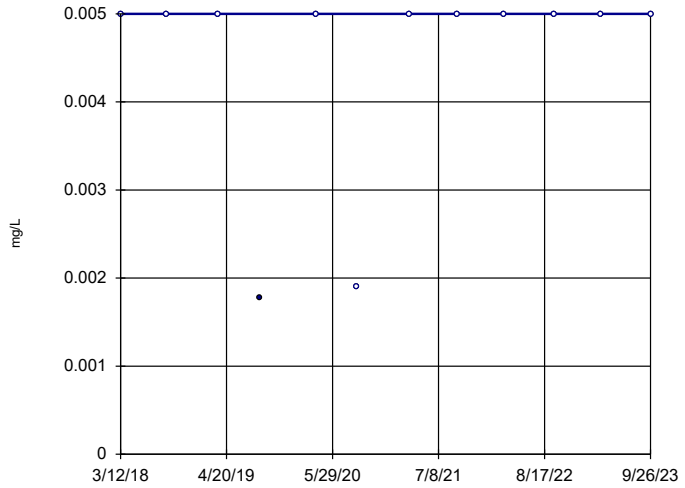
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = 7
critical = 35

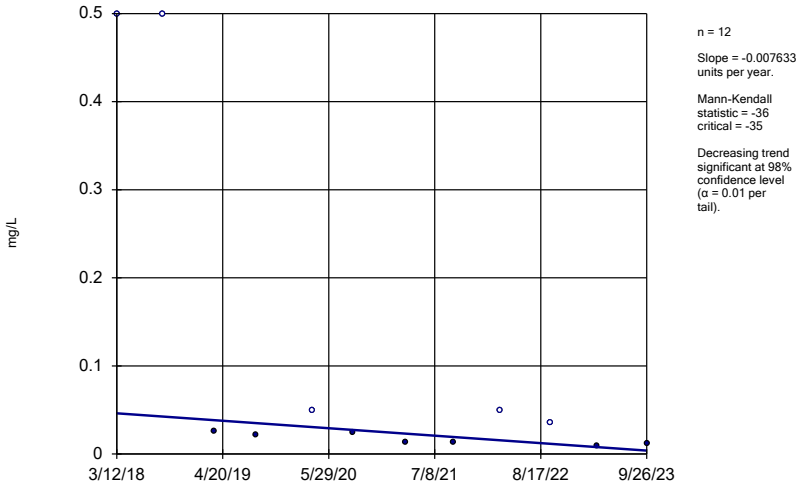
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.007633
units per year.

Mann-Kendall
statistic = -36
critical = -35

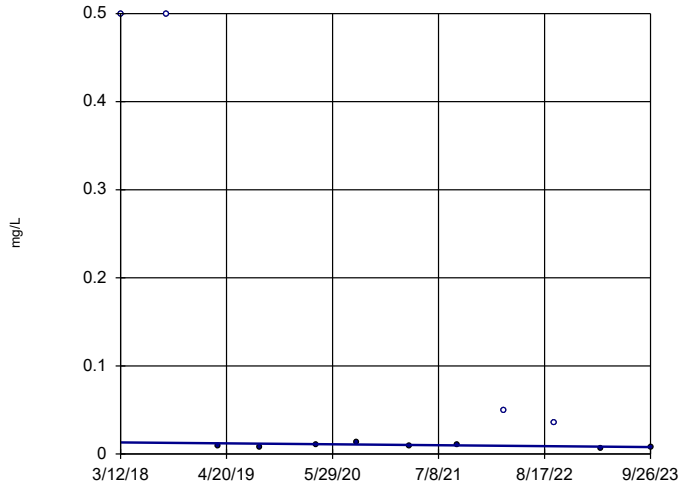
Decreasing trend
significant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.0009786
units per year.

Mann-Kendall
statistic = -15
critical = -35

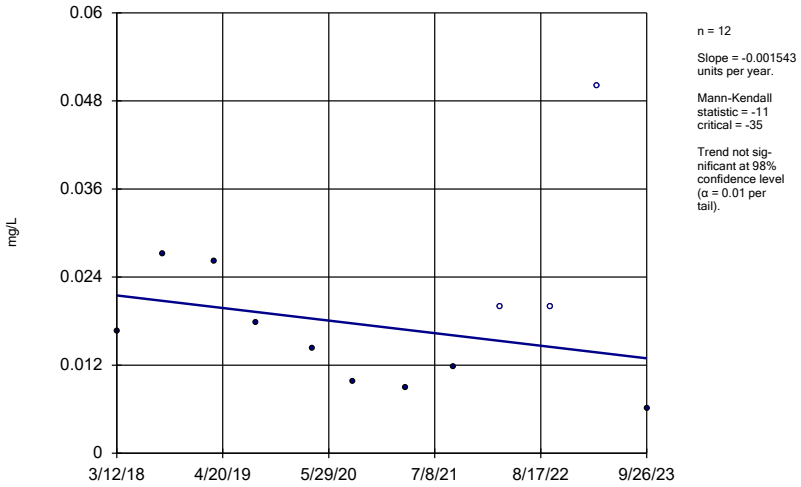
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = -0.001543 units per year.

Mann-Kendall statistic = -11
critical = -35

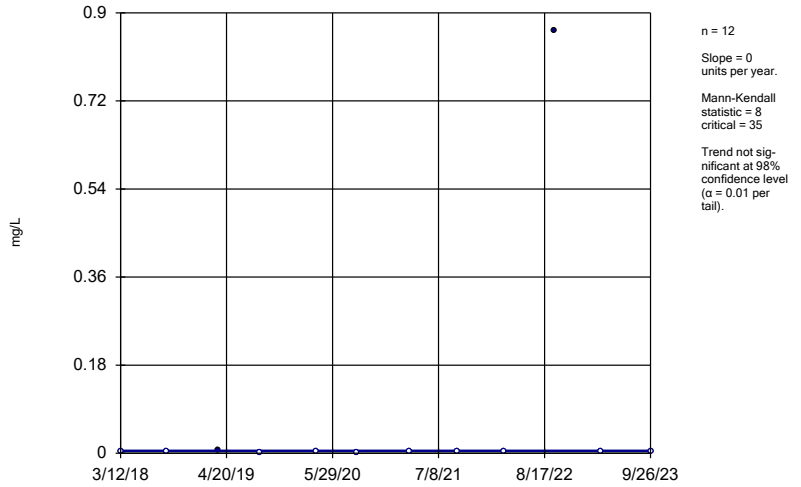
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:53 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 8
critical = 35

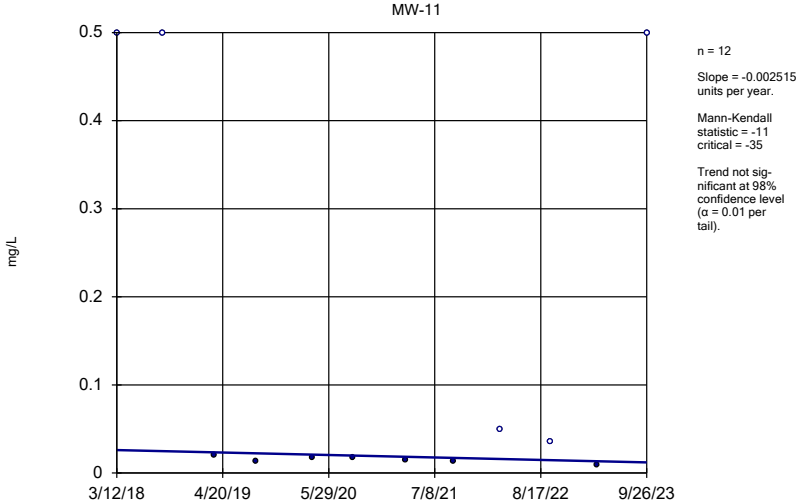
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.002515 units per year.

Mann-Kendall statistic = -11
critical = -35

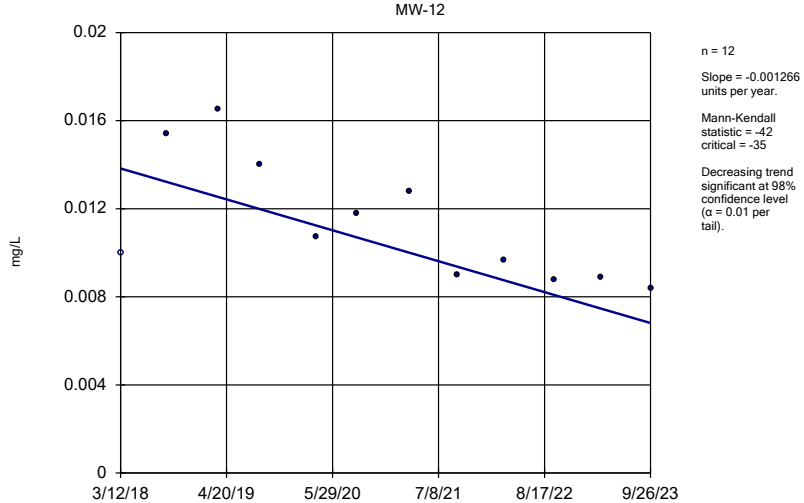
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.001266 units per year.

Mann-Kendall statistic = -42
critical = -35

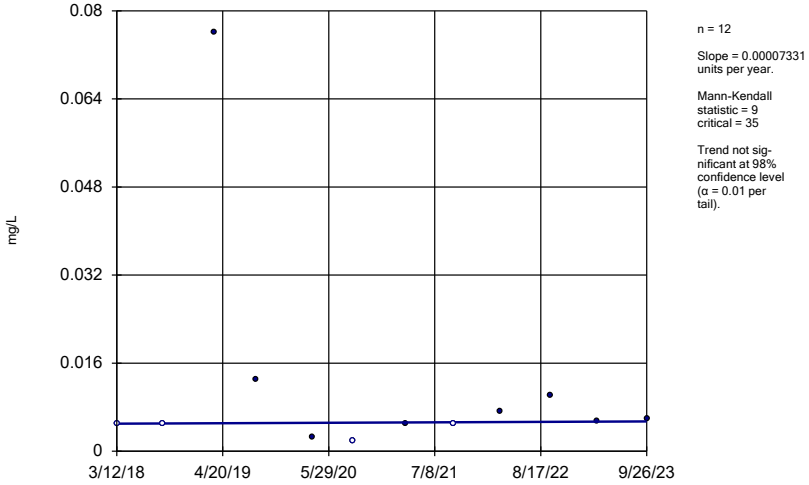
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0.00007331 units per year.

Mann-Kendall statistic = 9
critical = 35

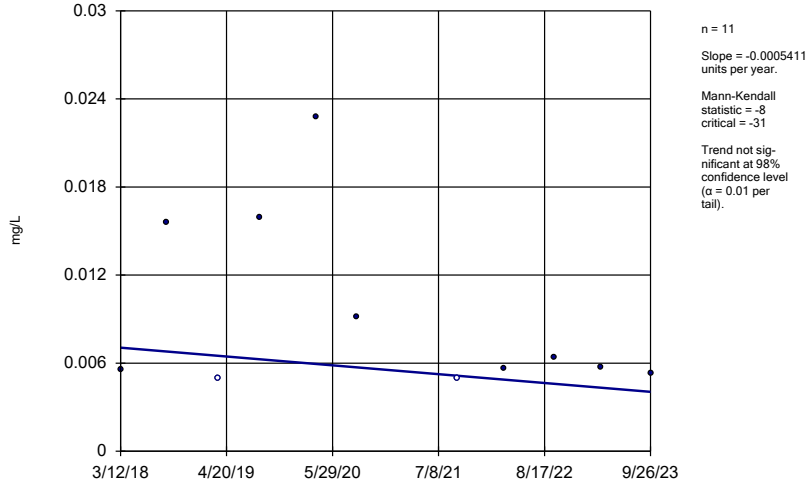
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.0005411 units per year.

Mann-Kendall statistic = -8
critical = -31

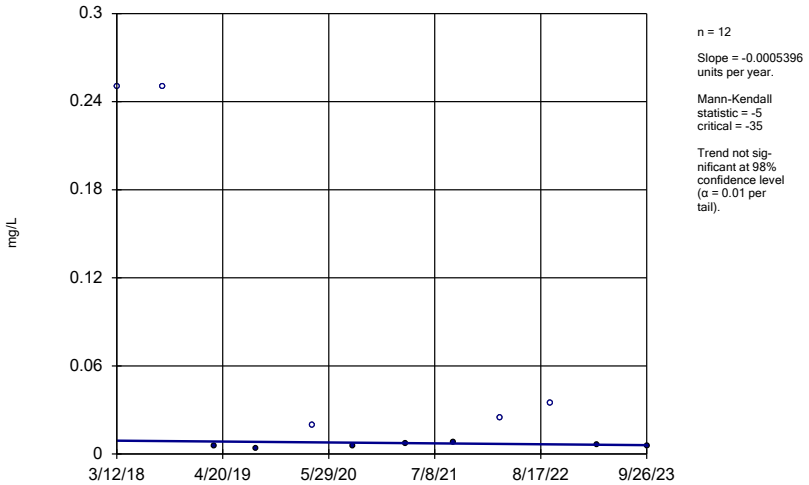
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = -0.0005396 units per year.

Mann-Kendall statistic = -5
critical = -35

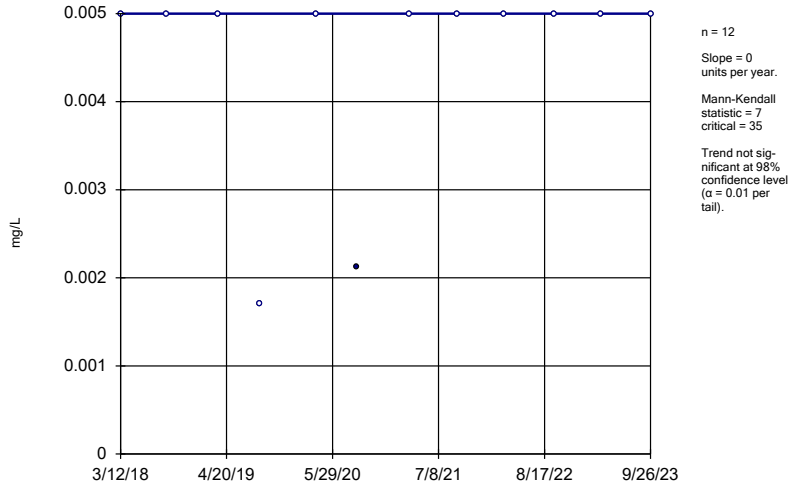
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 7
critical = 35

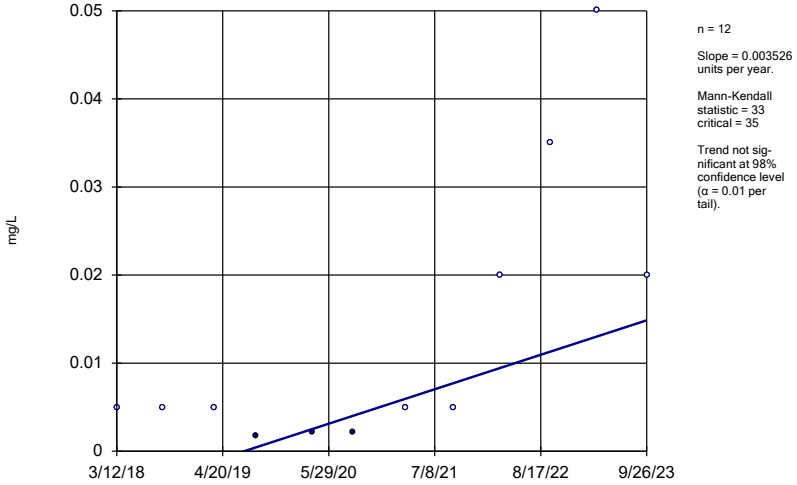
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.003526 units per year.

Mann-Kendall statistic = 33
critical = 35

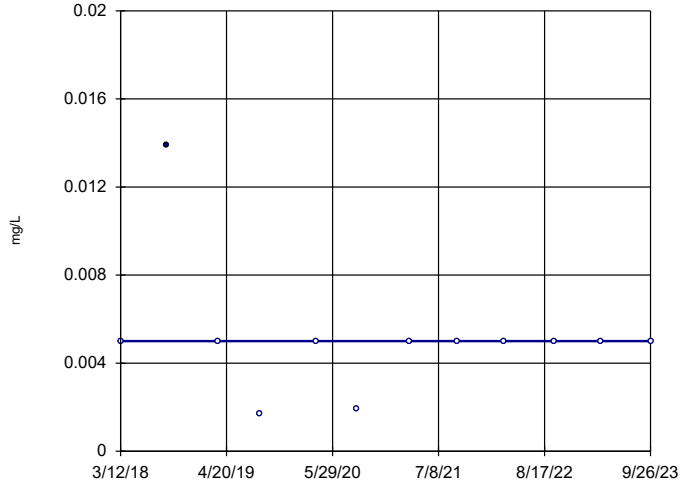
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 35

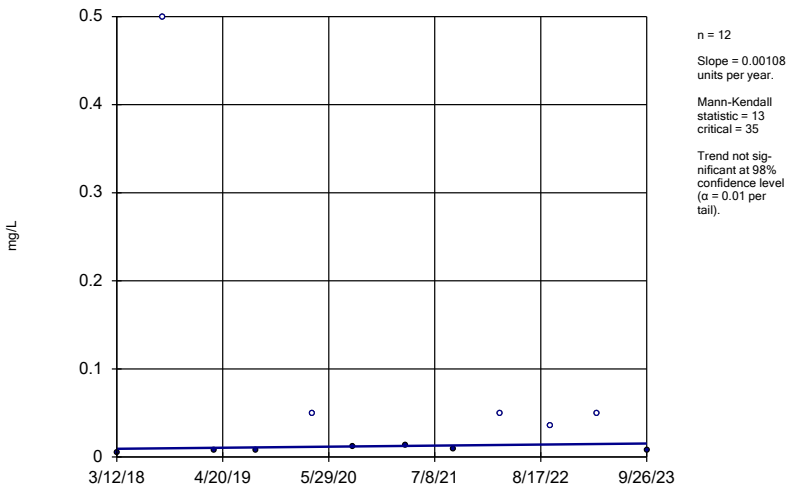
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.00108 units per year.

Mann-Kendall statistic = 13
critical = 35

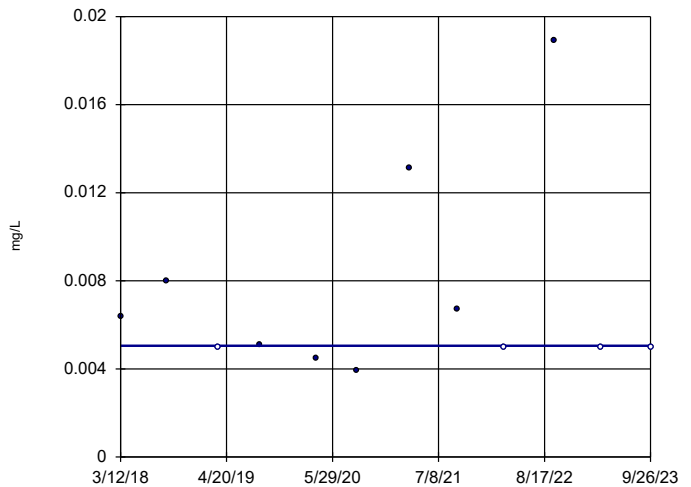
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -35

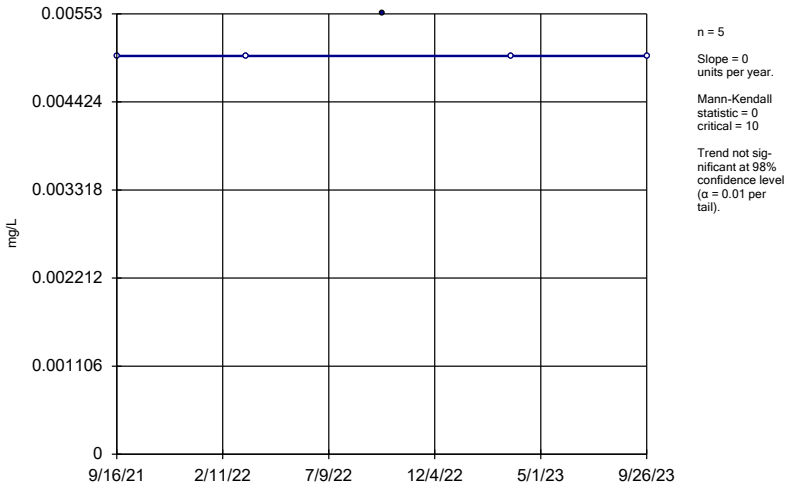
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20

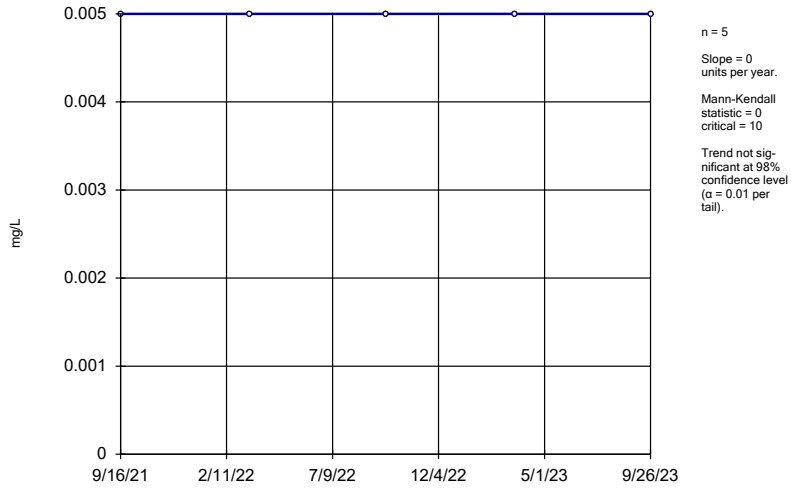


Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

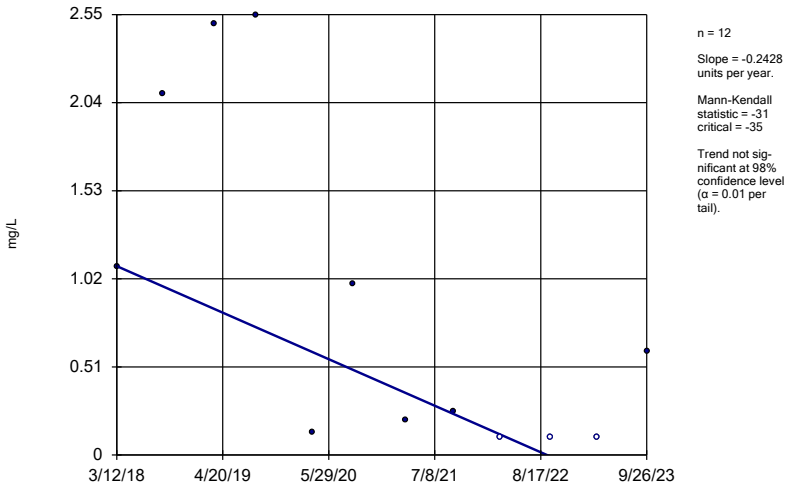


Constituent: Nickel Total Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

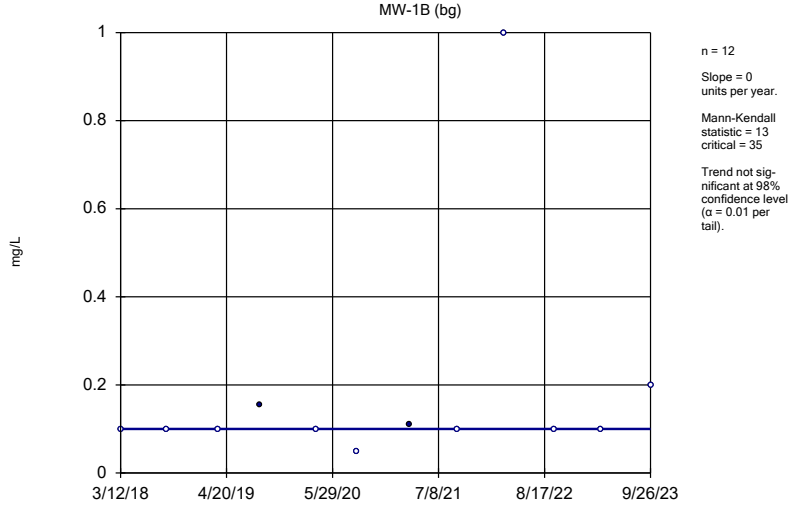


Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

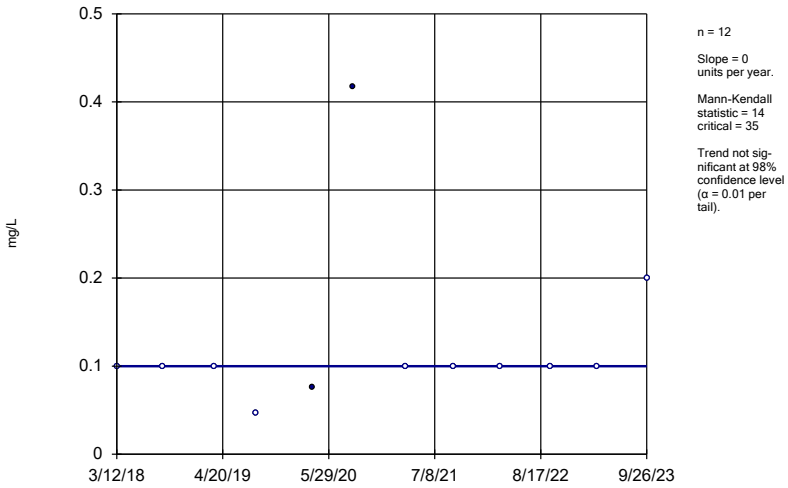


Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 14 critical = 35

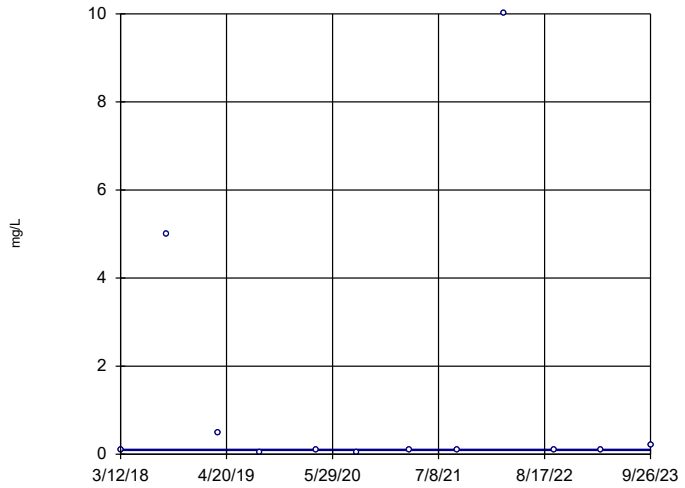
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5 critical = 35

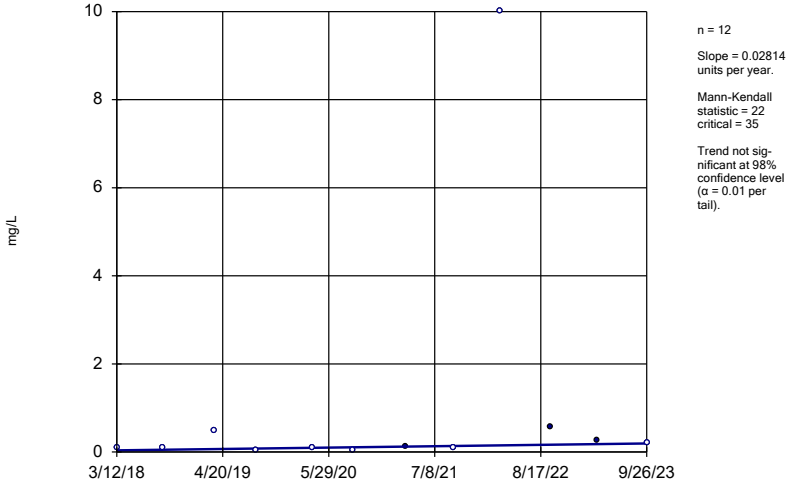
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0.02814 units per year.

Mann-Kendall statistic = 22 critical = 35

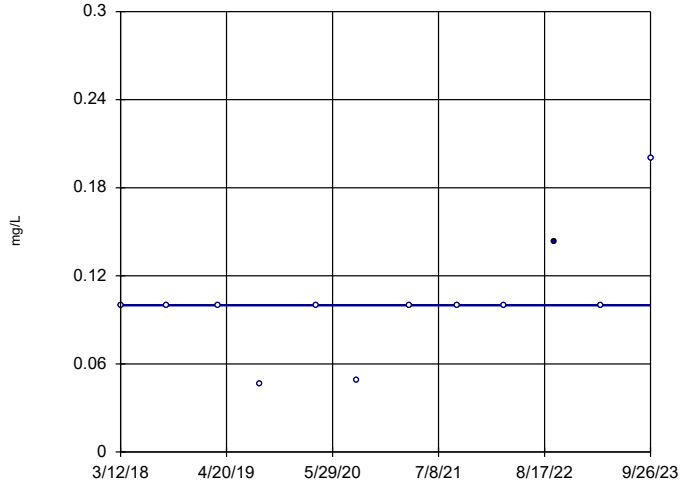
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 22 critical = 35

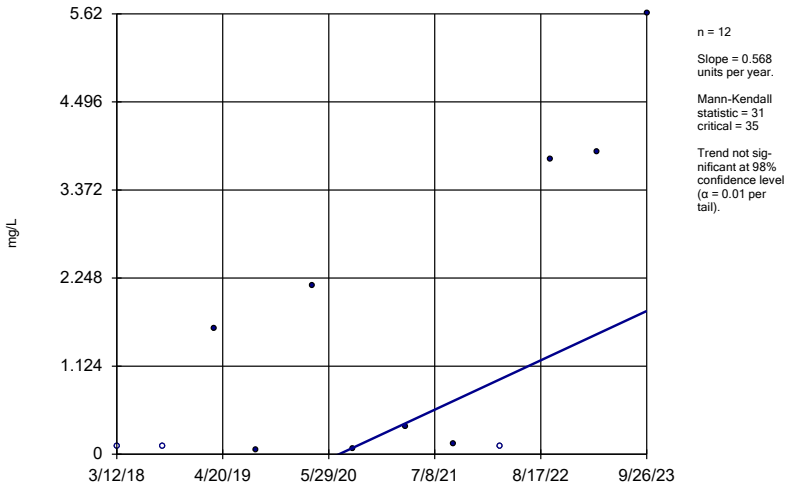
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.568 units per year.

Mann-Kendall statistic = 31
critical = 35

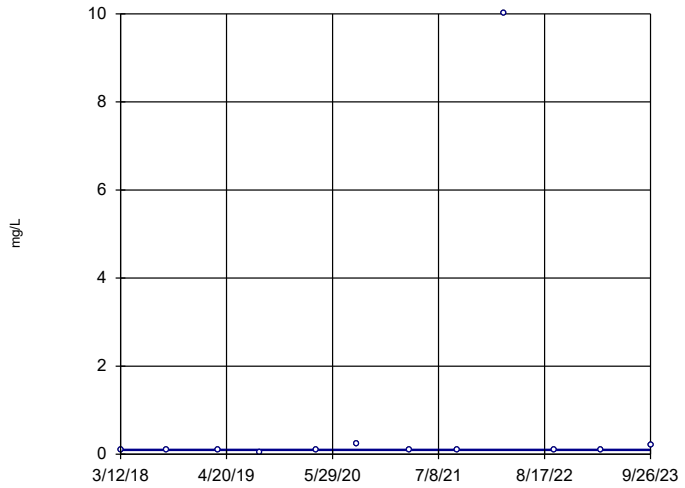
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 16
critical = 35

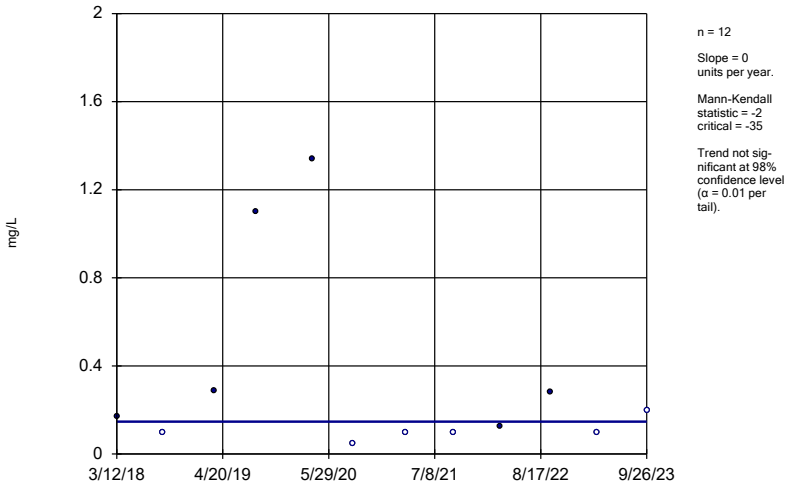
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -2
critical = -35

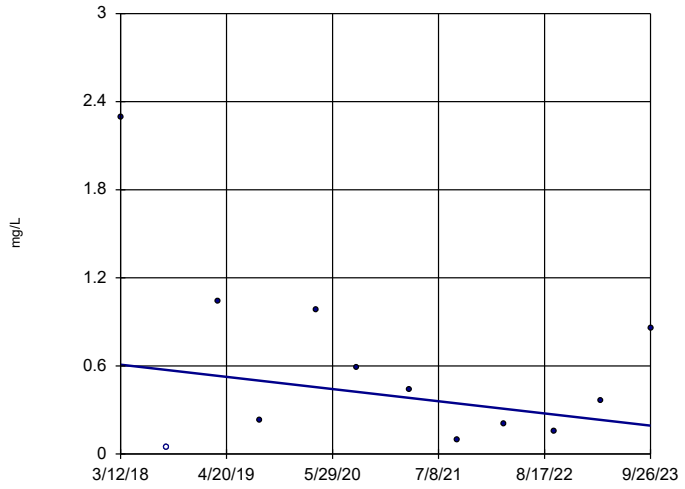
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = -0.07496 units per year.

Mann-Kendall statistic = -14
critical = -35

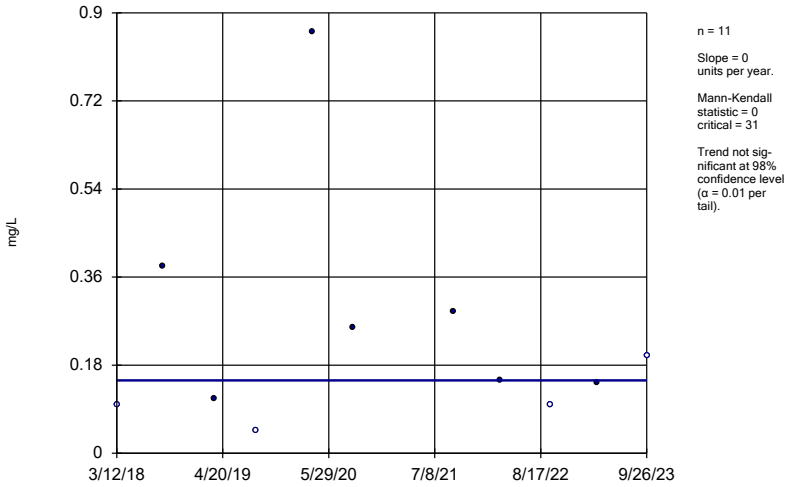
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 31

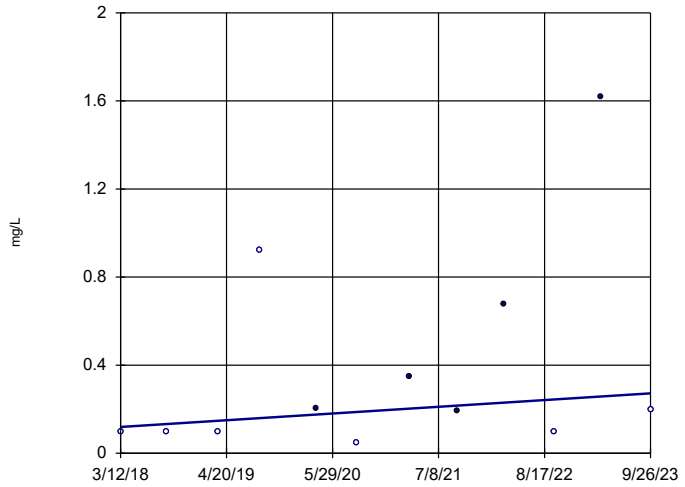
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0.02762 units per year.

Mann-Kendall statistic = 18 critical = 35

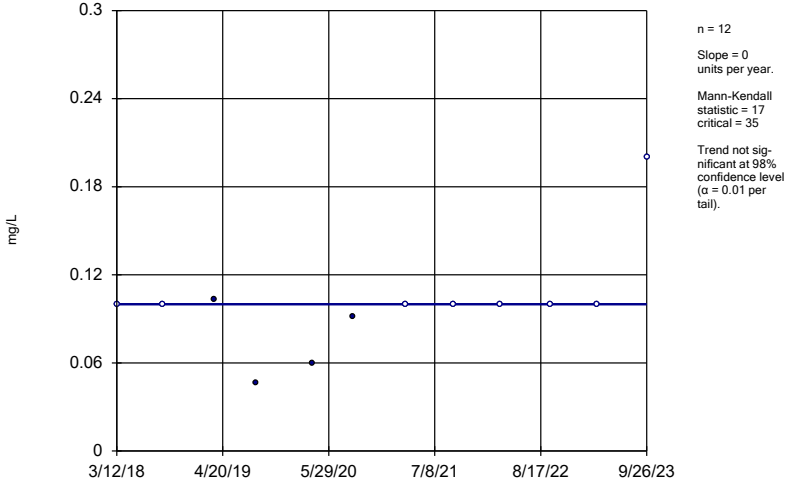
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 17 critical = 35

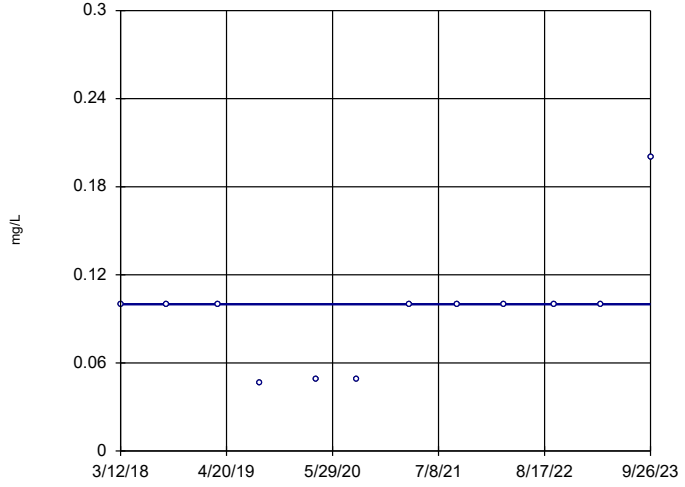
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 19 critical = 35

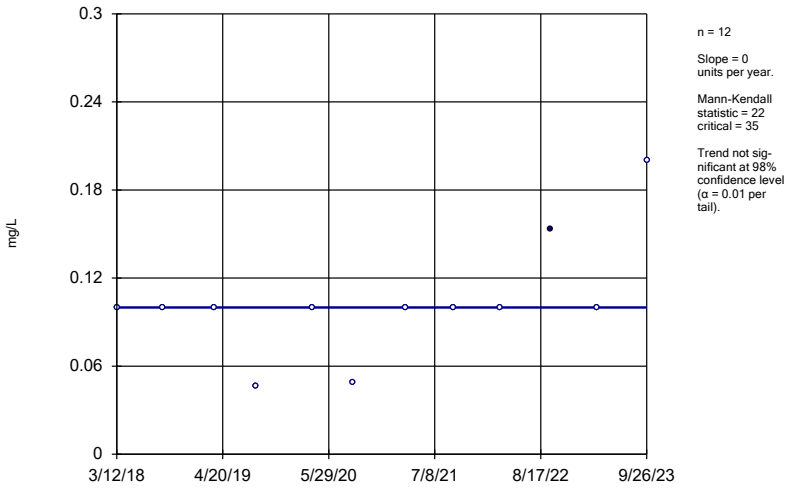
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 22
critical = 35

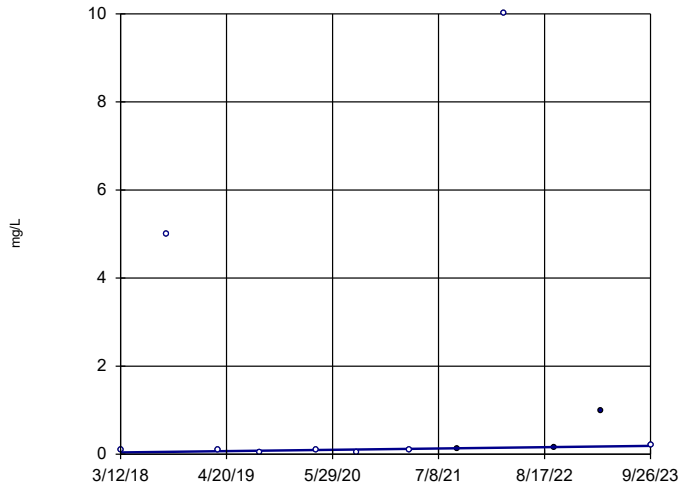
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.02689 units per year.

Mann-Kendall statistic = 24
critical = 35

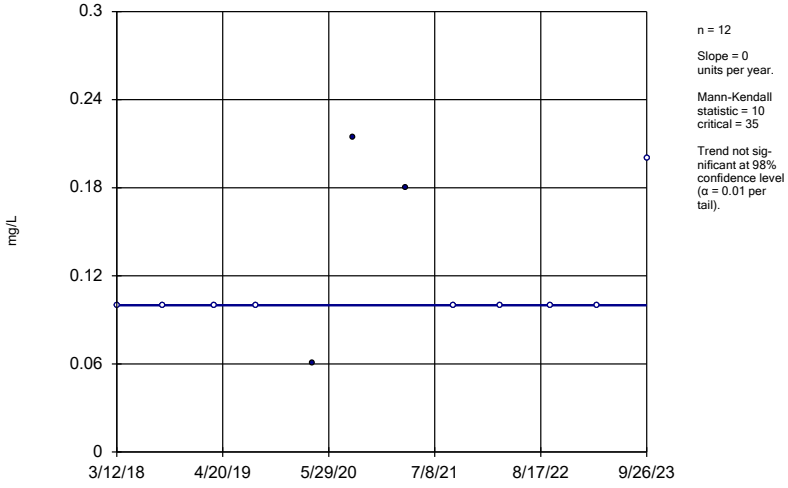
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 10
critical = 35

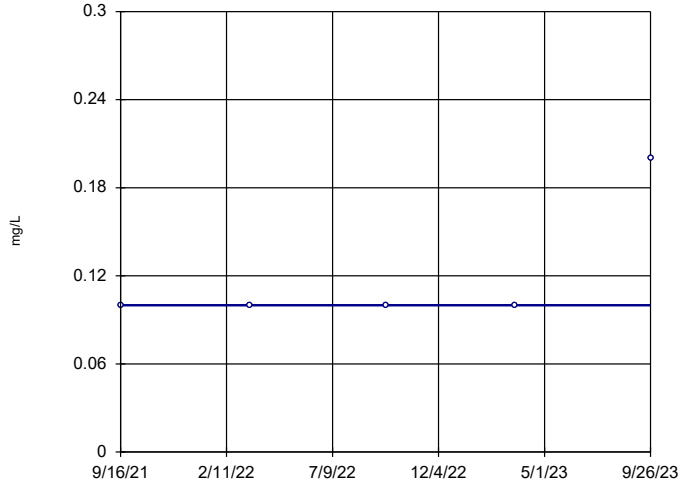
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = 4
critical = 10

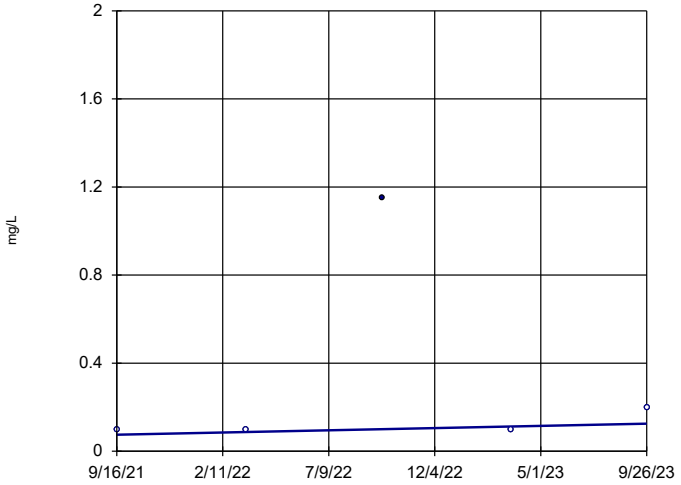
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0.02466 units per year.

Mann-Kendall statistic = 3
critical = 10

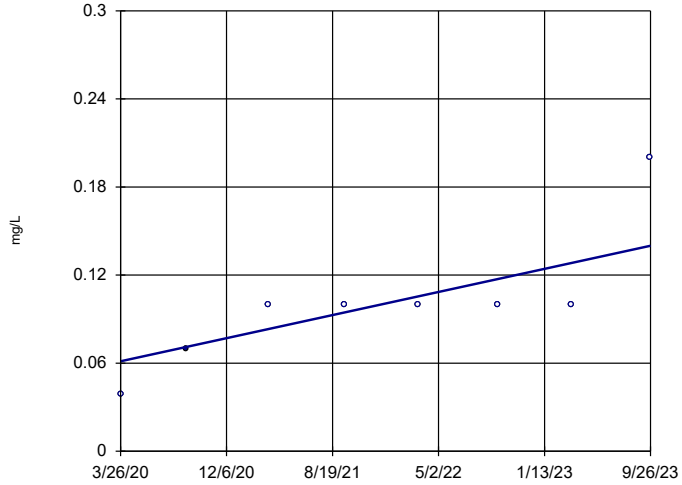
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrate Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 8

Slope = 0.02246 units per year.

Mann-Kendall statistic = 18
critical = 20

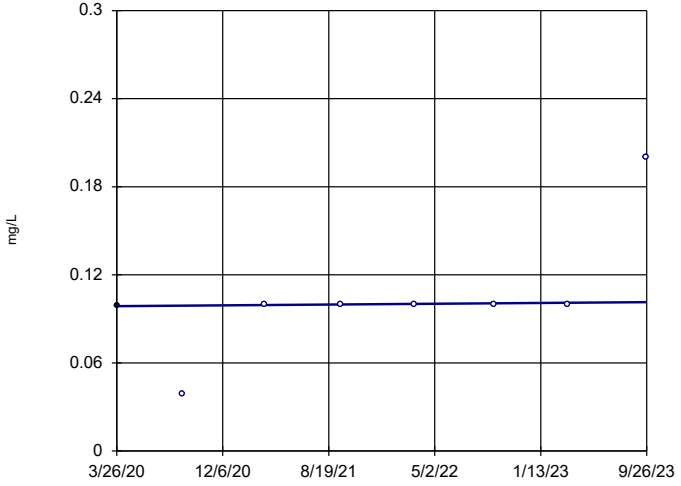
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 8

Slope = 0.0007701 units per year.

Mann-Kendall statistic = 16
critical = 20

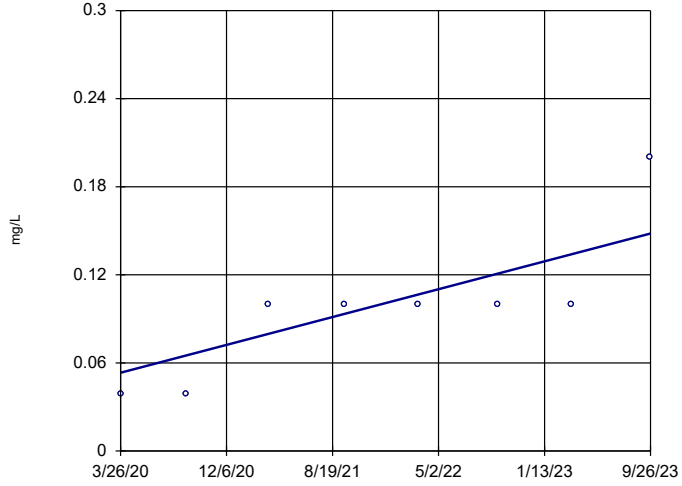
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 8

Slope = 0.02706 units per year.

Mann-Kendall statistic = 17
critical = 20

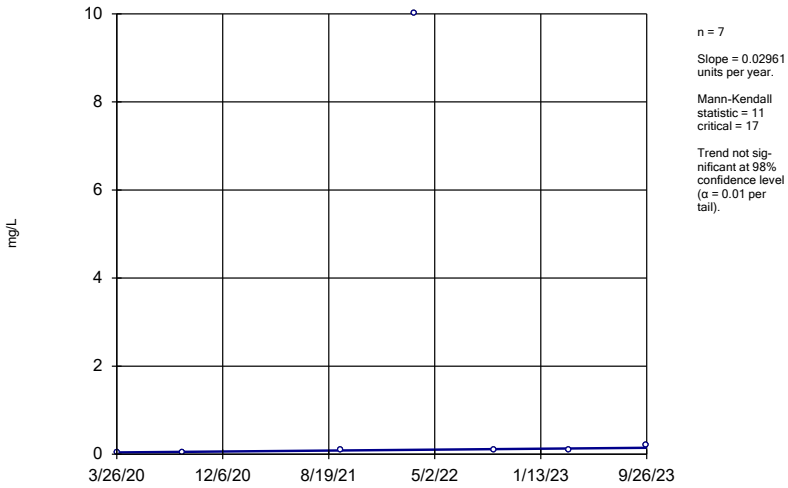
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 7

Slope = 0.02961 units per year.

Mann-Kendall statistic = 11
critical = 17

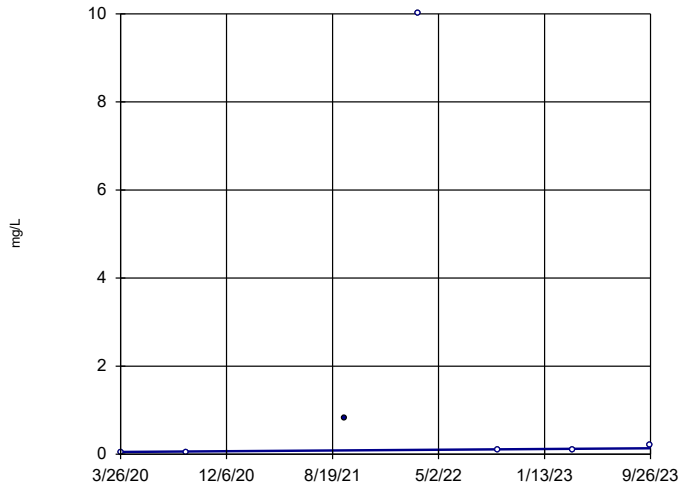
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 7

Slope = 0.02444 units per year.

Mann-Kendall statistic = 7
critical = 17

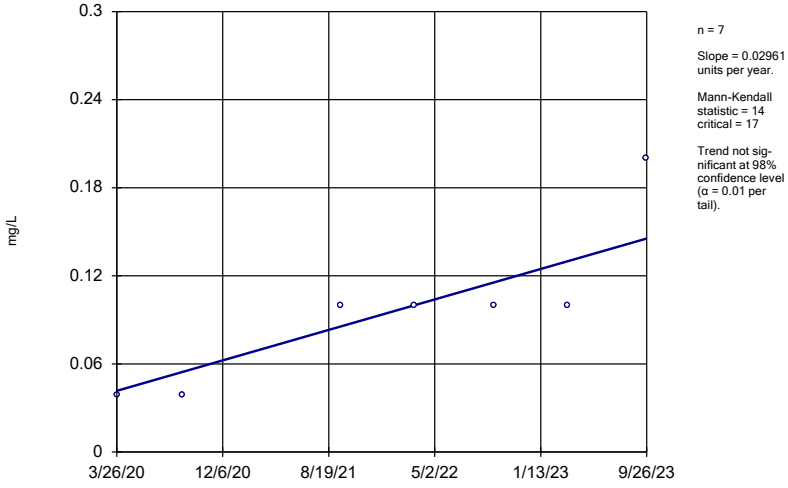
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 7

Slope = 0.02961 units per year.

Mann-Kendall statistic = 14
critical = 17

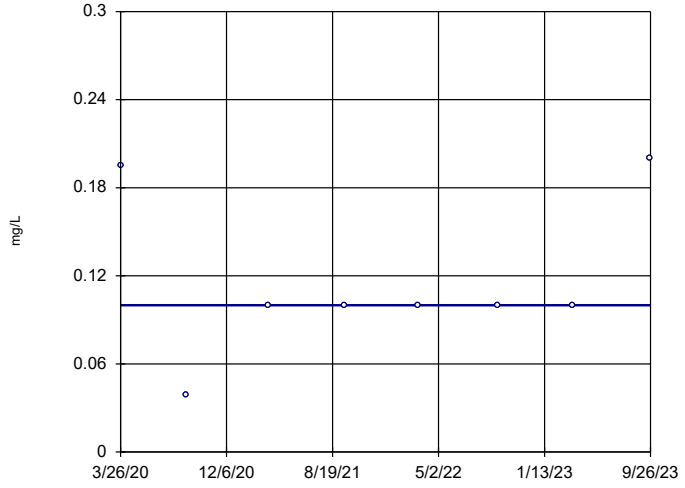
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 20

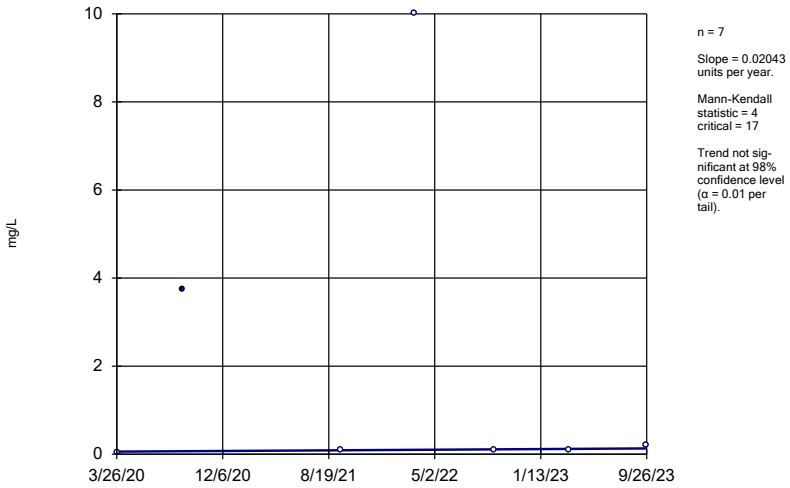
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 7

Slope = 0.02043 units per year.

Mann-Kendall statistic = 4
critical = 17

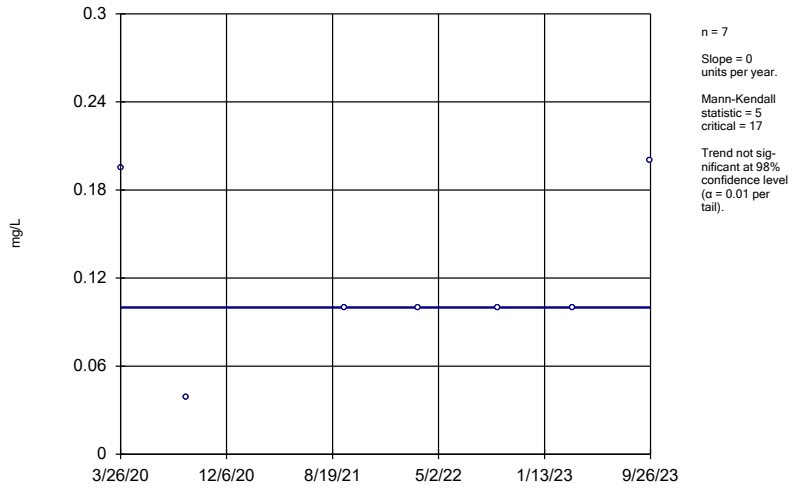
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 7

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 17

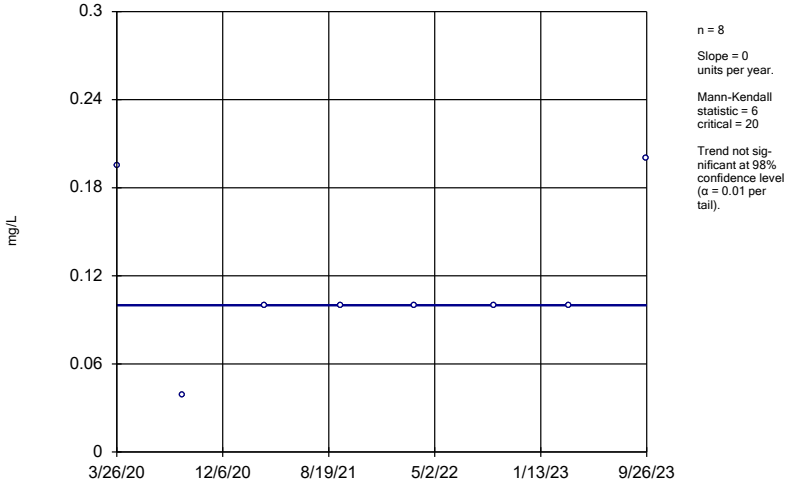
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 20

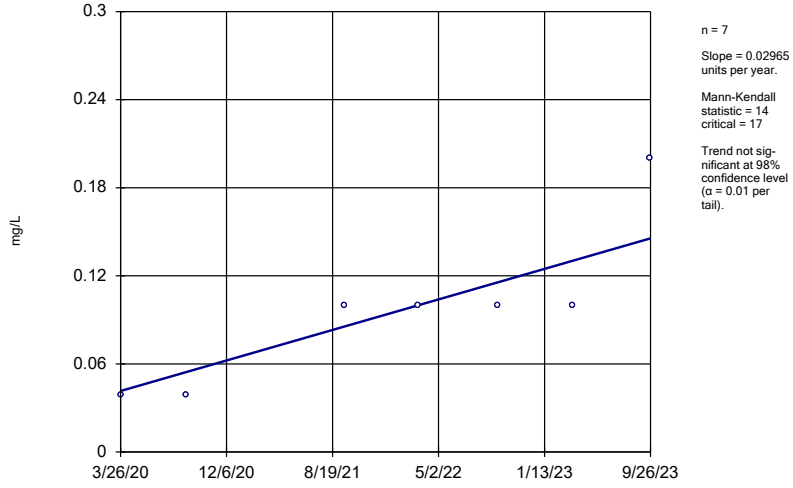
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 7

Slope = 0.02965 units per year.

Mann-Kendall statistic = 14
critical = 17

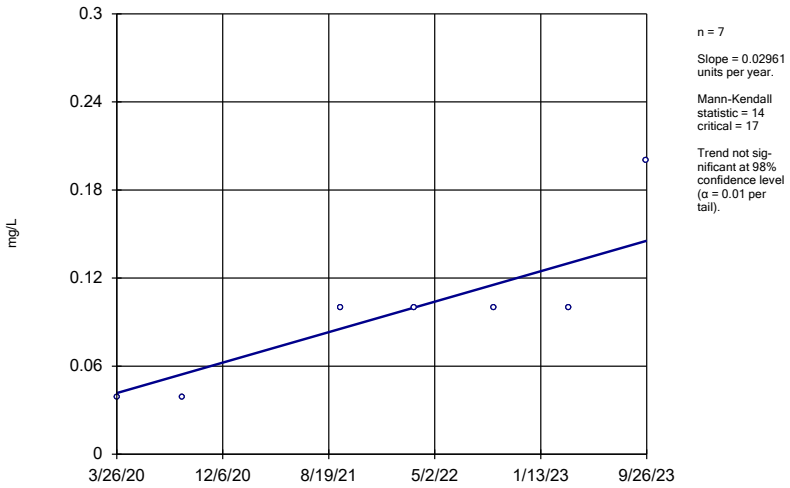
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 7

Slope = 0.02961 units per year.

Mann-Kendall statistic = 14
critical = 17

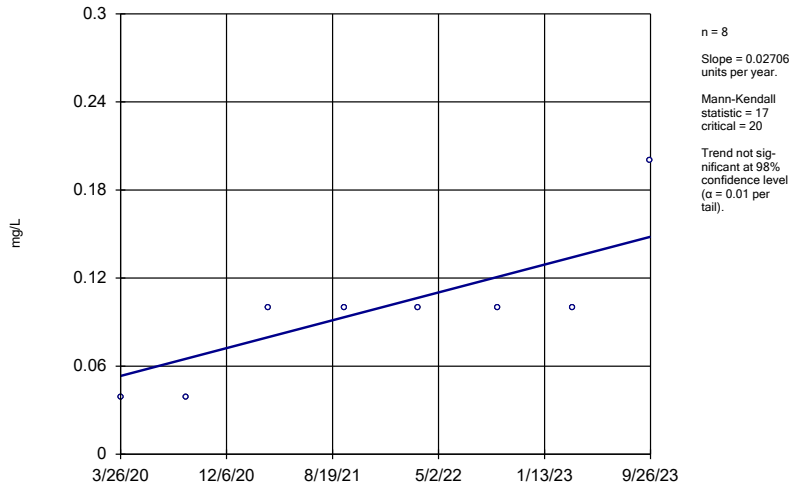
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 8

Slope = 0.02706 units per year.

Mann-Kendall statistic = 17
critical = 20

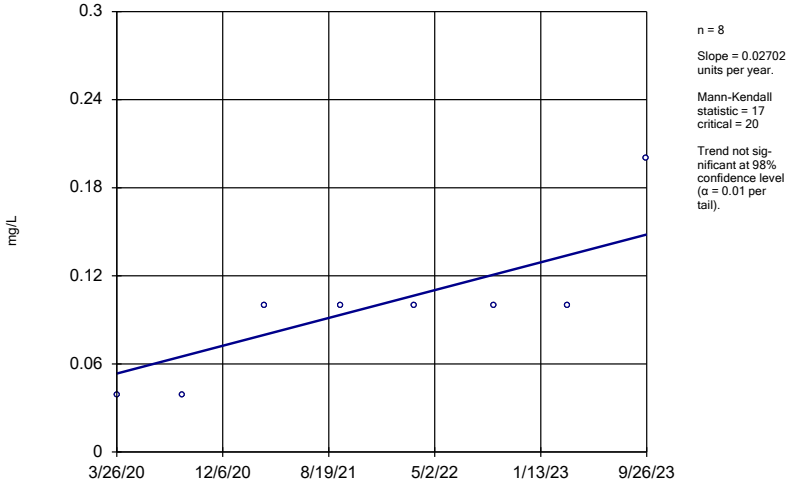
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 8

Slope = 0.02702 units per year.

Mann-Kendall statistic = 17
critical = 20

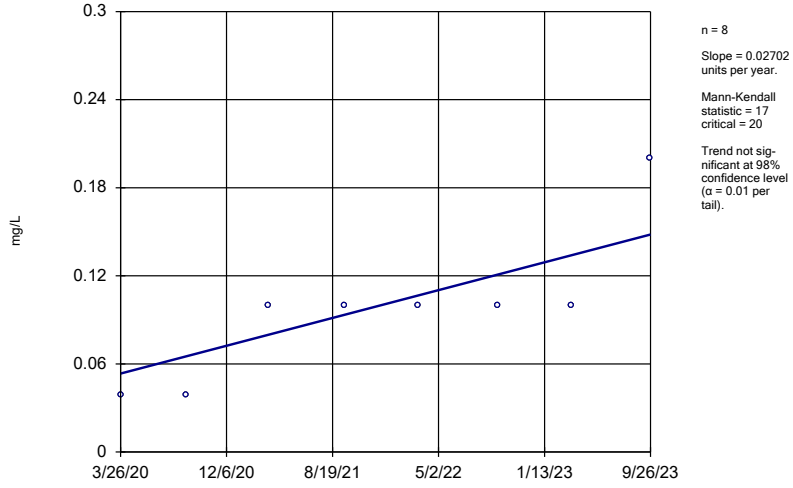
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 8

Slope = 0.02702 units per year.

Mann-Kendall statistic = 17
critical = 20

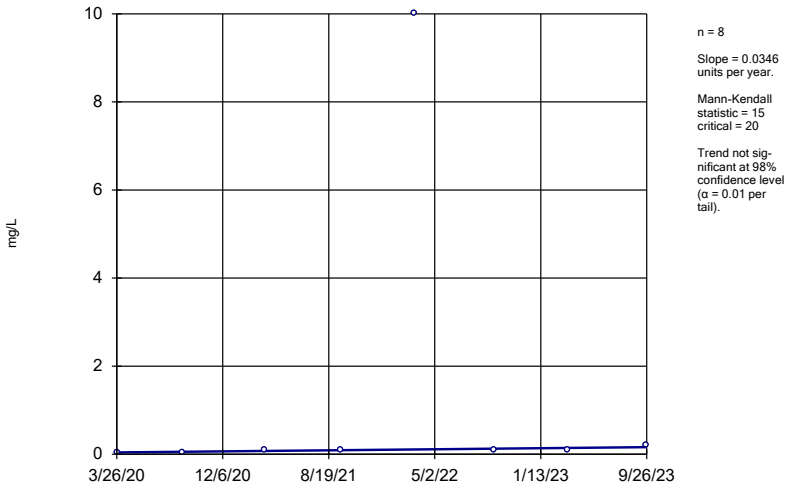
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 8

Slope = 0.0346 units per year.

Mann-Kendall statistic = 15 critical = 20

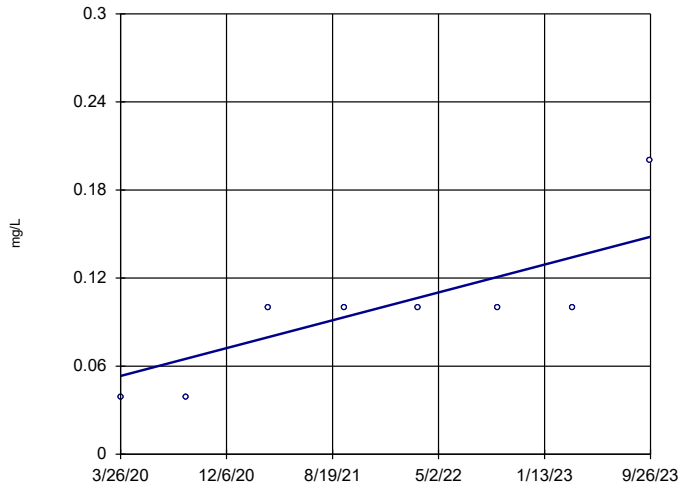
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.02706 units per year.

Mann-Kendall statistic = 17 critical = 20

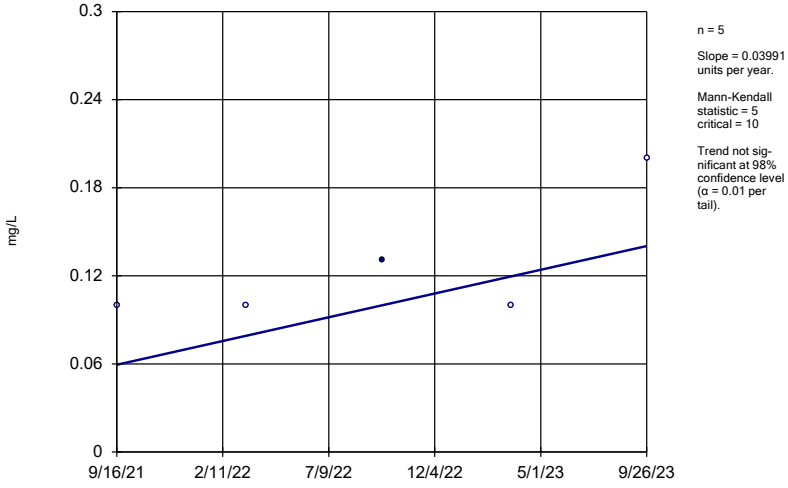
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0.03991 units per year.

Mann-Kendall statistic = 5 critical = 10

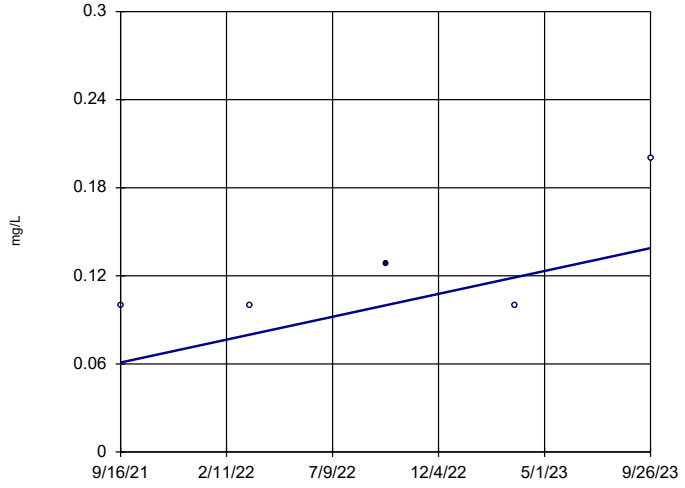
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0.03844 units per year.

Mann-Kendall statistic = 5 critical = 10

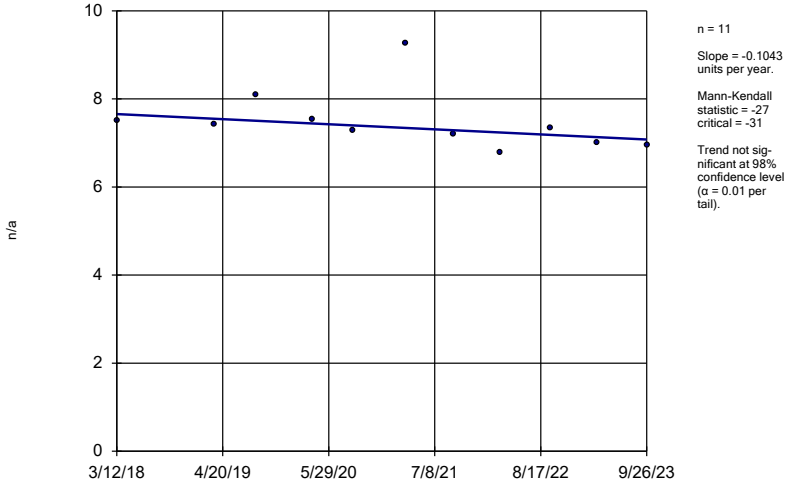
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Nitrite Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1A



n = 11

Slope = -0.1043 units per year.

Mann-Kendall statistic = -27 critical = -31

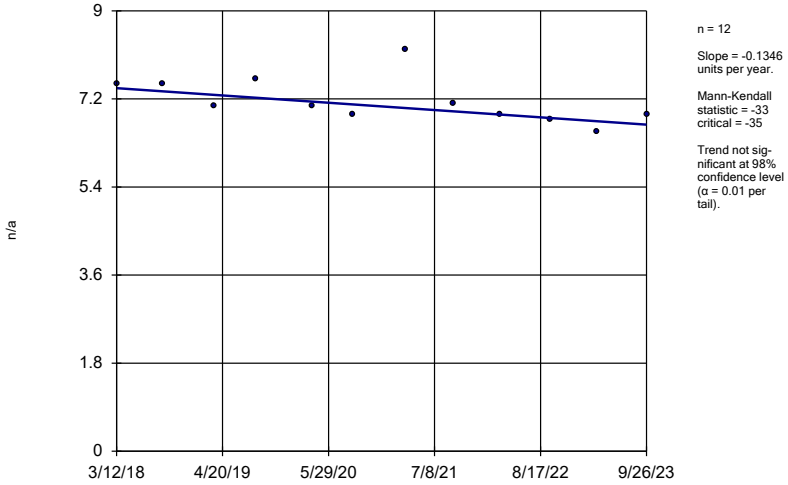
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -0.1346 units per year.

Mann-Kendall statistic = -33 critical = -35

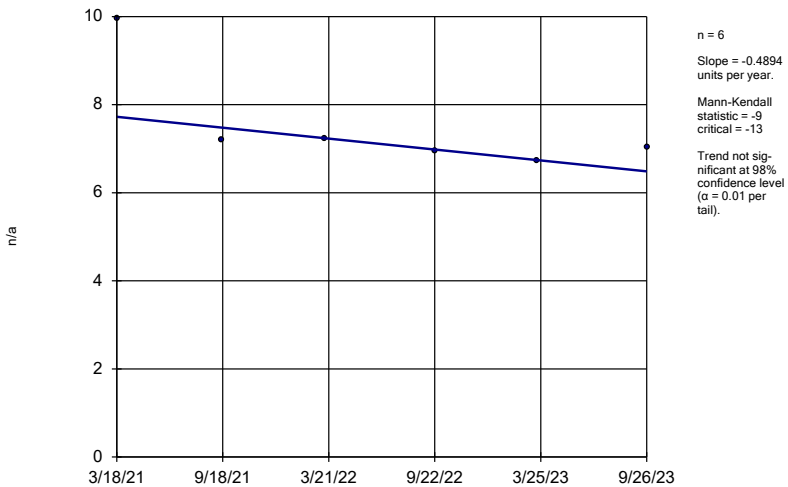
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-3L



n = 6

Slope = -0.4894 units per year.

Mann-Kendall statistic = -9 critical = -13

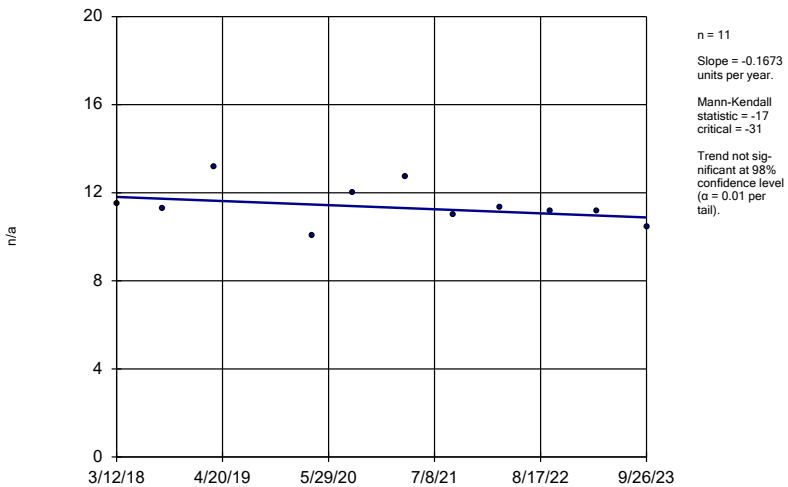
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-4



n = 11

Slope = -0.1673 units per year.

Mann-Kendall statistic = -17 critical = -31

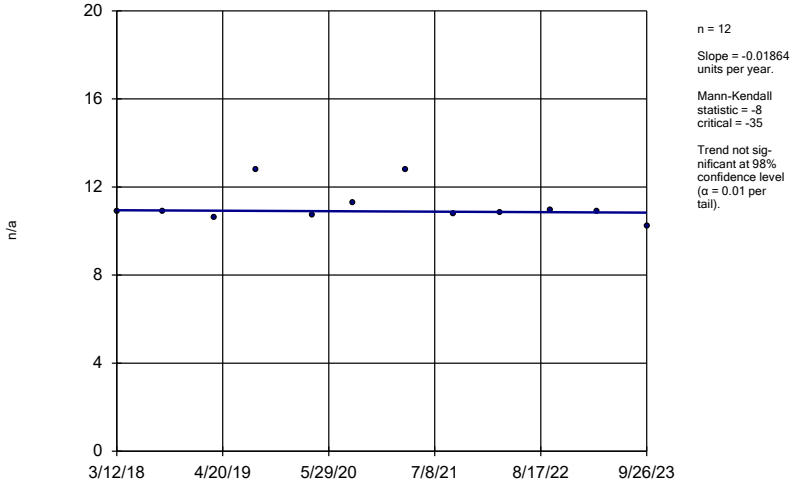
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.01864 units per year.

Mann-Kendall statistic = -8
critical = -35

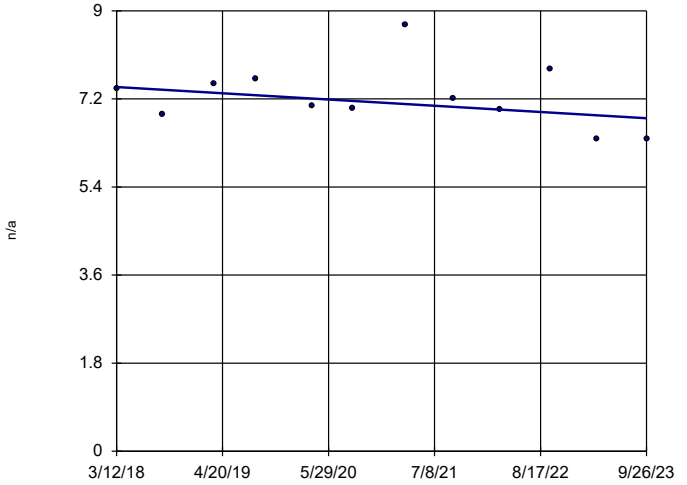
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-5



n = 12

Slope = -0.115 units per year.

Mann-Kendall statistic = -15
critical = -35

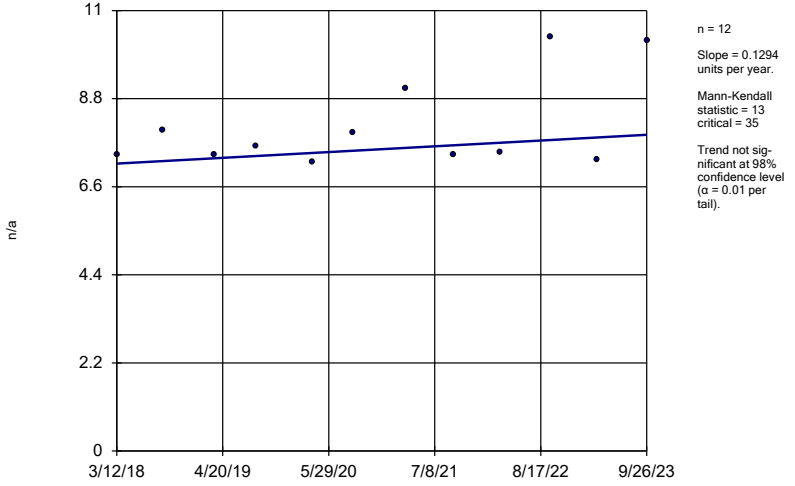
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.1294 units per year.

Mann-Kendall statistic = 13
critical = 35

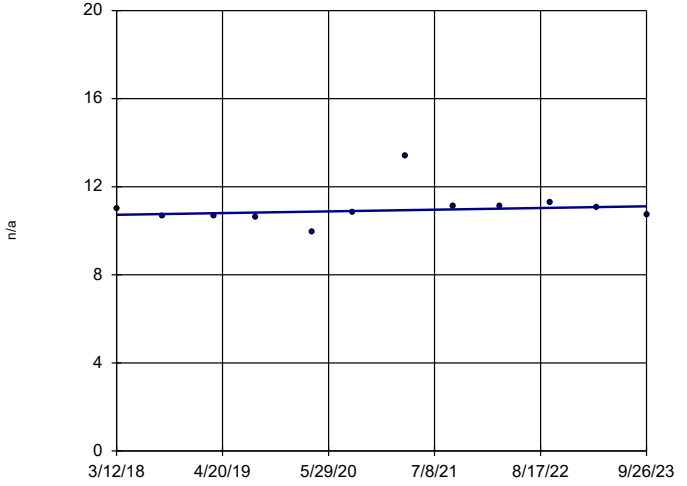
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-11



n = 12

Slope = 0.06956 units per year.

Mann-Kendall statistic = 16
critical = 35

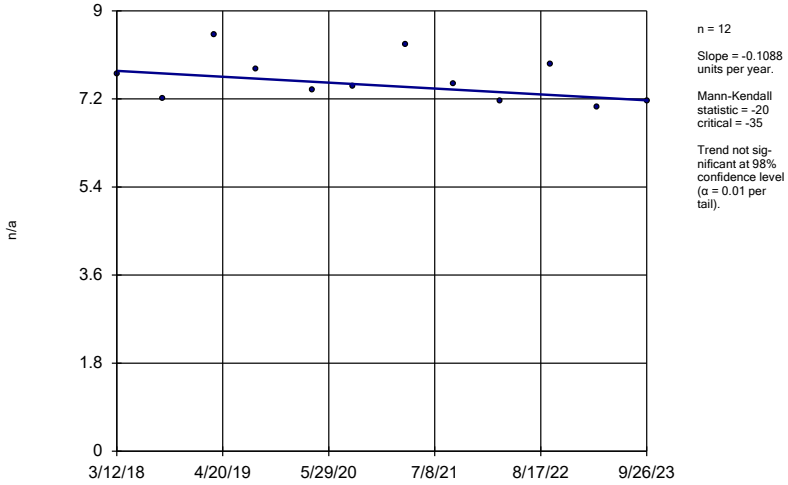
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = -0.1088 units per year.

Mann-Kendall statistic = -20 critical = -35

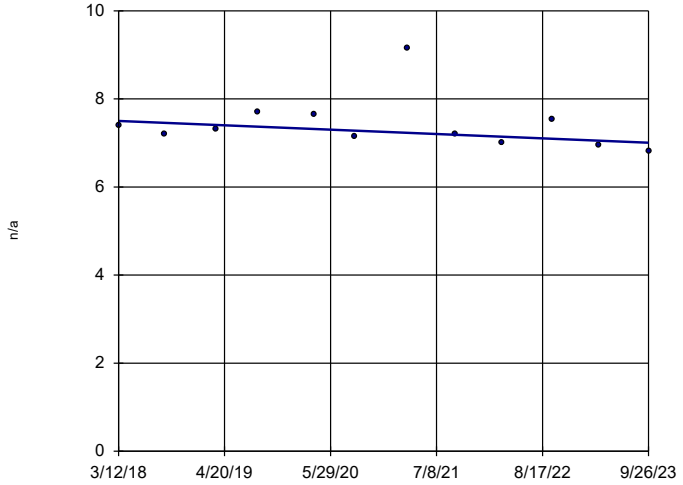
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-2A



n = 12

Slope = -0.08903 units per year.

Mann-Kendall statistic = -25 critical = -35

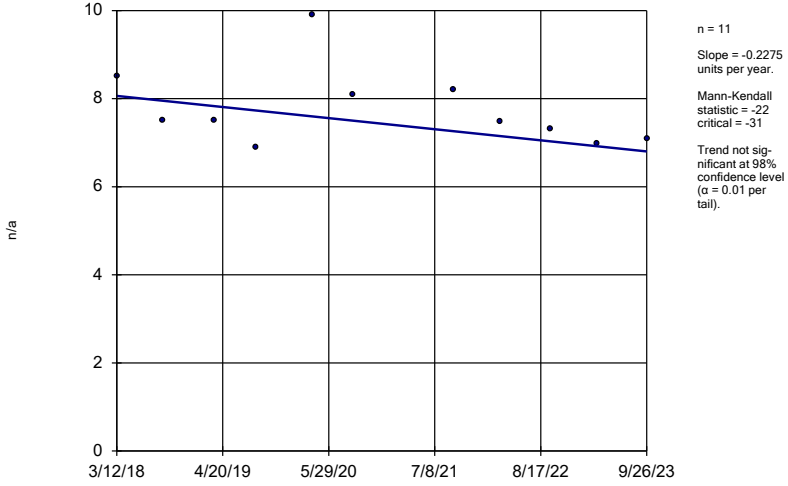
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.2275 units per year.

Mann-Kendall statistic = -22 critical = -31

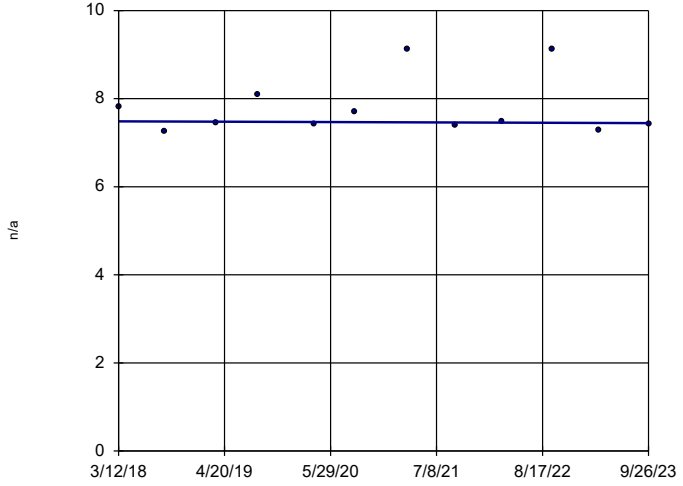
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-14



n = 12

Slope = -0.006612 units per year.

Mann-Kendall statistic = -2 critical = -35

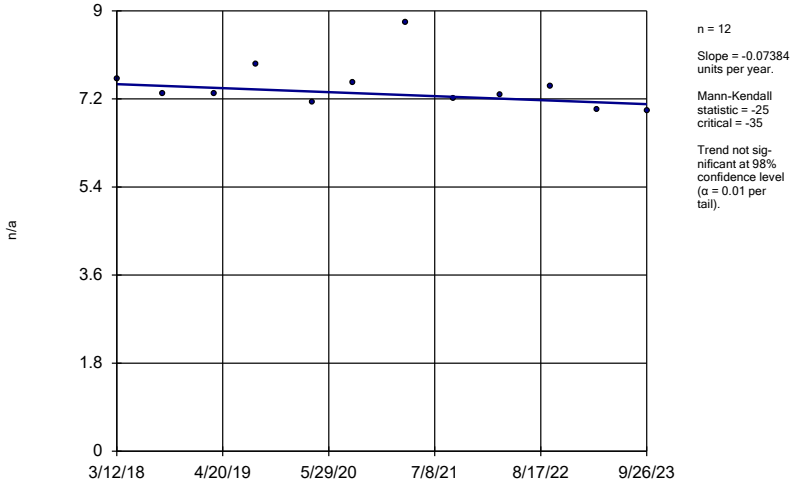
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = -0.07384 units per year.

Mann-Kendall statistic = -25
critical = -35

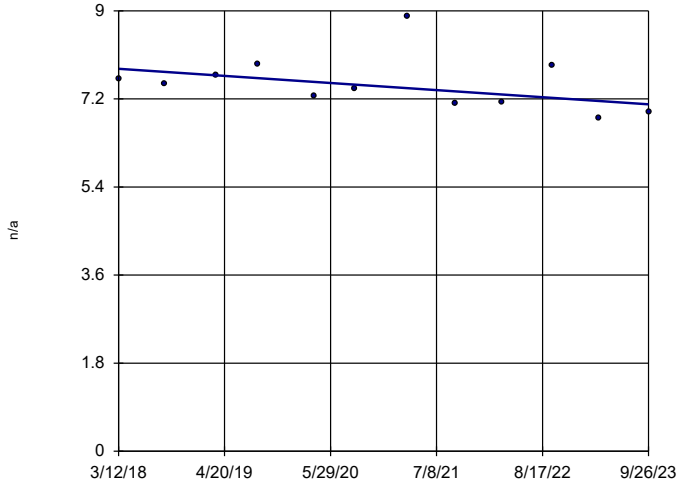
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16



n = 12

Slope = -0.1311 units per year.

Mann-Kendall statistic = -24
critical = -35

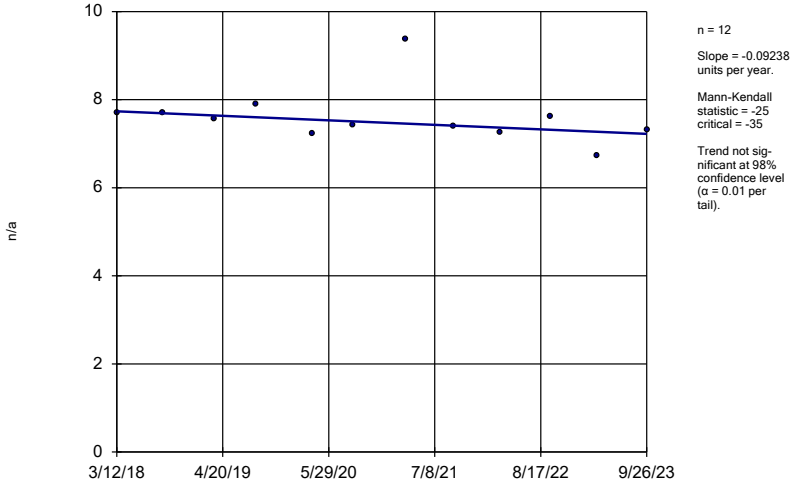
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.09238 units per year.

Mann-Kendall statistic = -25
critical = -35

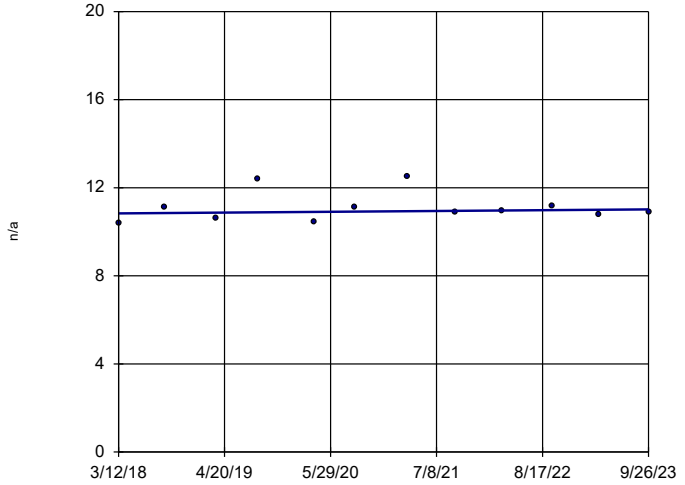
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-18



n = 12

Slope = 0.03341 units per year.

Mann-Kendall statistic = 9
critical = 35

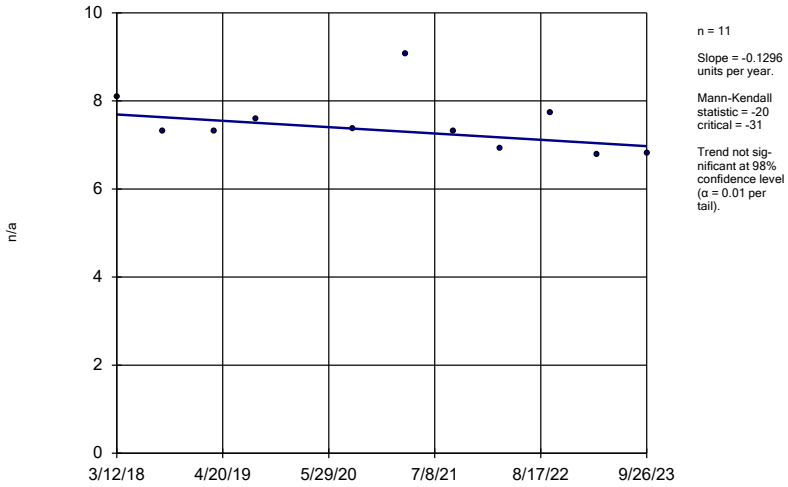
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 11

Slope = -0.1296 units per year.

Mann-Kendall statistic = -20
critical = -31

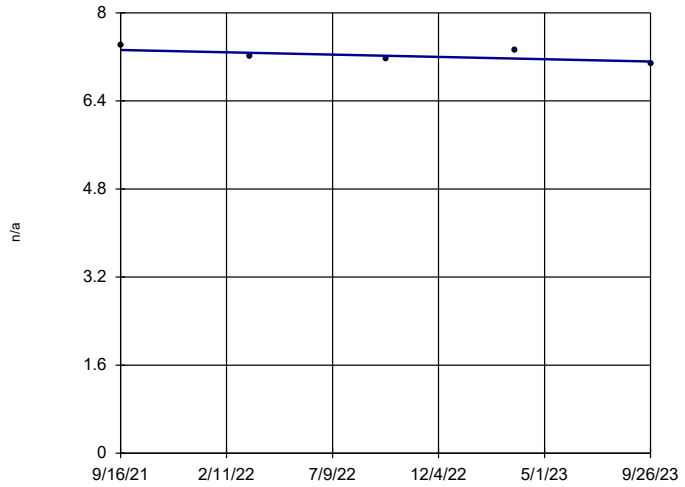
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-20



n = 5

Slope = -0.103 units per year.

Mann-Kendall statistic = -6
critical = -10

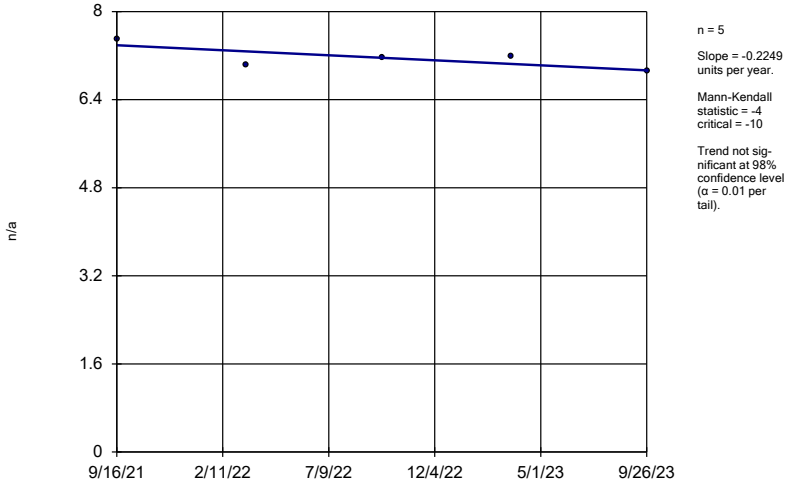
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21



n = 5

Slope = -0.2249 units per year.

Mann-Kendall statistic = -4
critical = -10

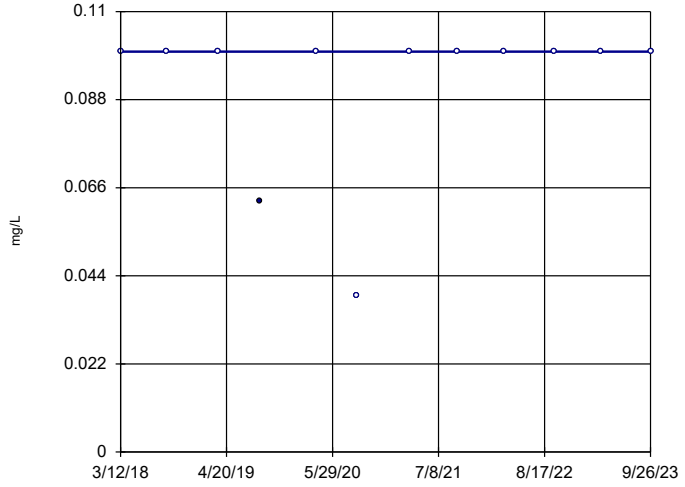
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

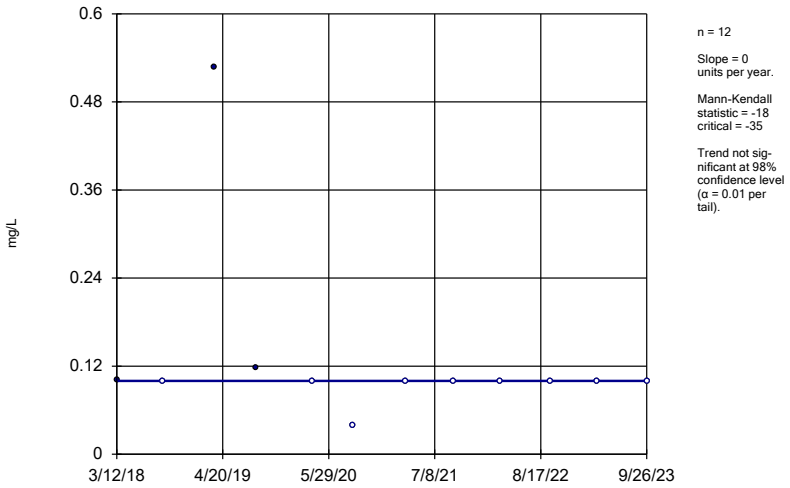
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -18
critical = -35

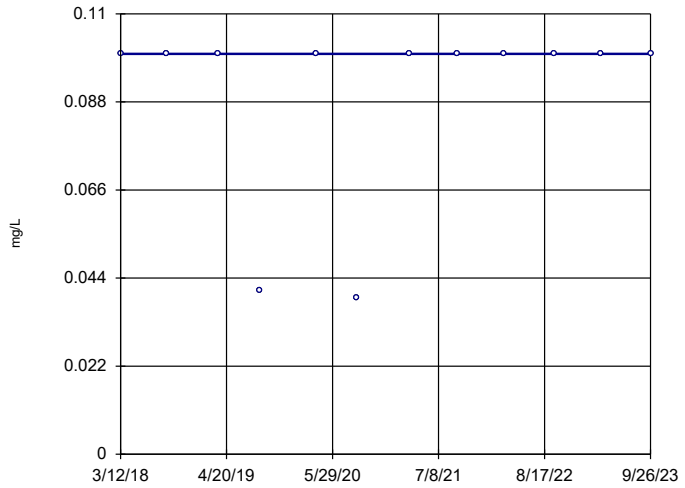
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

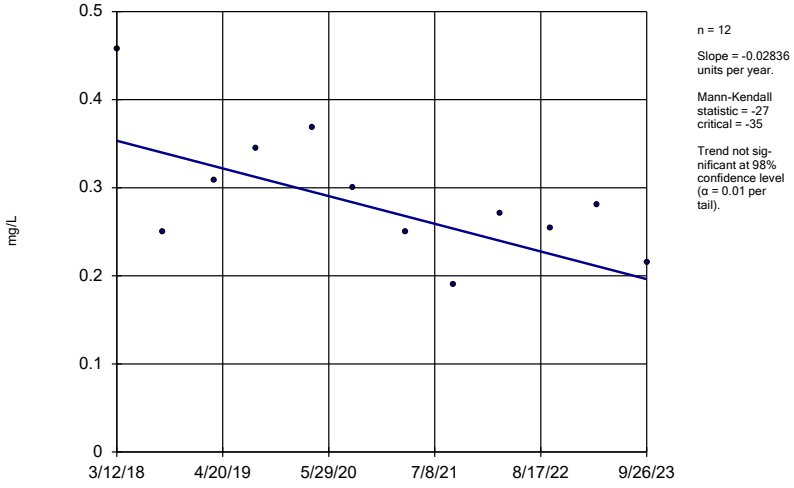
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.02836 units per year.

Mann-Kendall statistic = -27
critical = -35

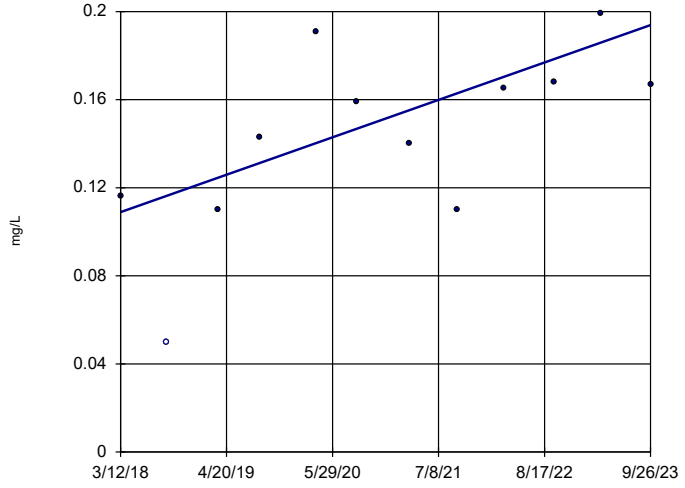
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0.01532 units per year.

Mann-Kendall statistic = 33
critical = 35

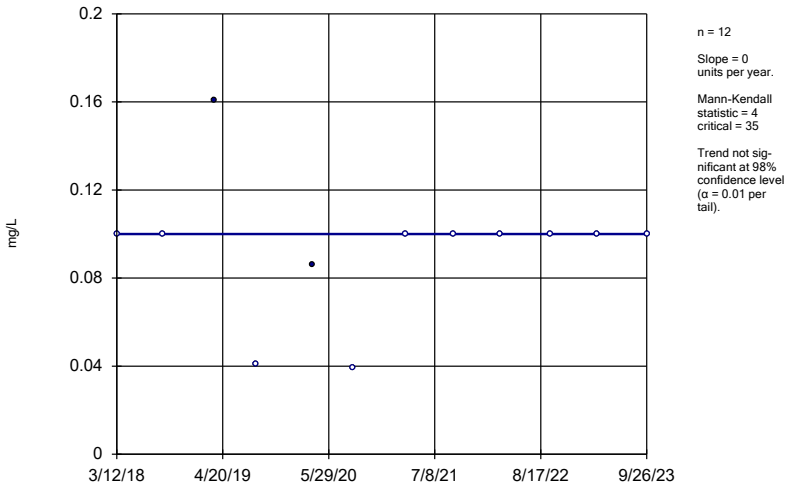
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 4
critical = 35

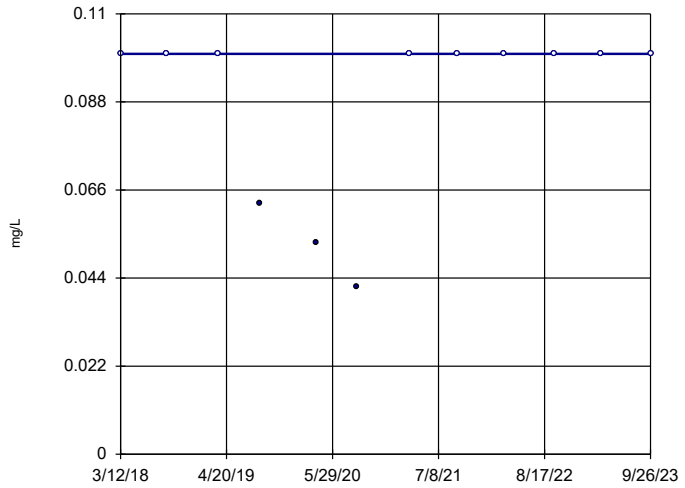
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:54 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

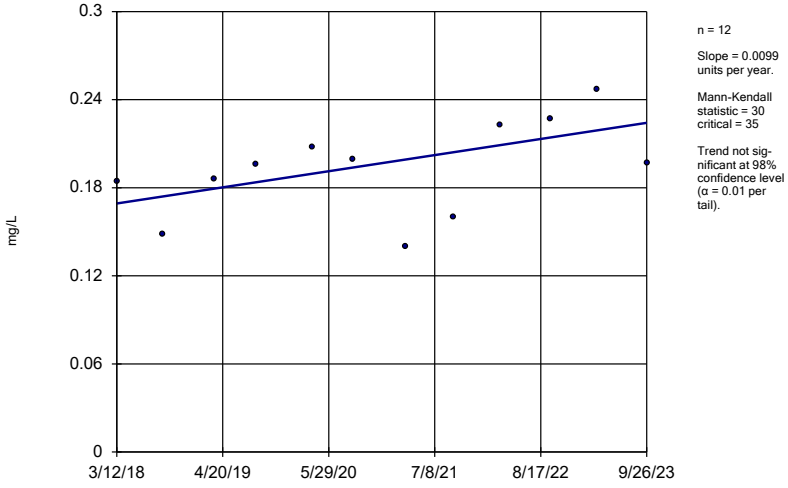
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-11



n = 12

Slope = 0.0099 units per year.

Mann-Kendall statistic = 30
critical = 35

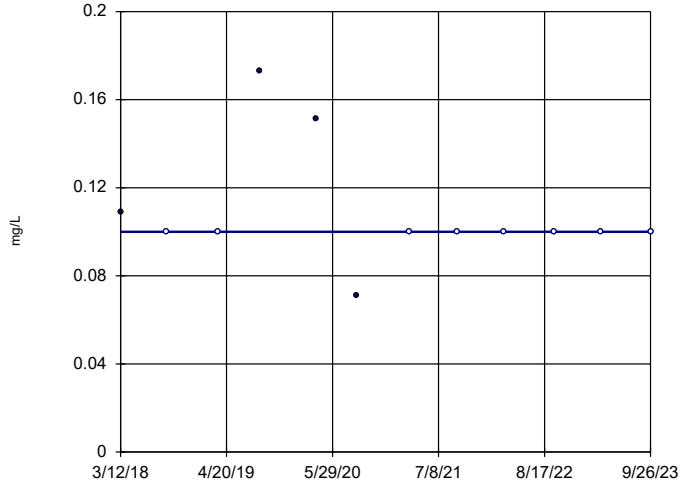
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -14
critical = -35

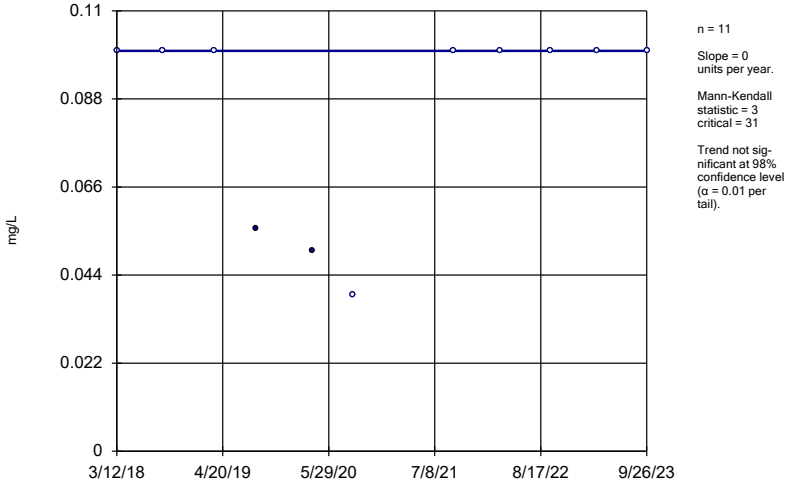
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 31

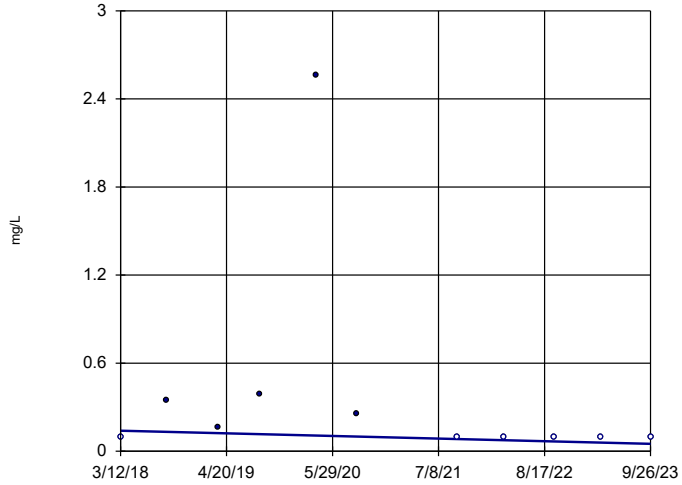
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.01621 units per year.

Mann-Kendall statistic = -18
critical = -31

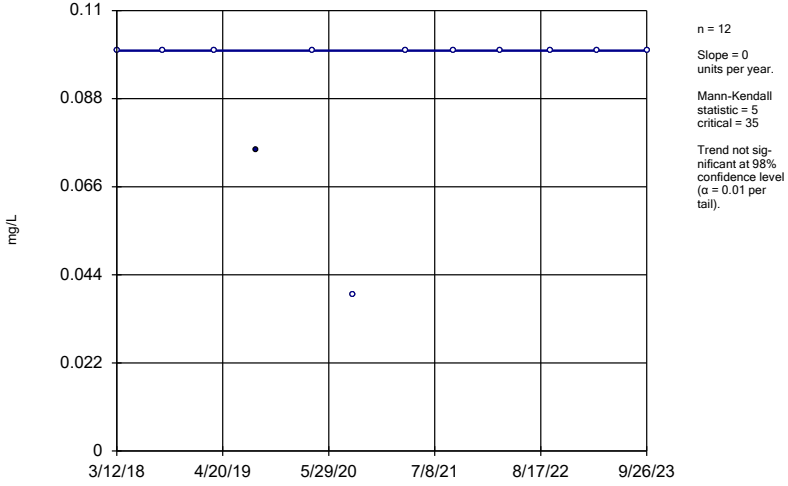
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

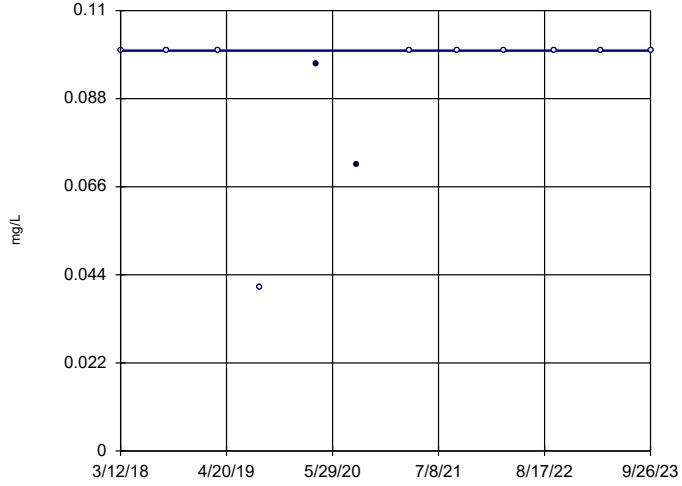
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 10
critical = 35

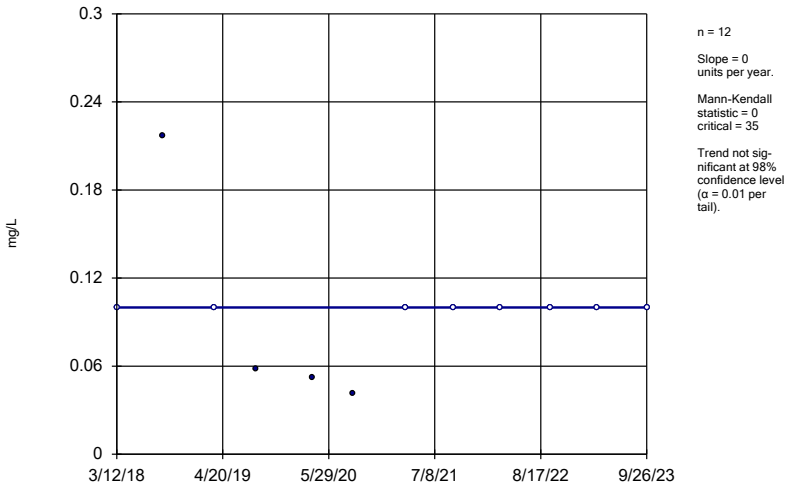
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 35

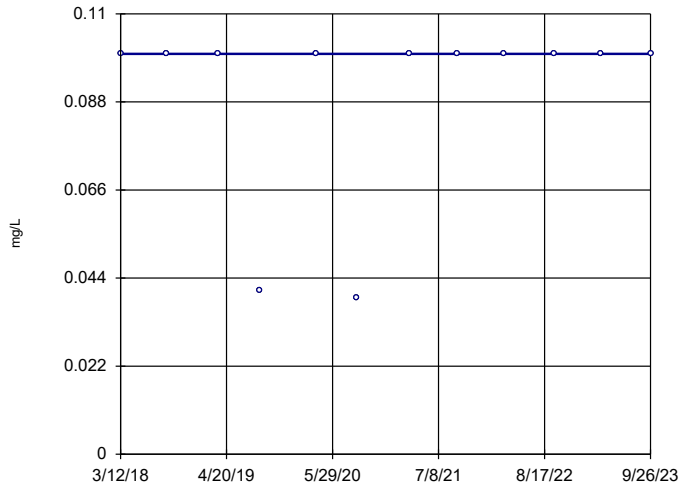
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5 critical = 35

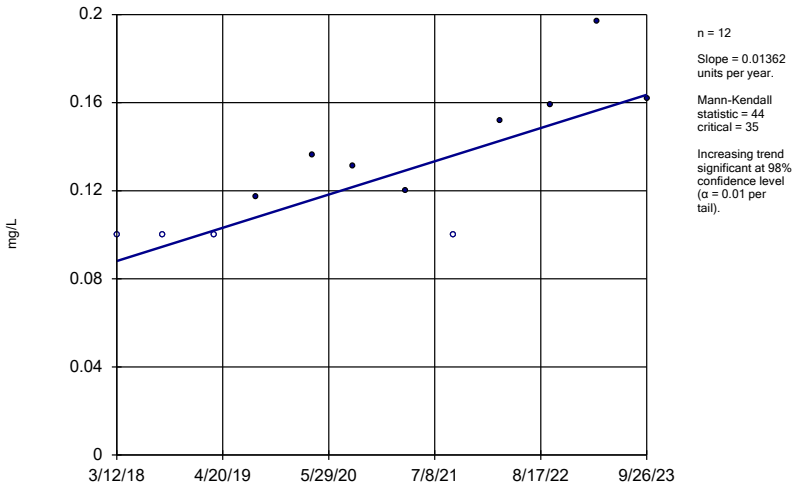
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.01362 units per year.

Mann-Kendall statistic = 44 critical = 35

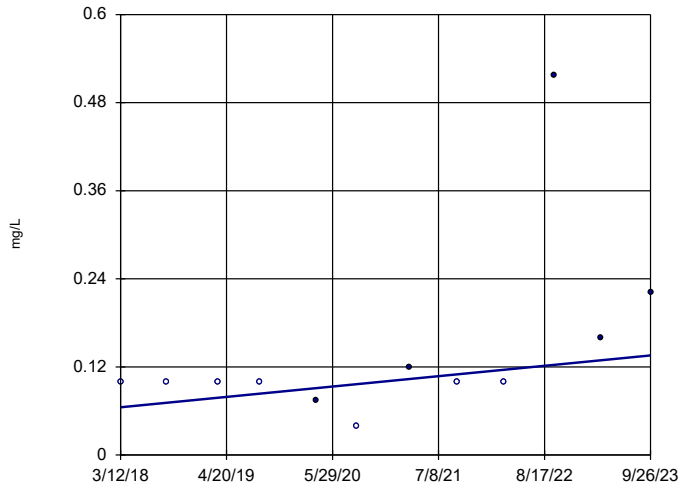
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0.01276 units per year.

Mann-Kendall statistic = 25 critical = 35

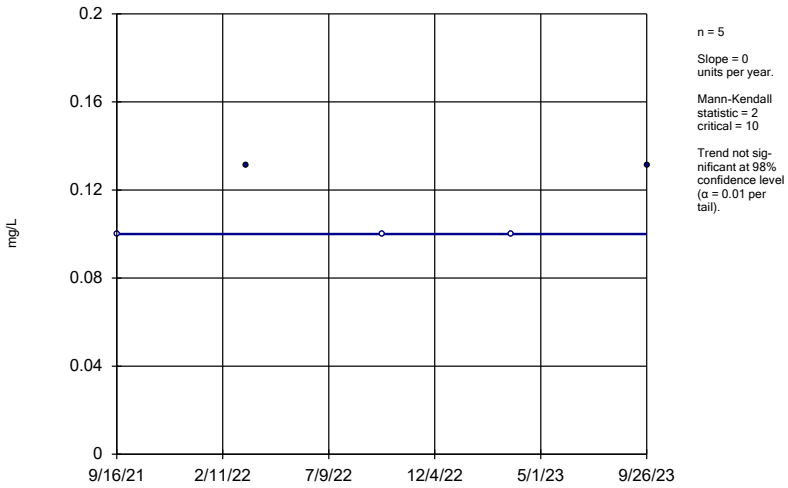
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20

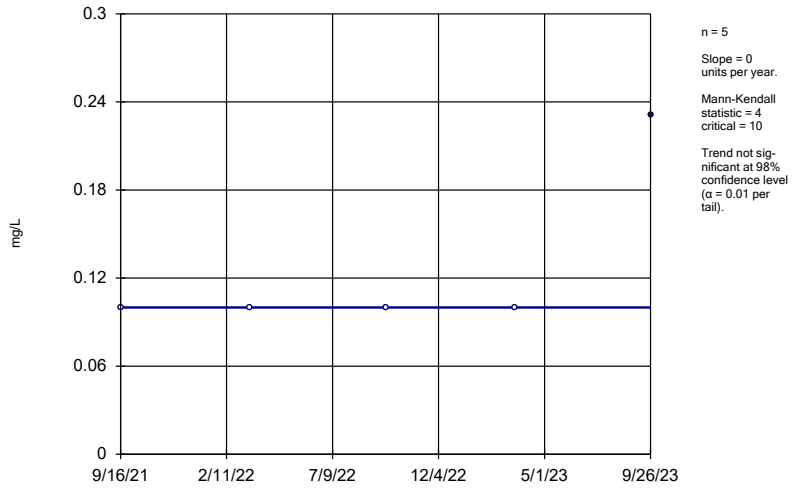


Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

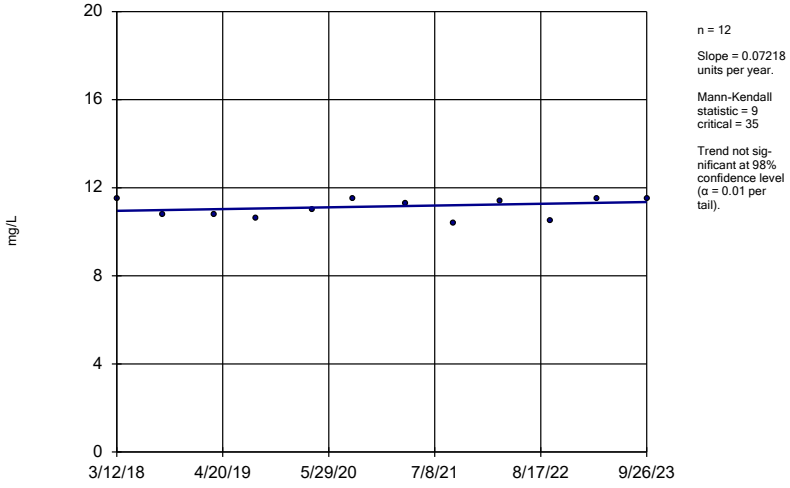


Constituent: Phosphorus Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A

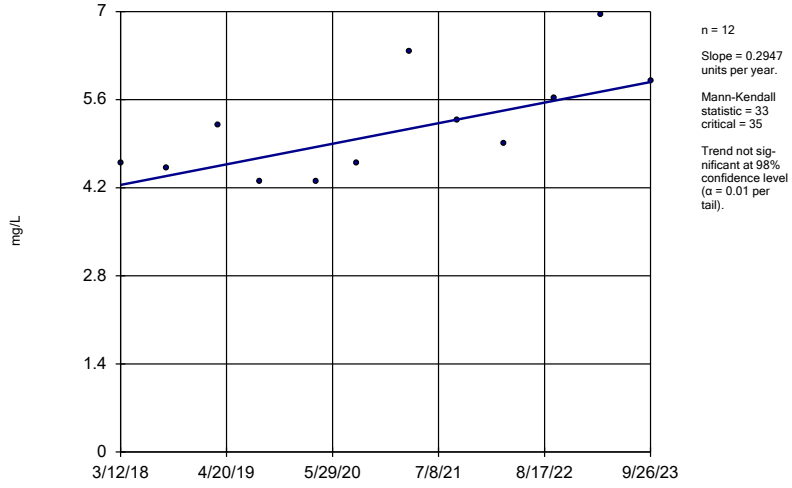


Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1B (bg)

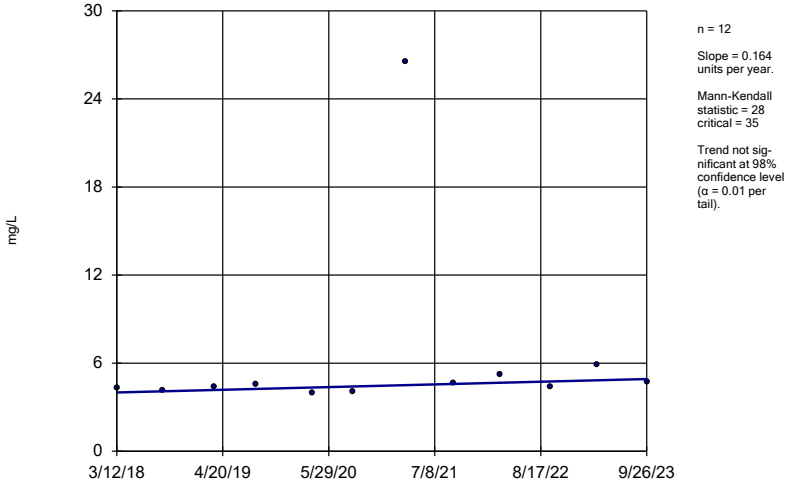


Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-3L



n = 12

Slope = 0.164 units per year.

Mann-Kendall statistic = 28 critical = 35

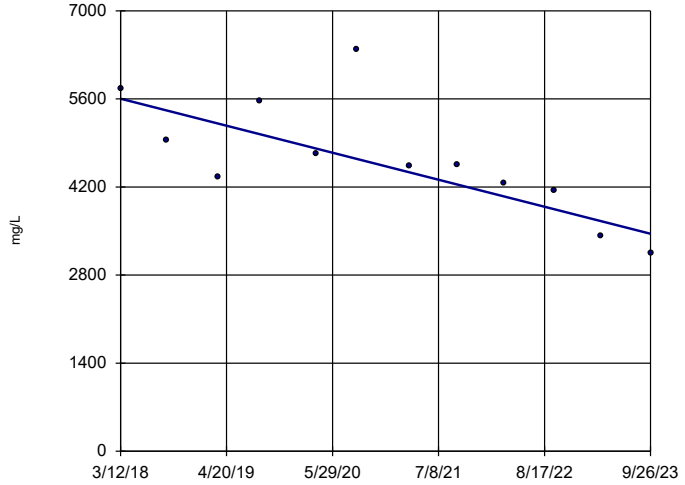
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-4



n = 12

Slope = -386.9 units per year.

Mann-Kendall statistic = -44 critical = -35

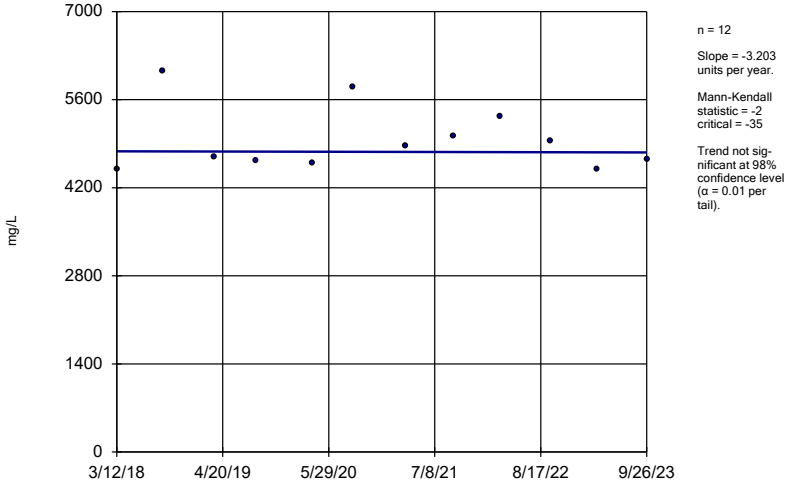
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4L



n = 12

Slope = -3.203 units per year.

Mann-Kendall statistic = -2 critical = -35

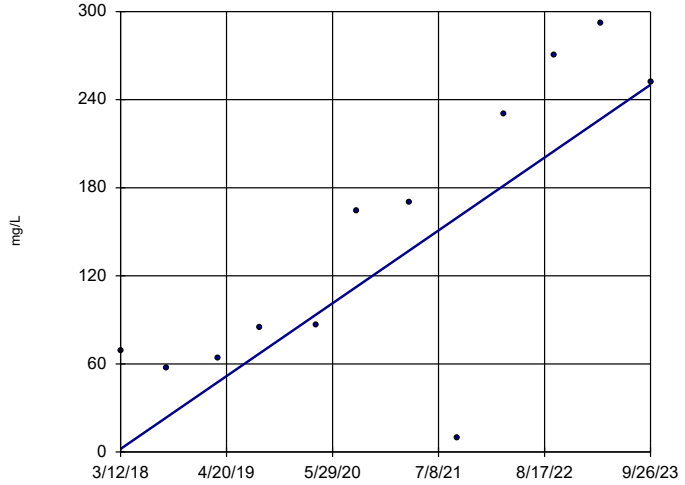
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-5



n = 12

Slope = 44.73 units per year.

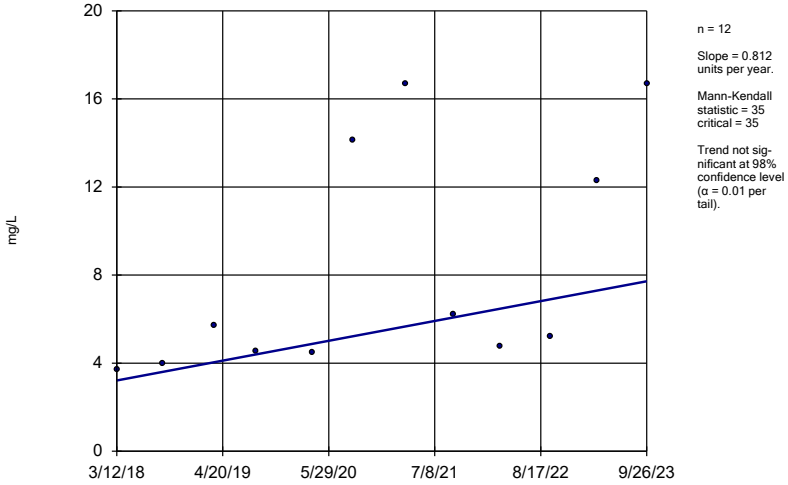
Mann-Kendall statistic = 44 critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.812 units per year.

Mann-Kendall statistic = 35 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

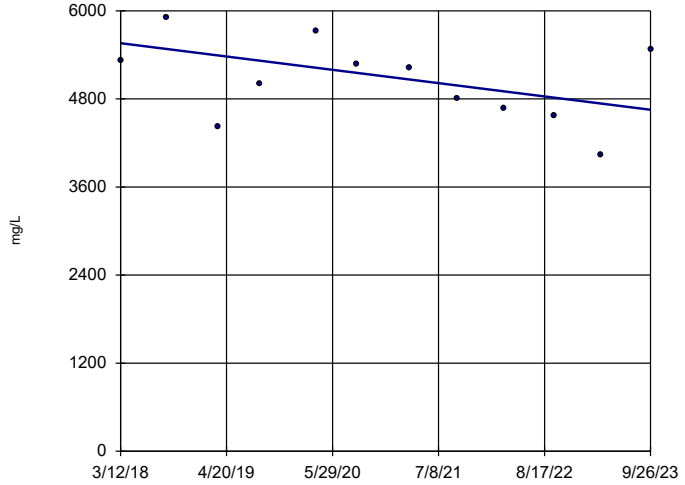
Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-11



n = 12

Slope = -163.7 units per year.

Mann-Kendall statistic = -24 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

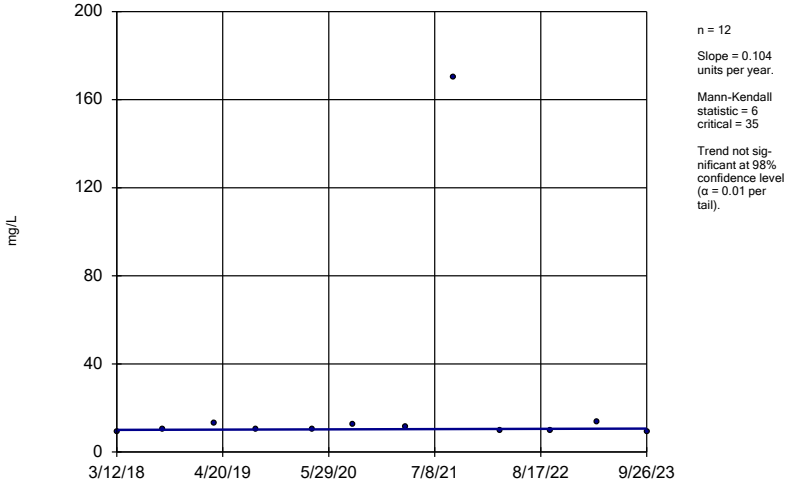
Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = 0.104 units per year.

Mann-Kendall statistic = 6 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

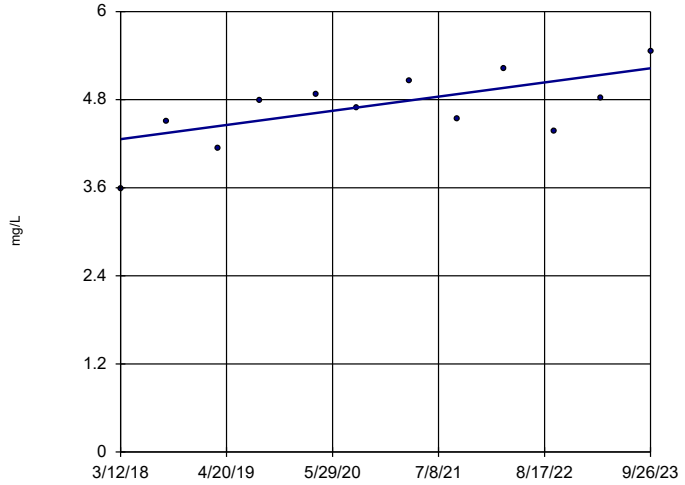
Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0.174 units per year.

Mann-Kendall statistic = 32 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

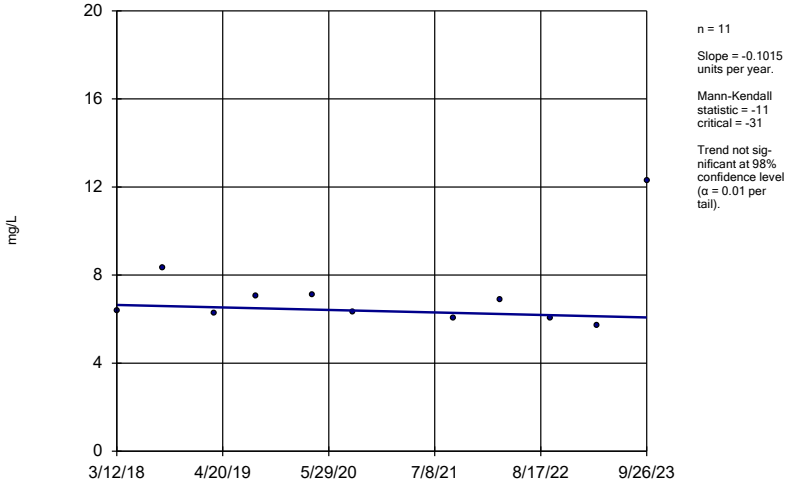
Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = -0.1015 units per year.

Mann-Kendall statistic = -11 critical = -31

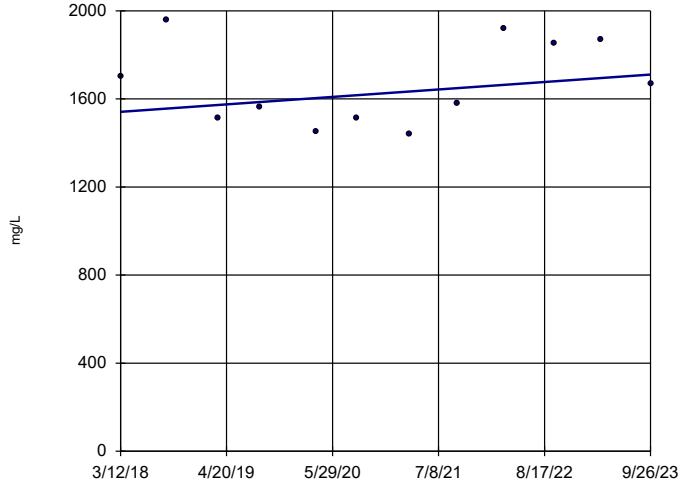
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-14



n = 12

Slope = 30.52 units per year.

Mann-Kendall statistic = 7 critical = 35

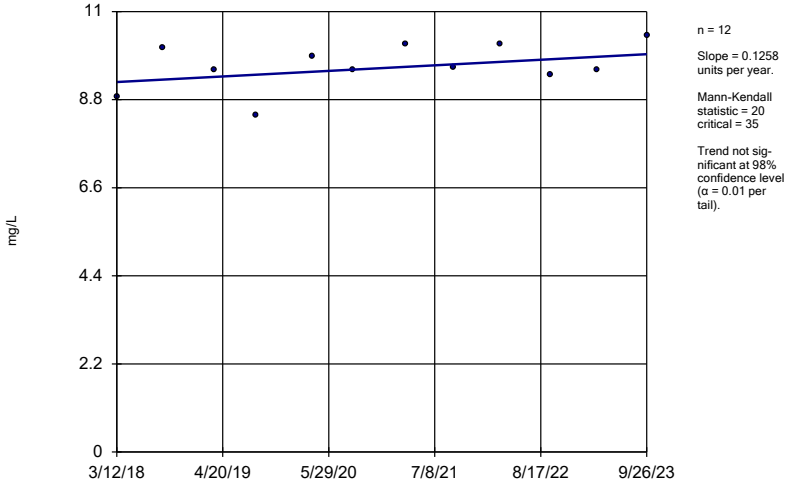
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.1258 units per year.

Mann-Kendall statistic = 20 critical = 35

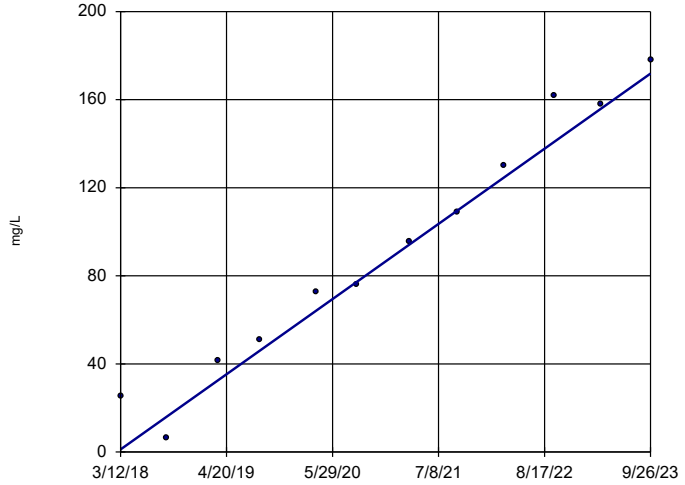
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16



n = 12

Slope = 30.77 units per year.

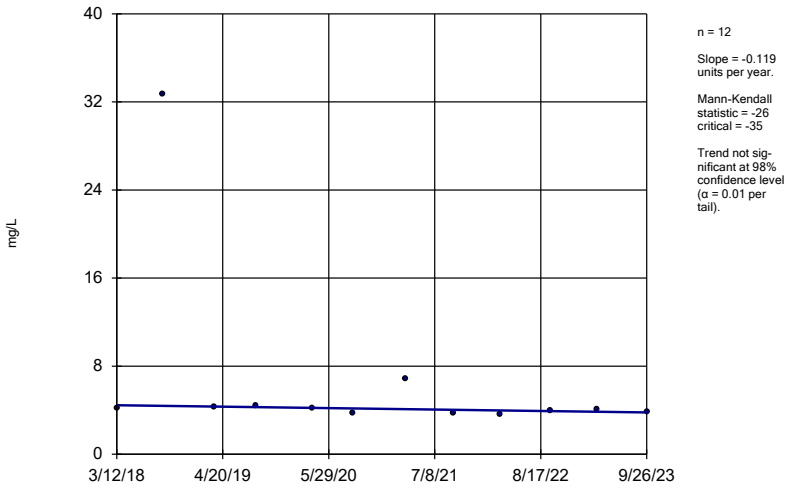
Mann-Kendall statistic = 62 critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.119 units per year.

Mann-Kendall statistic = -26
critical = -35

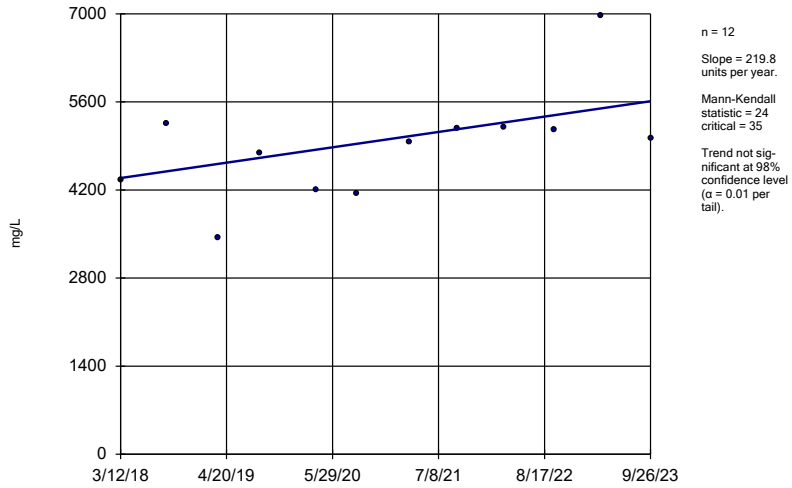
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-18



n = 12

Slope = 219.8 units per year.

Mann-Kendall statistic = 24
critical = 35

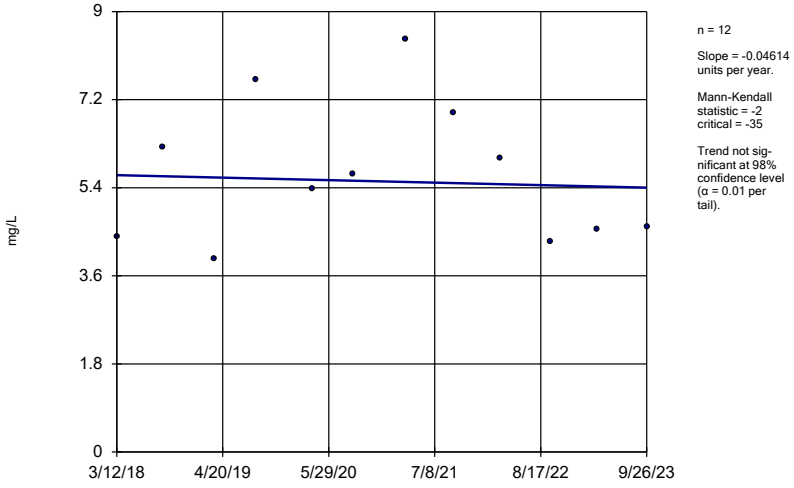
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = -0.04614 units per year.

Mann-Kendall statistic = -2
critical = -35

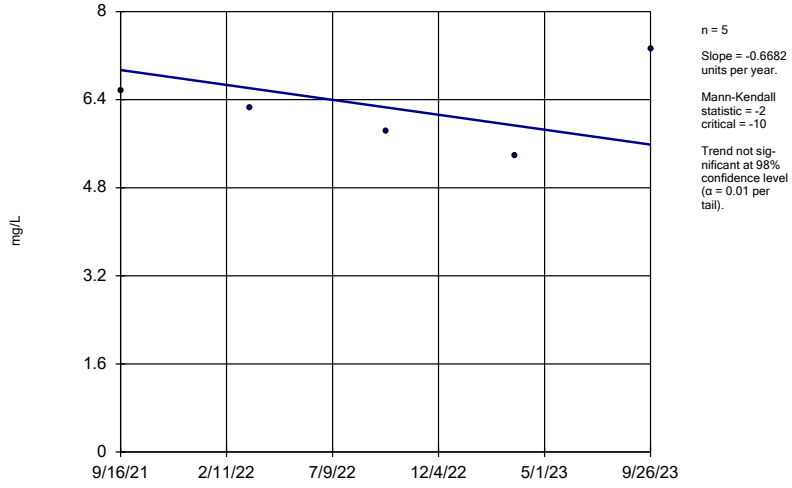
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20



n = 5

Slope = -0.6682 units per year.

Mann-Kendall statistic = -2
critical = -10

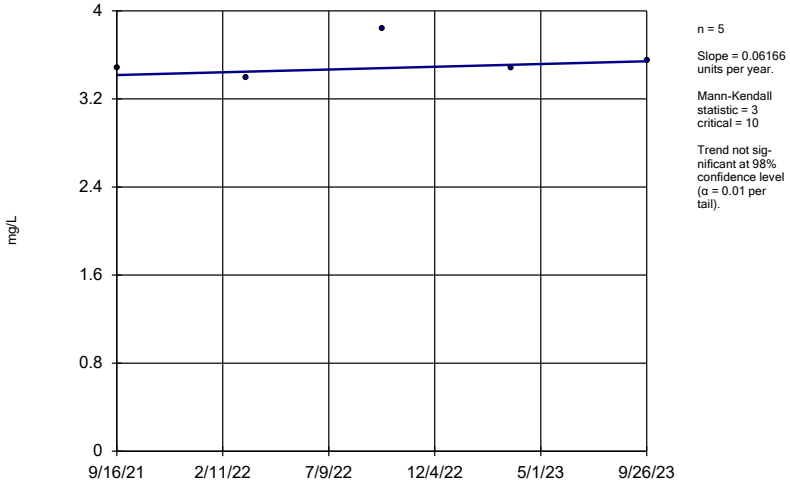
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21

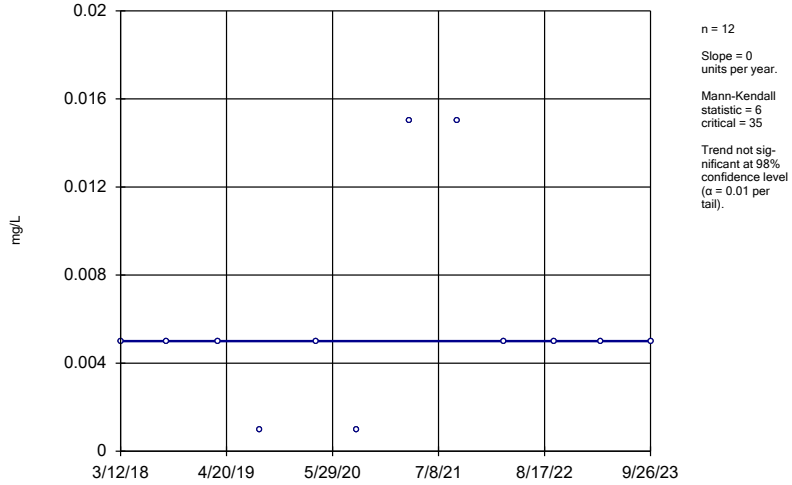


Constituent: Potassium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

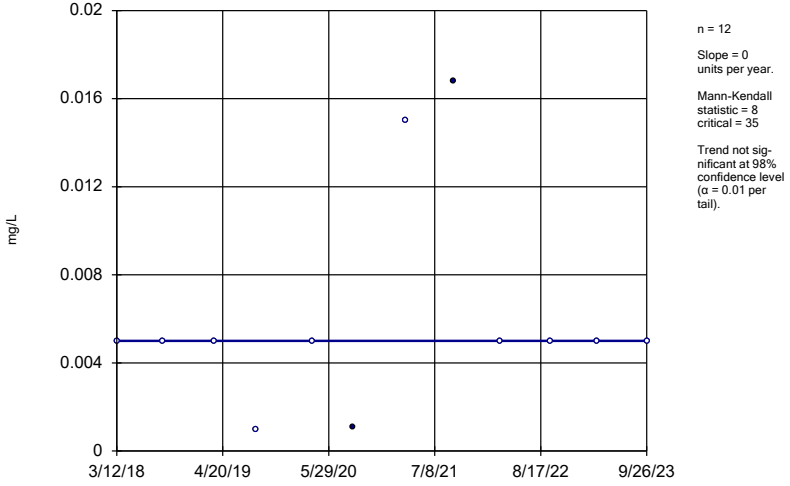


Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

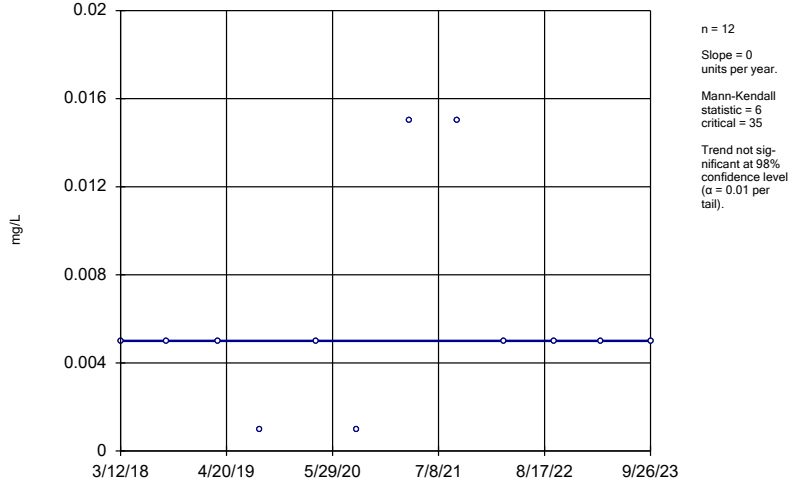


Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

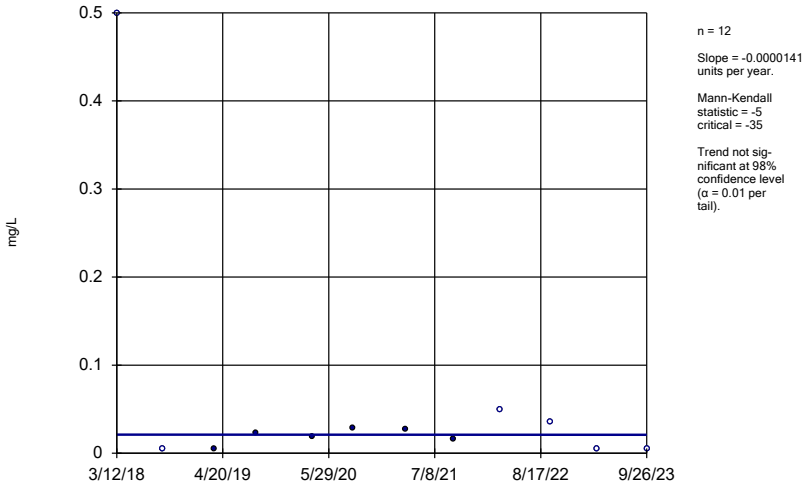


Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.0000141 units per year.

Mann-Kendall statistic = -5
critical = -35

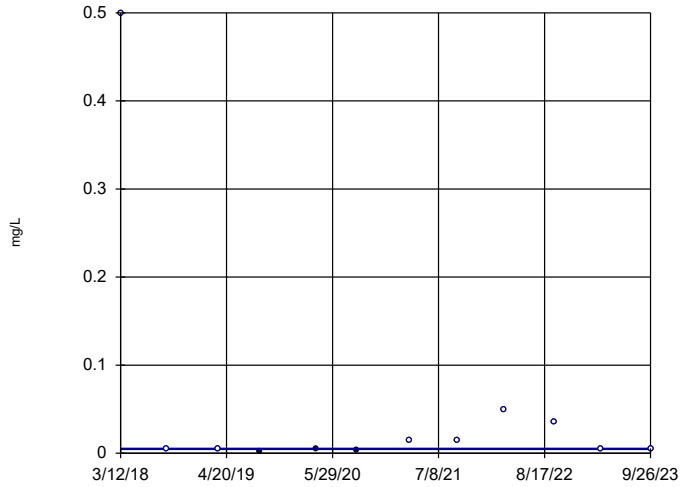
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

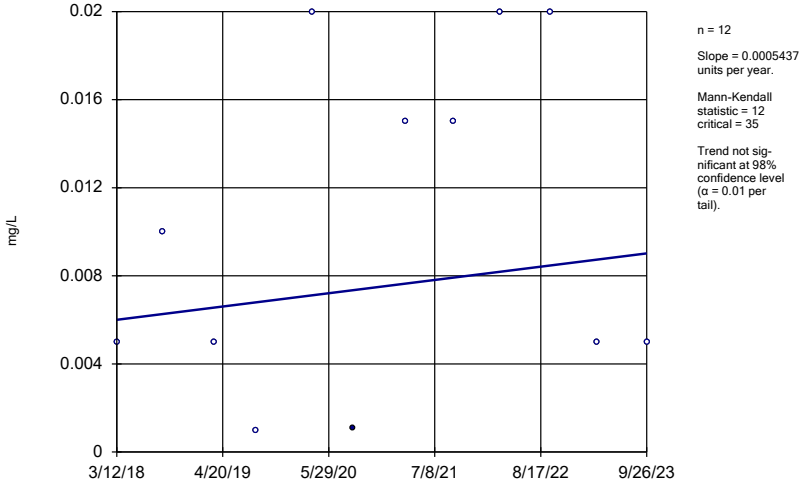
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.0005437 units per year.

Mann-Kendall statistic = 12
critical = 35

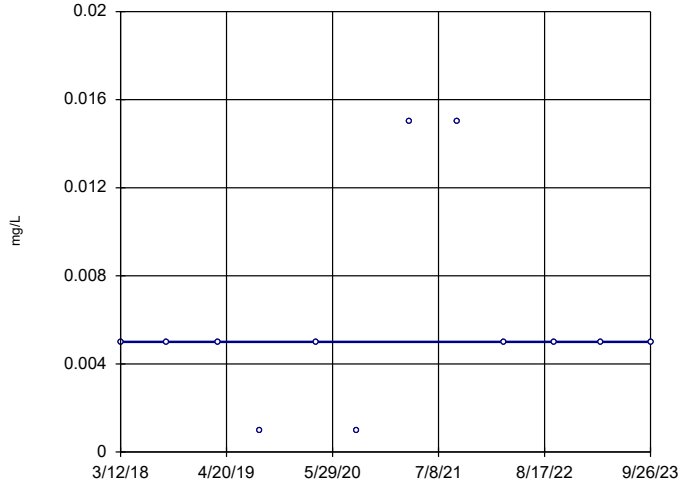
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

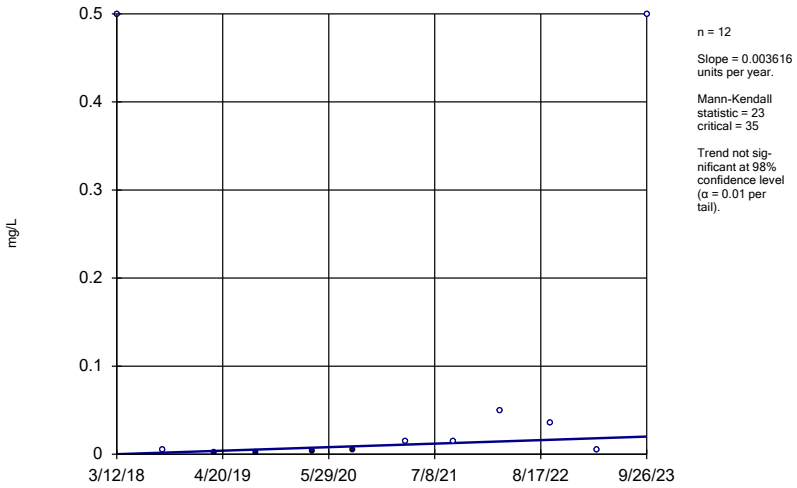
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.003616 units per year.

Mann-Kendall statistic = 23
critical = 35

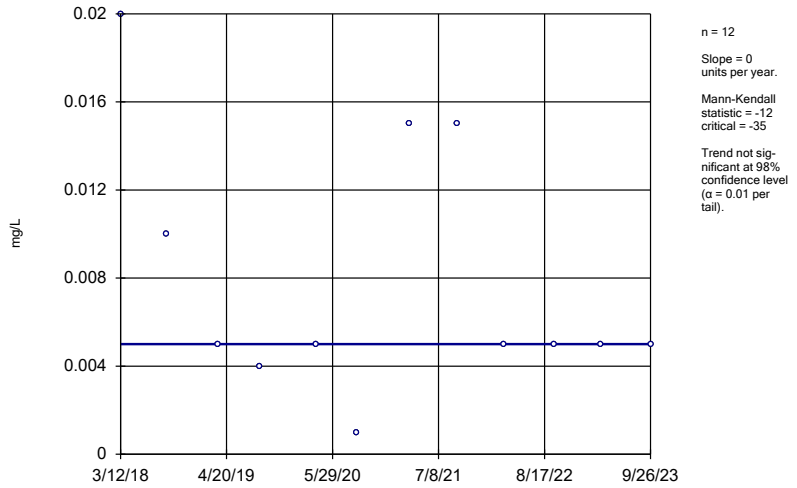
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -12
critical = -35

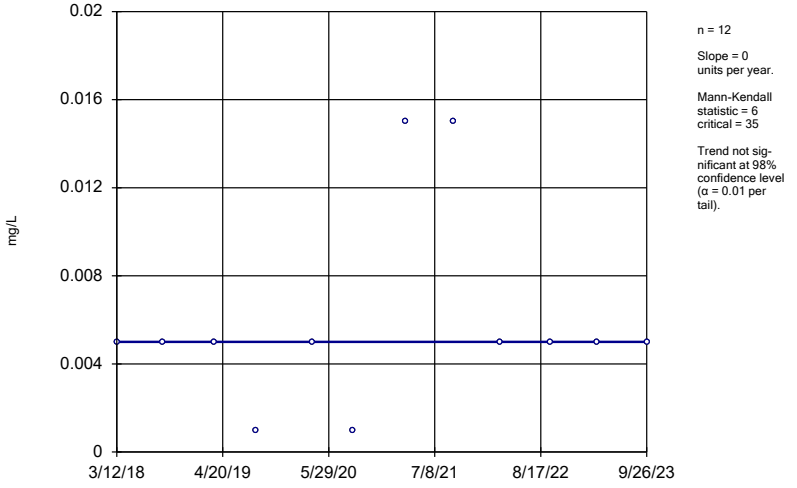
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

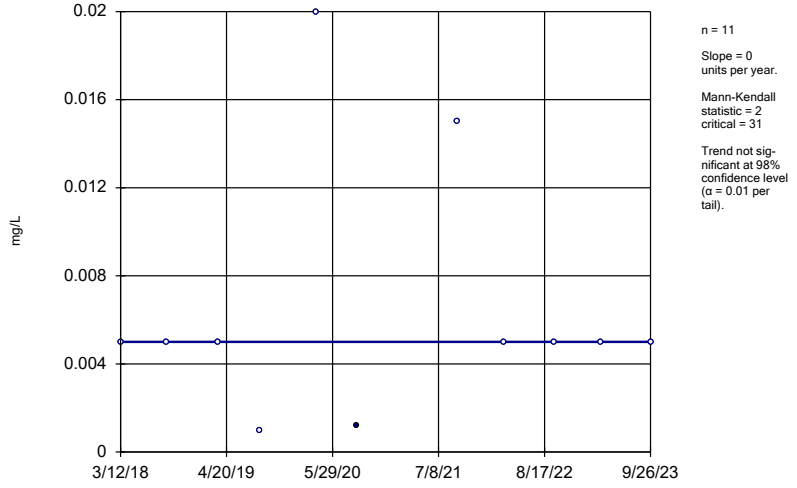
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 31

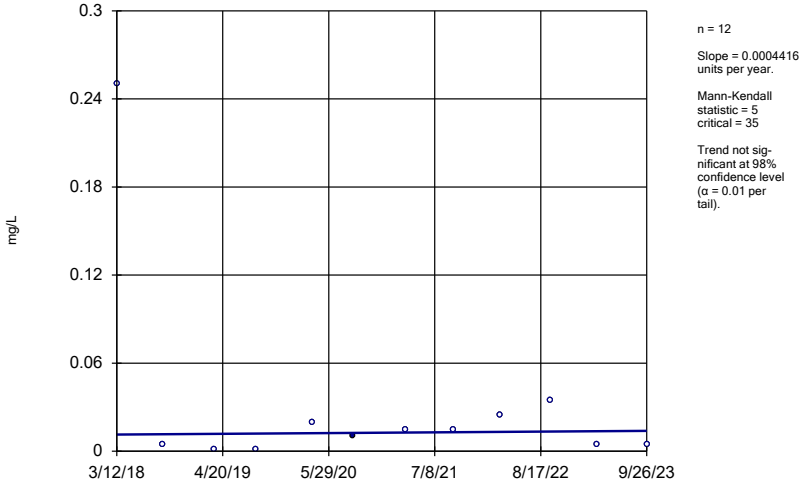
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0.0004416 units per year.

Mann-Kendall statistic = 5
critical = 35

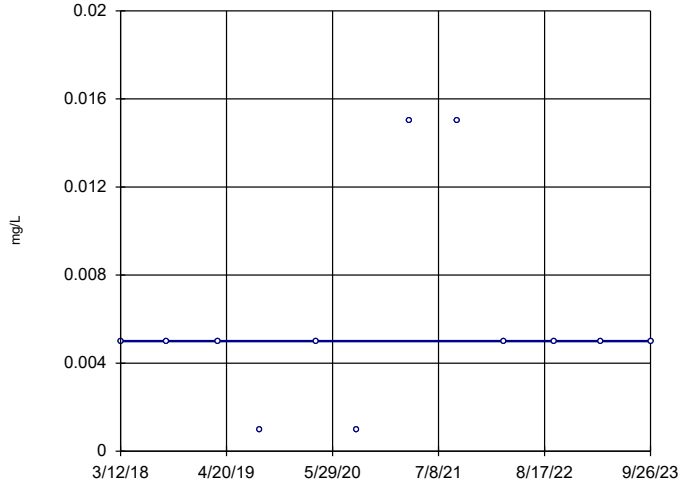
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

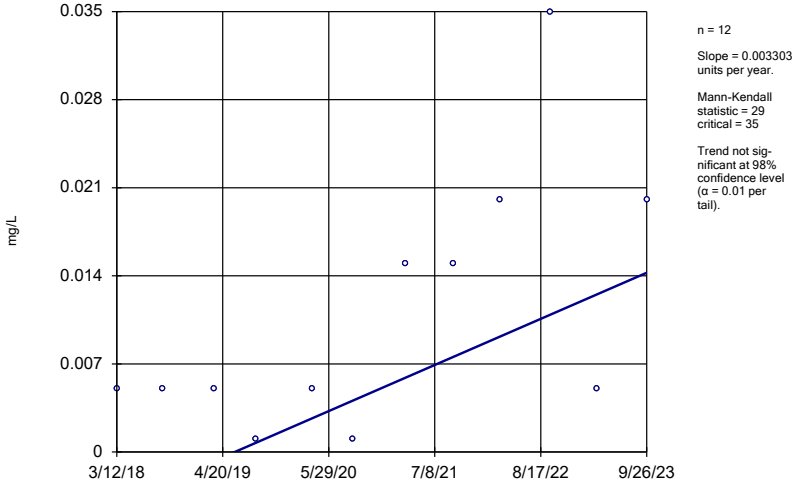
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.003303 units per year.

Mann-Kendall statistic = 29
critical = 35

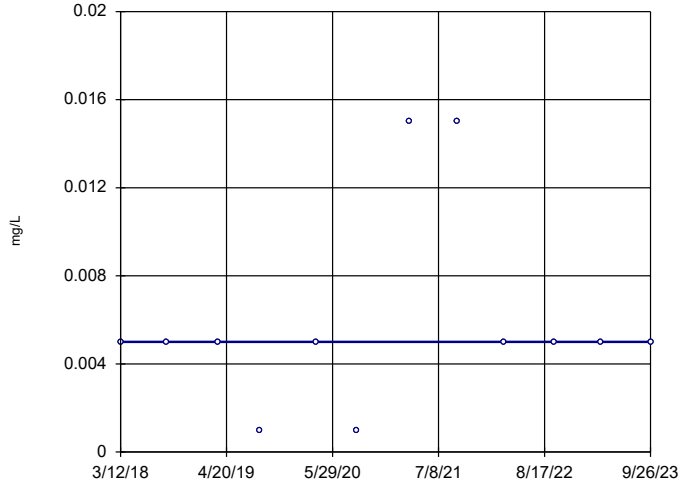
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

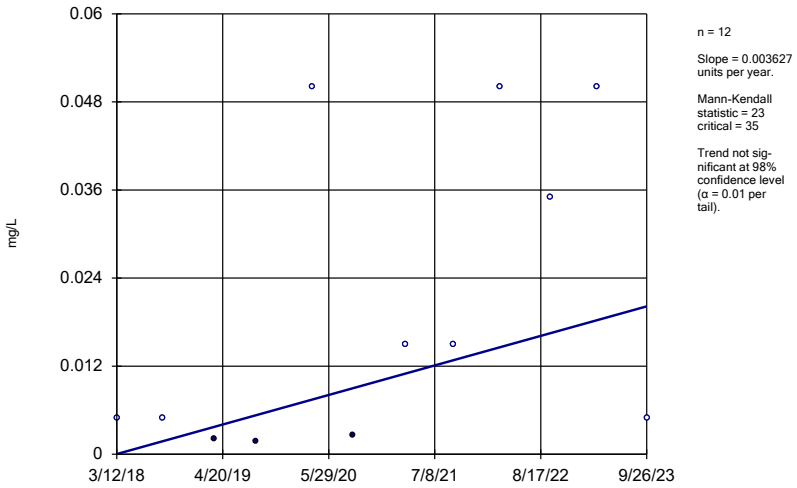
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.003627 units per year.

Mann-Kendall statistic = 23
critical = 35

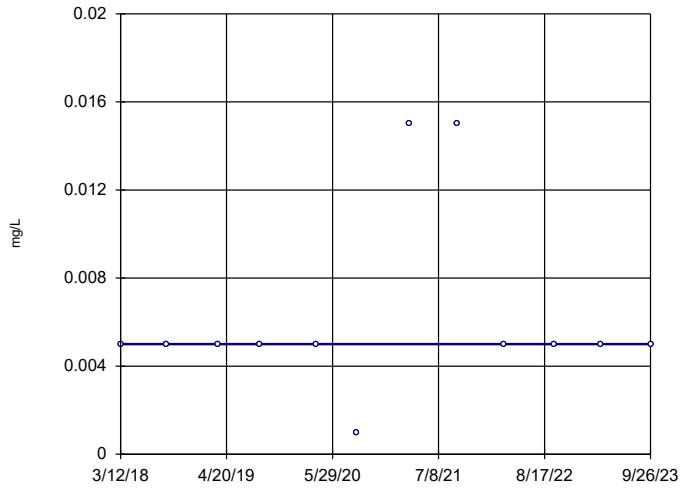
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 35

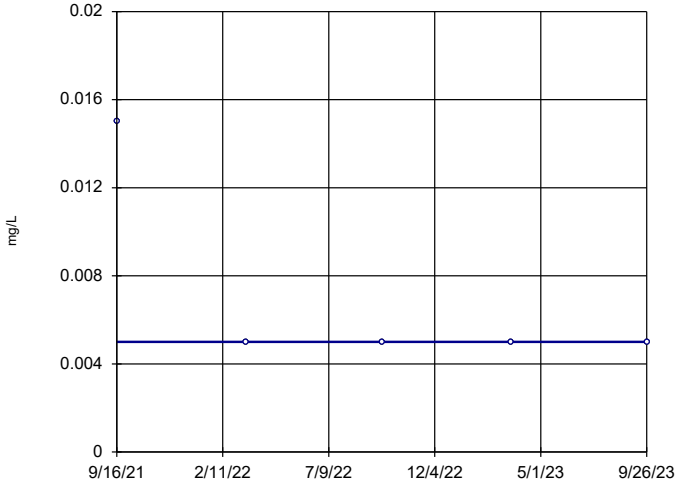
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

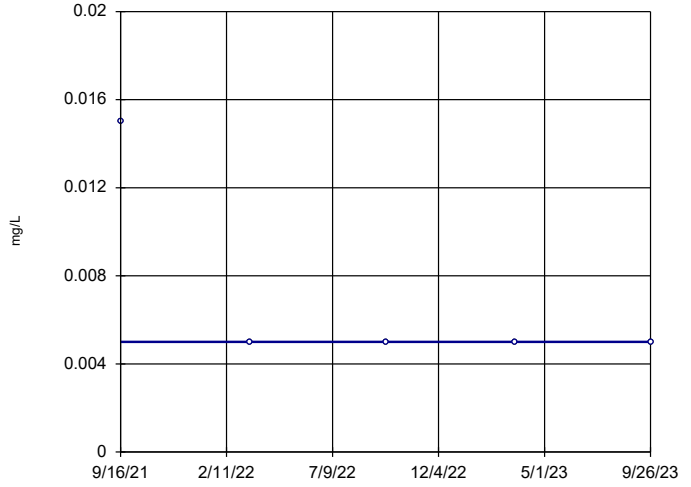
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

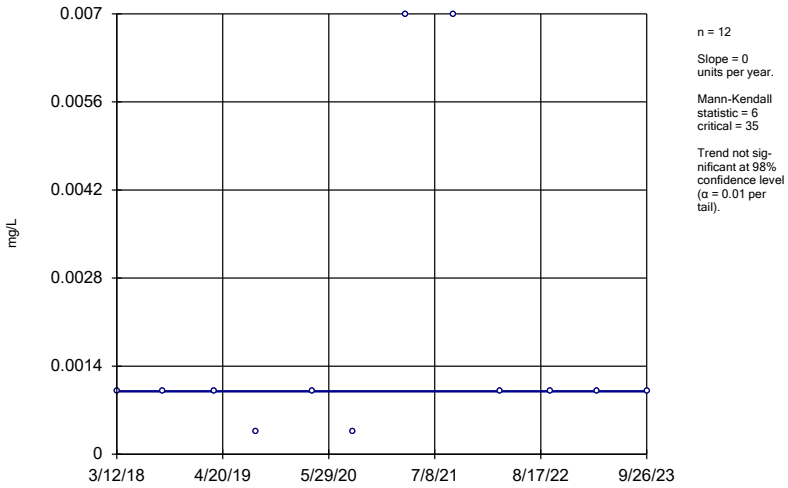
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Selenium Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

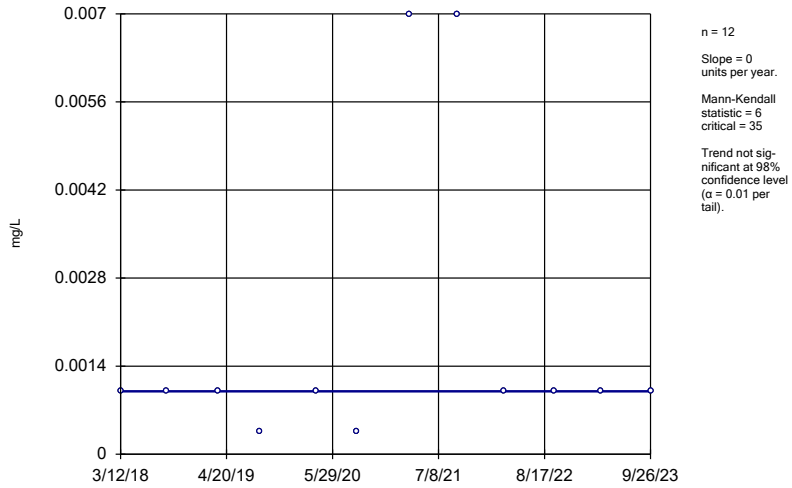


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

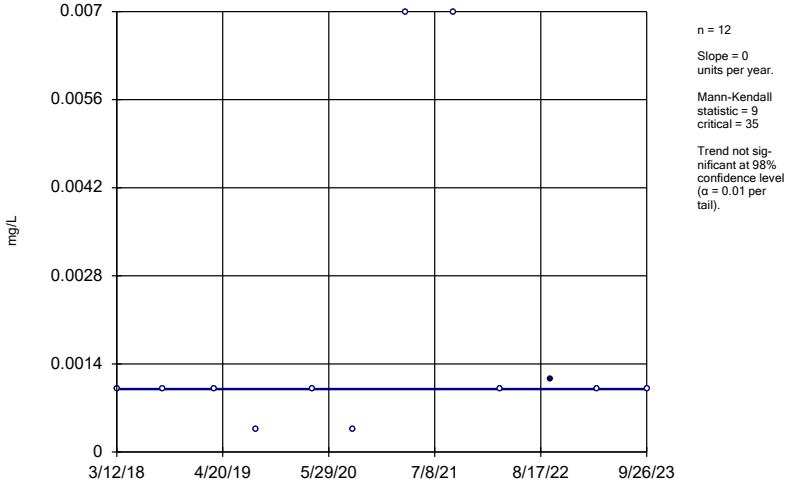


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

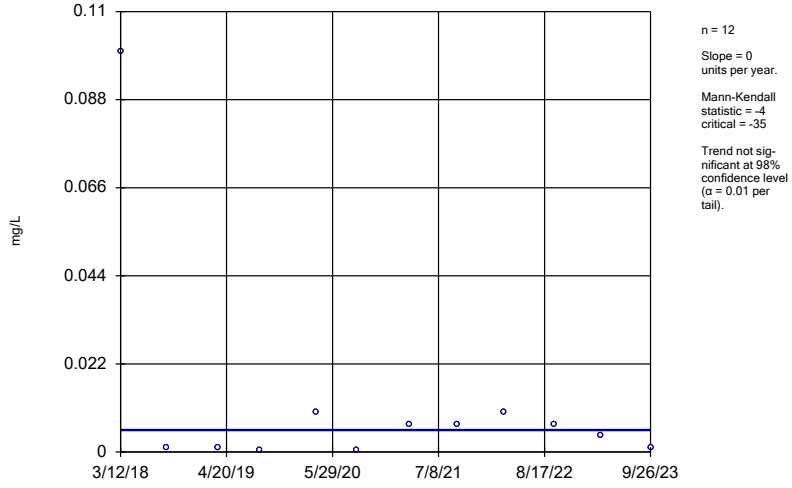


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4

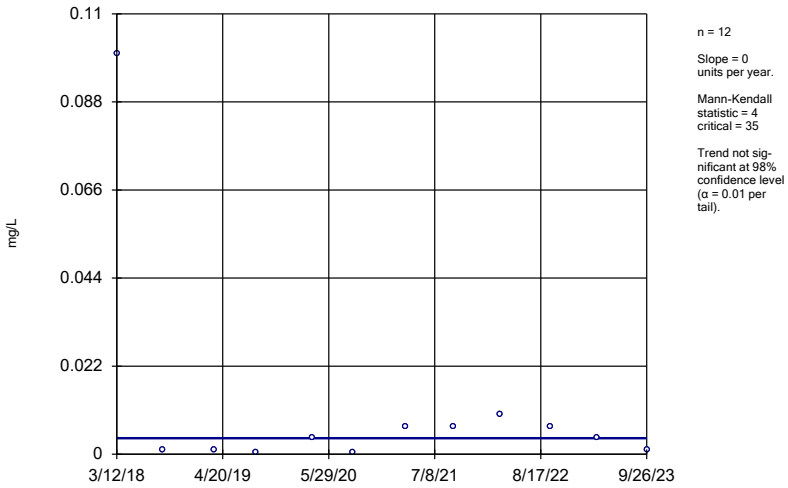


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 4
critical = 35

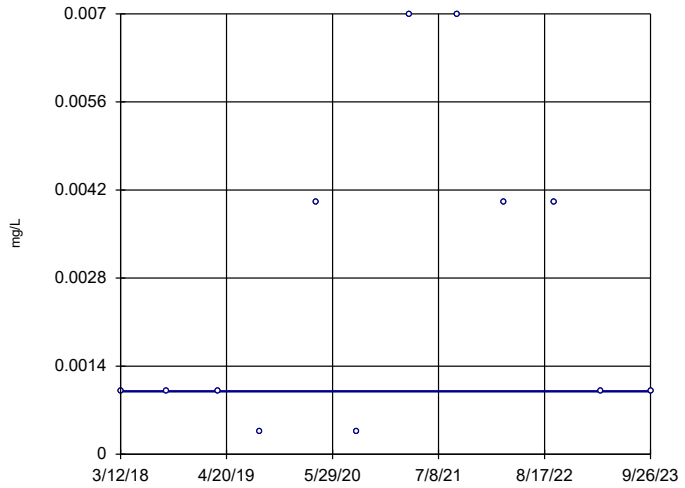
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 9
critical = 35

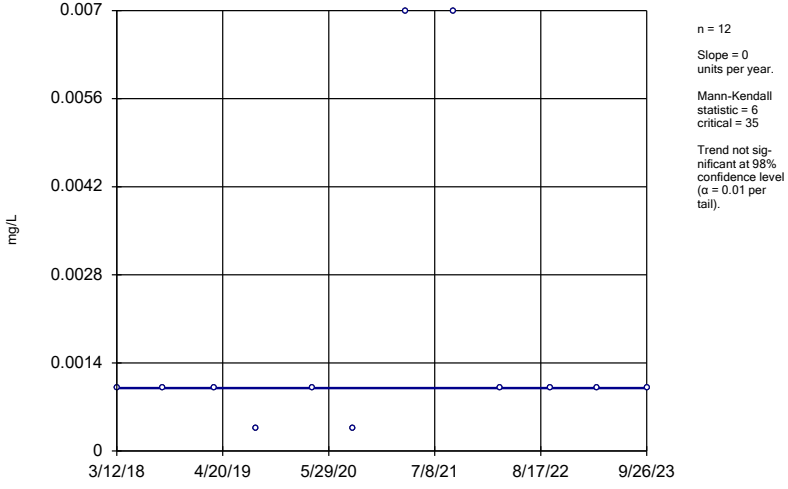
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

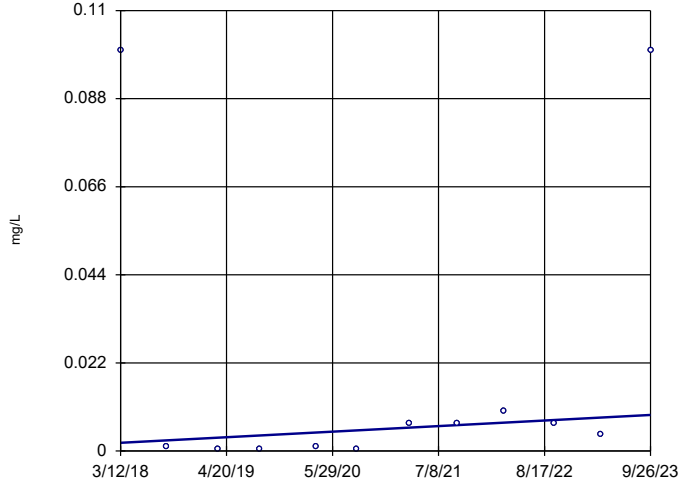
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.001254 units per year.

Mann-Kendall statistic = 20
critical = 35

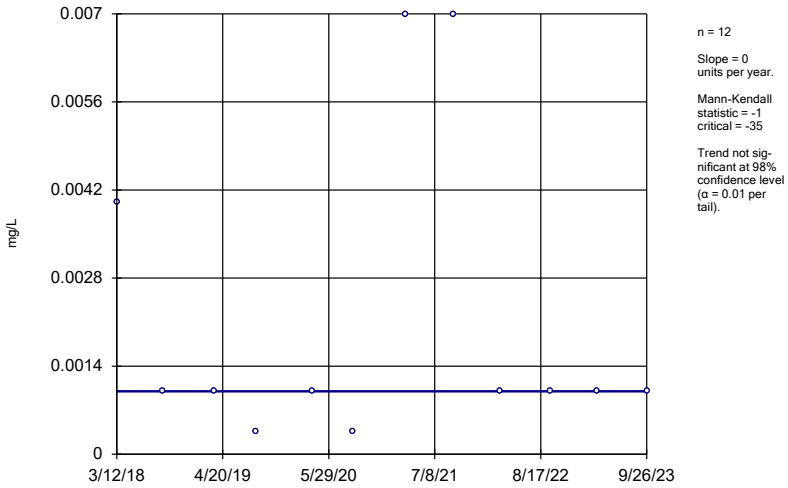
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12

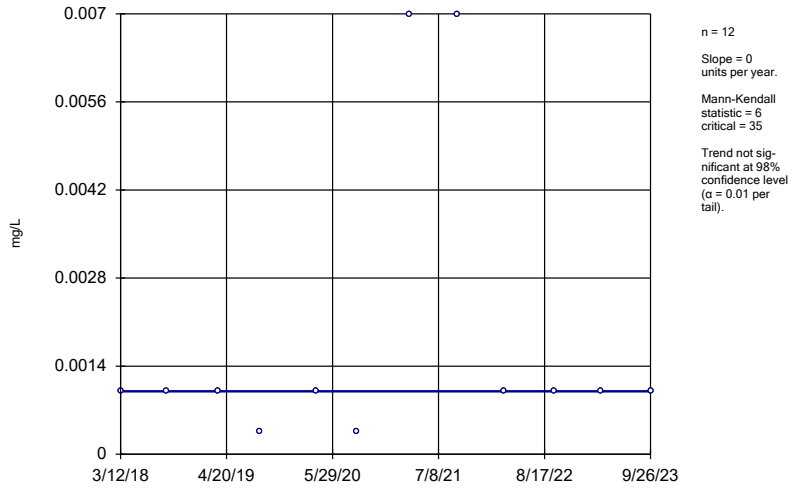


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A

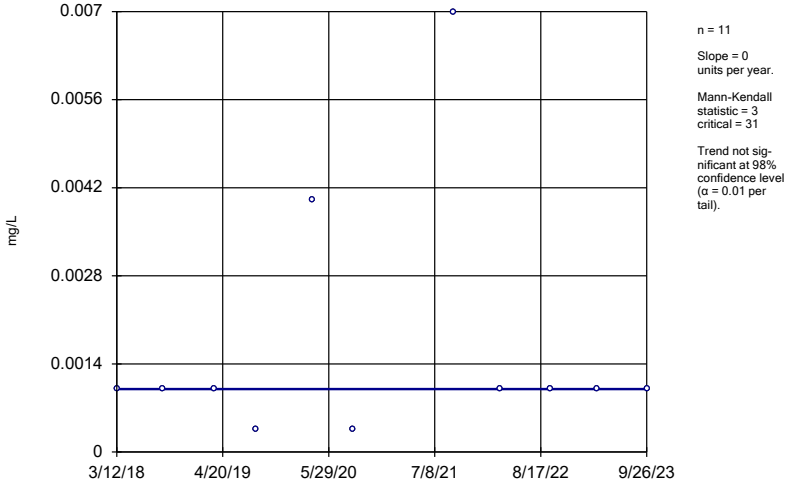


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)

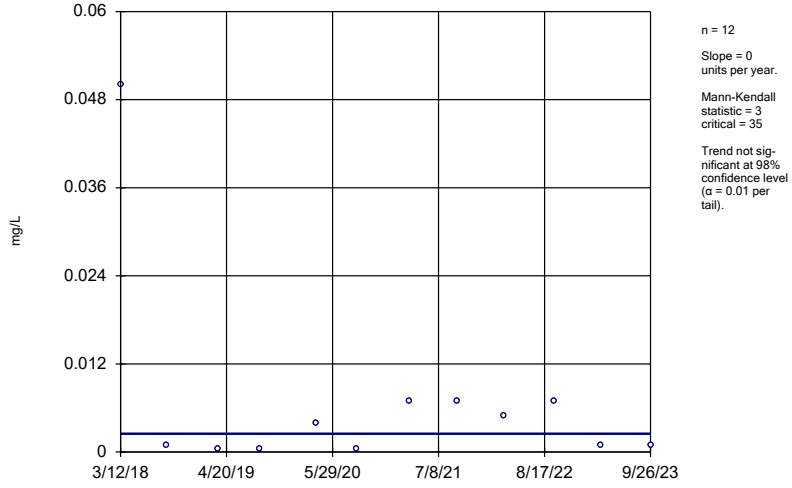


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14

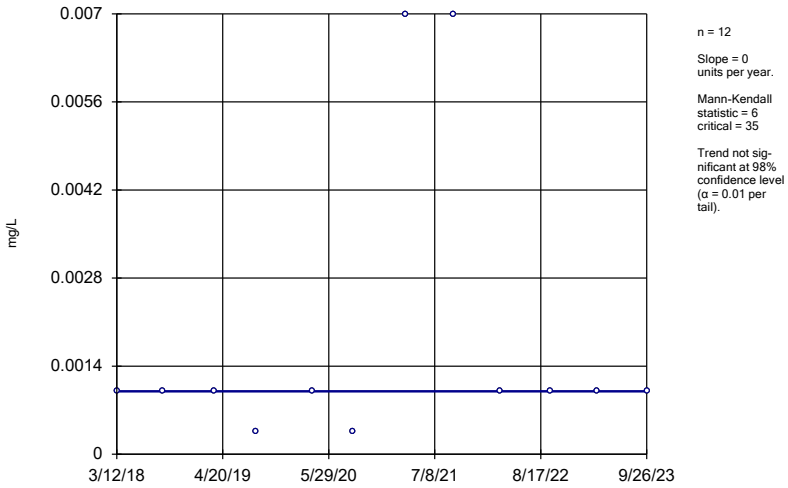


Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = 6
critical = 35

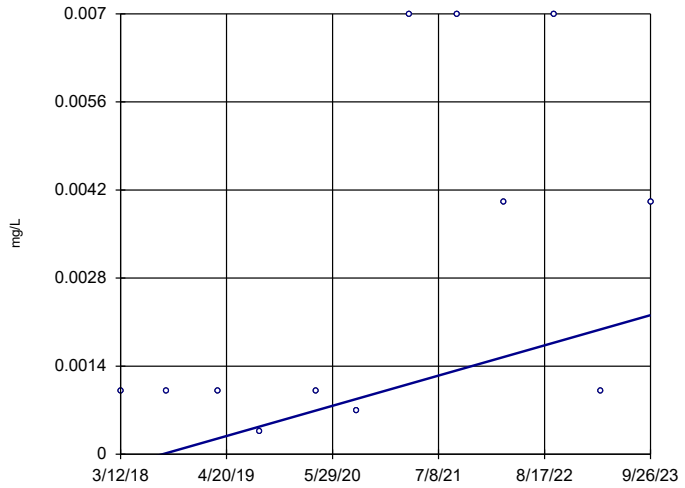
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0004328
units per year.

Mann-Kendall
statistic = 20
critical = 35

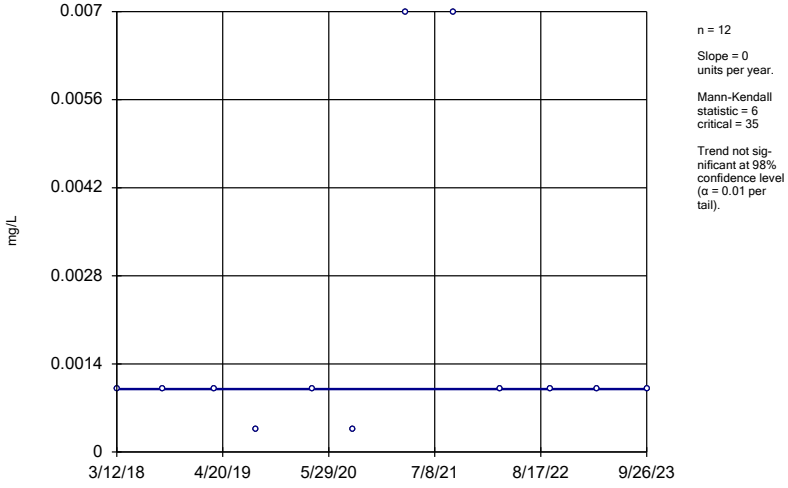
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = 6
critical = 35

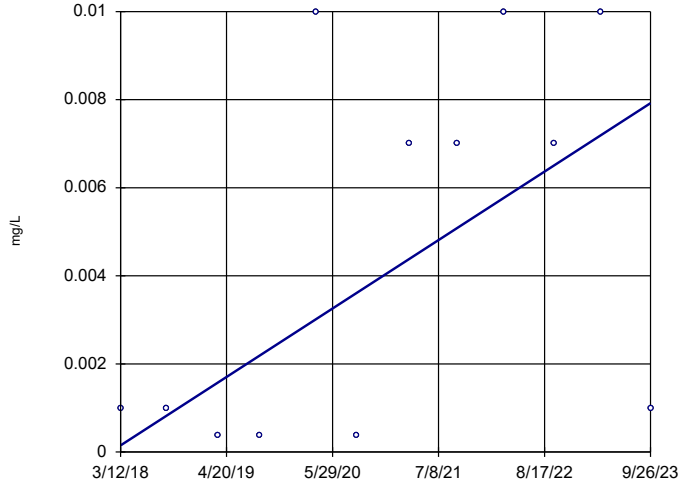
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.001401
units per year.

Mann-Kendall
statistic = 20
critical = 35

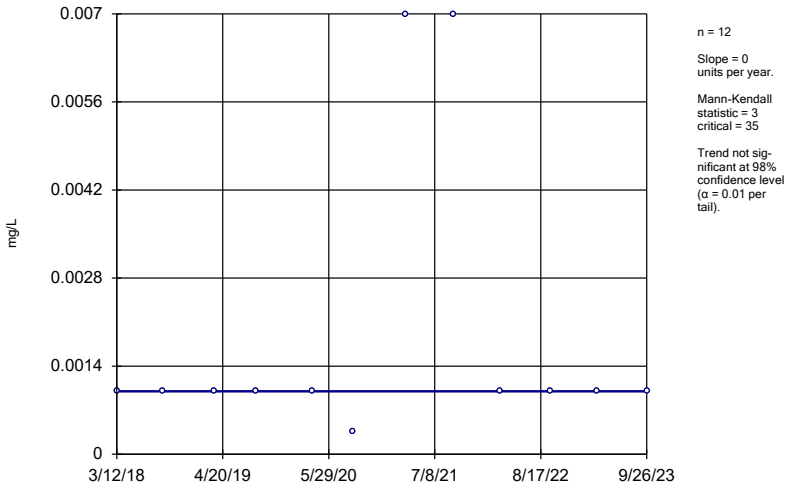
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 35

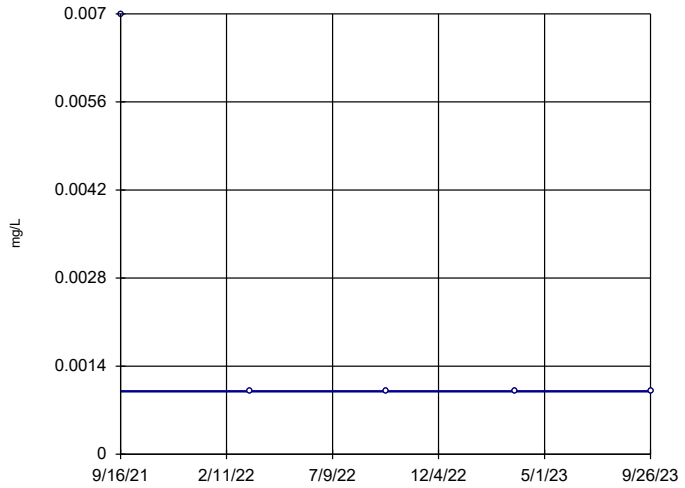
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

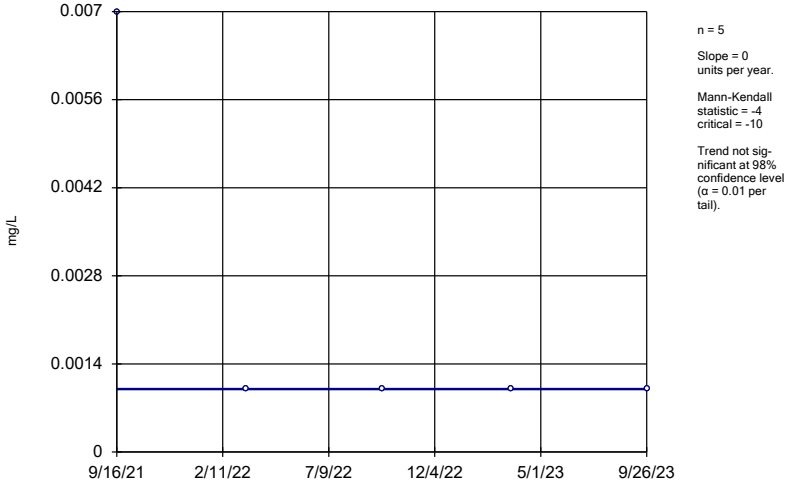
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

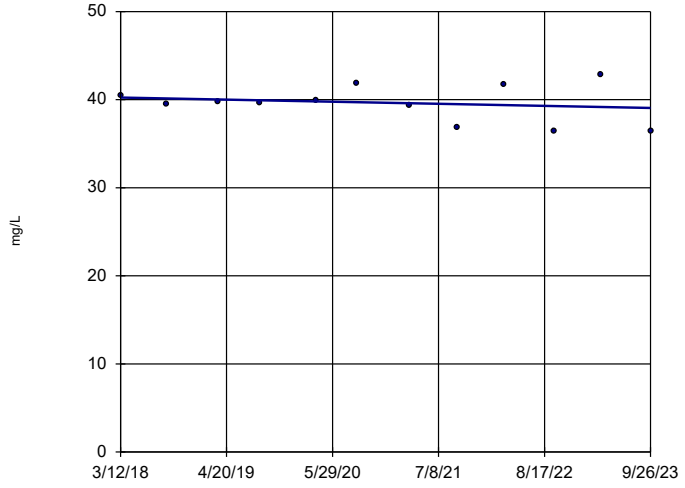
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Silver Total Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.2125 units per year.

Mann-Kendall statistic = -11
critical = -35

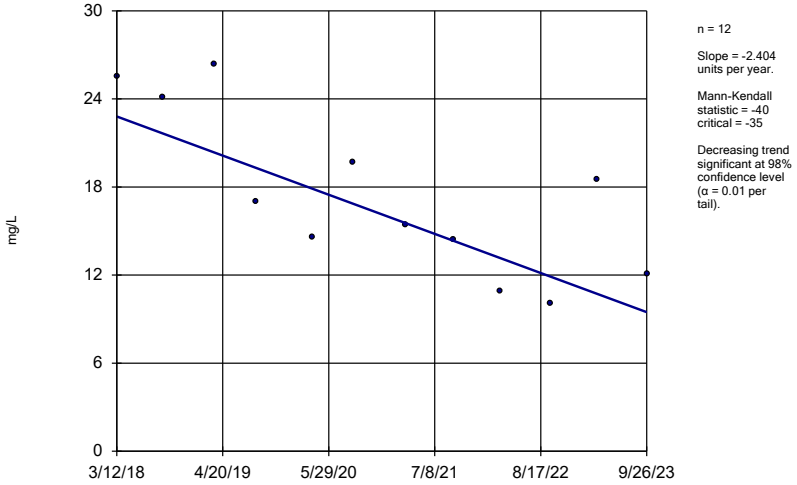
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -2.404 units per year.

Mann-Kendall statistic = -40
critical = -35

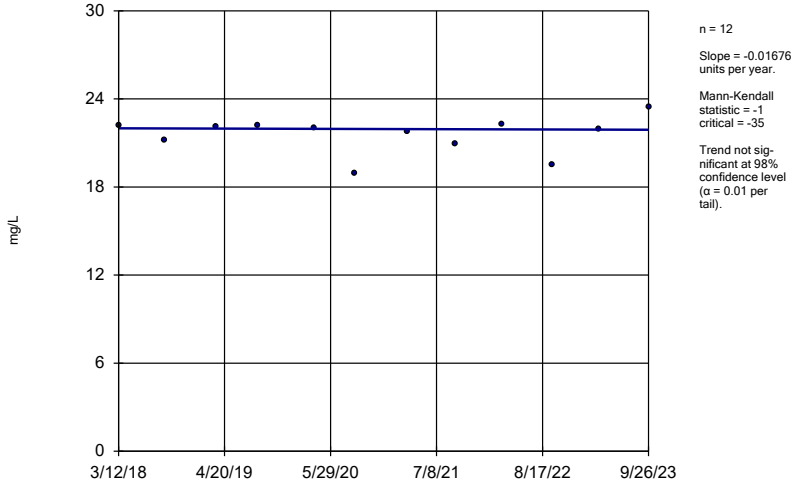
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-3L



n = 12

Slope = -0.01676 units per year.

Mann-Kendall statistic = -1
critical = -35

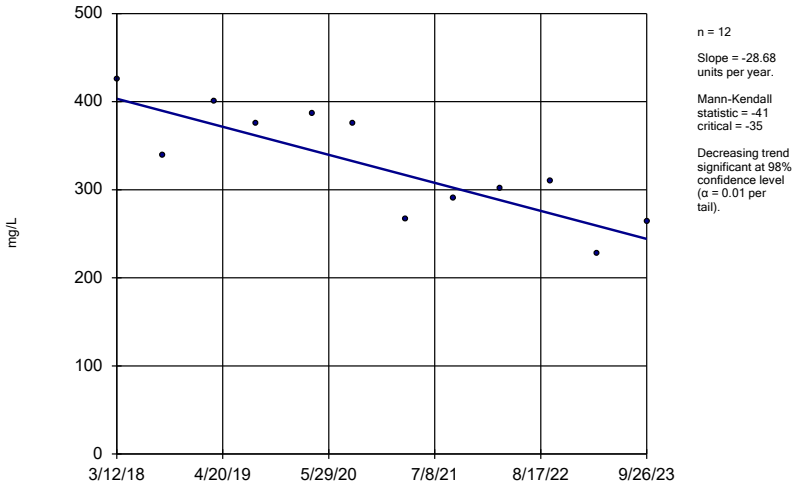
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4



n = 12

Slope = -28.68 units per year.

Mann-Kendall statistic = -41
critical = -35

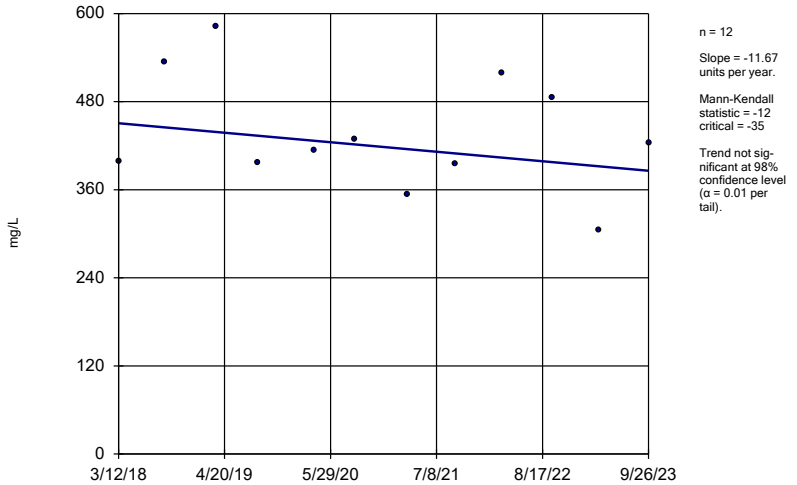
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4L



n = 12

Slope = -11.67 units per year.

Mann-Kendall statistic = -12
critical = -35

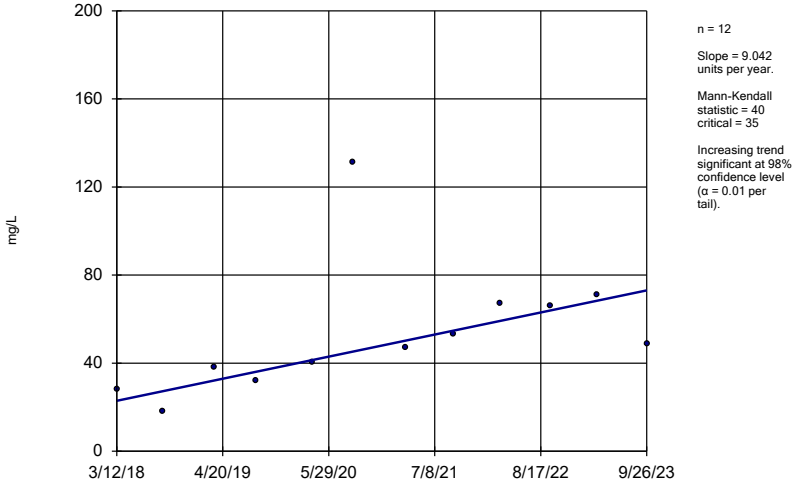
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:55 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-5



n = 12

Slope = 9.042 units per year.

Mann-Kendall statistic = 40 critical = 35

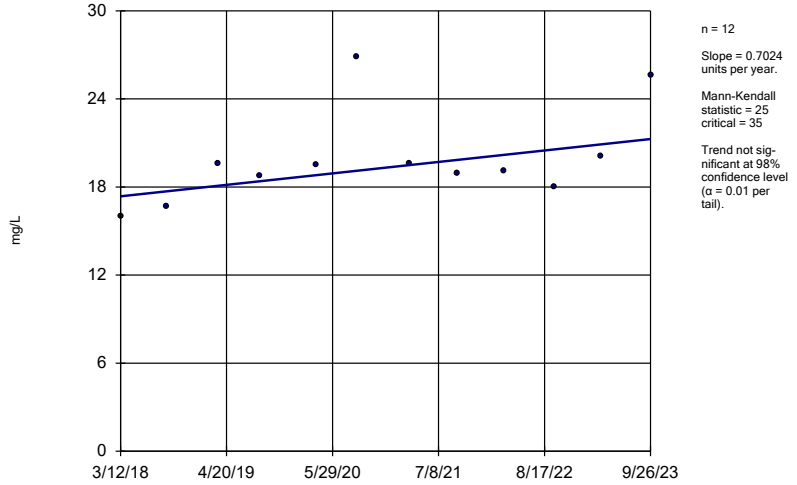
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0.7024 units per year.

Mann-Kendall statistic = 25 critical = 35

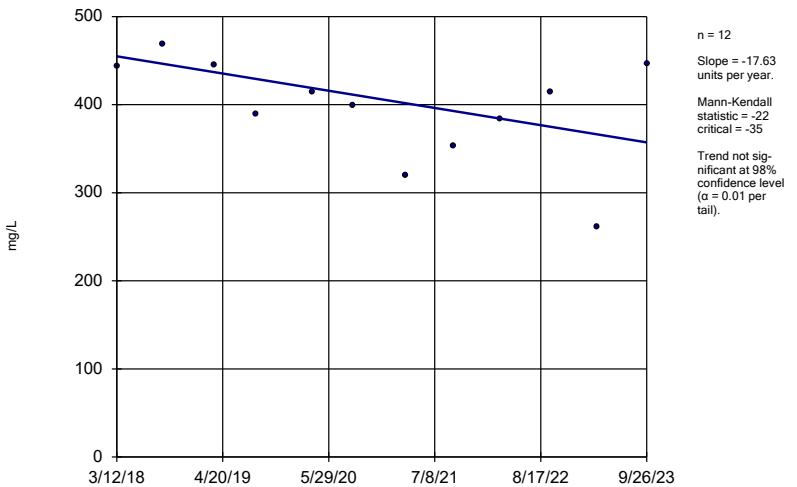
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-11



n = 12

Slope = -17.63 units per year.

Mann-Kendall statistic = -22 critical = -35

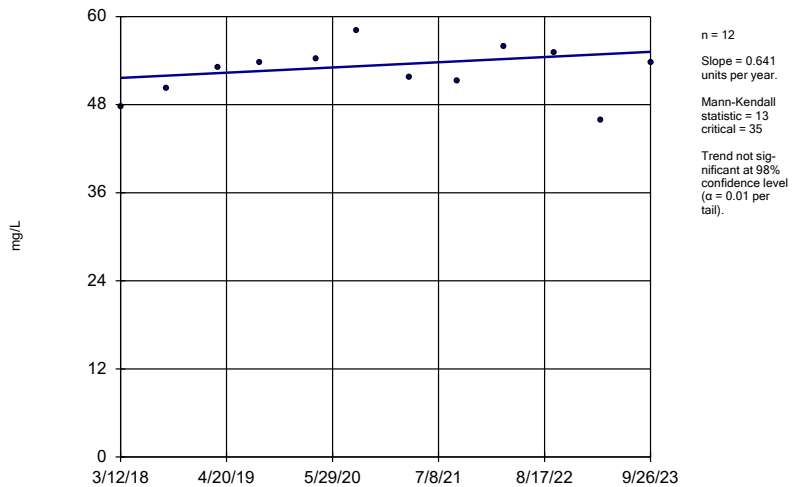
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = 0.641 units per year.

Mann-Kendall statistic = 13 critical = 35

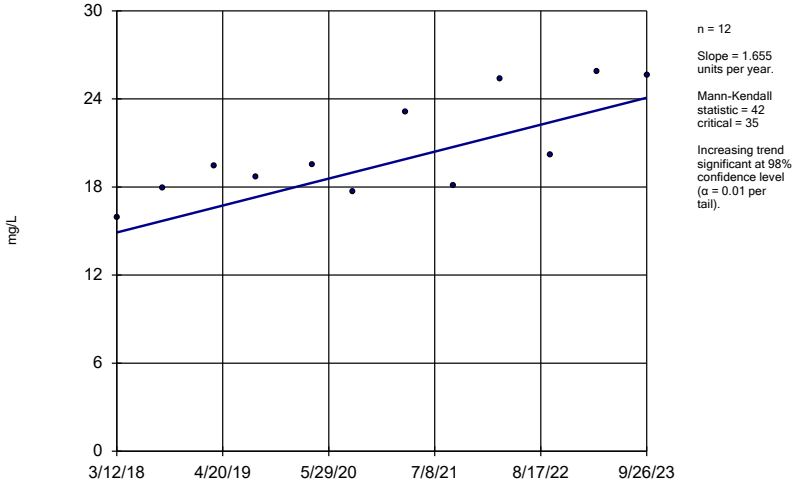
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-2A



n = 12

Slope = 1.655 units per year.

Mann-Kendall statistic = 42 critical = 35

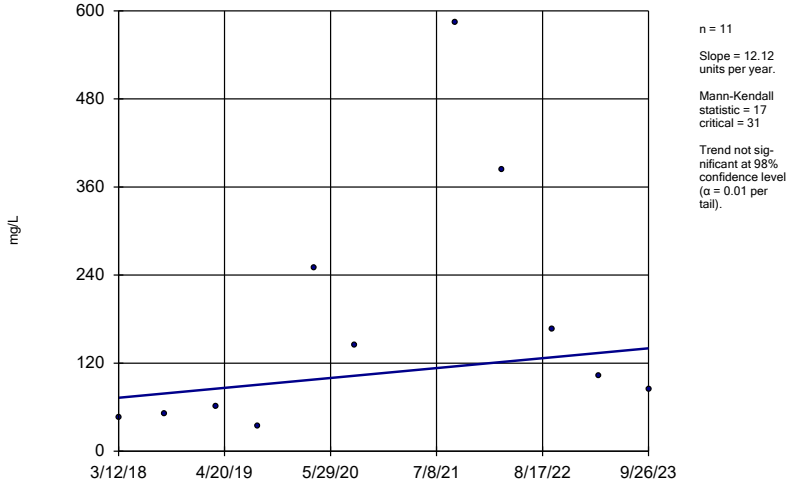
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 12.12 units per year.

Mann-Kendall statistic = 17 critical = 31

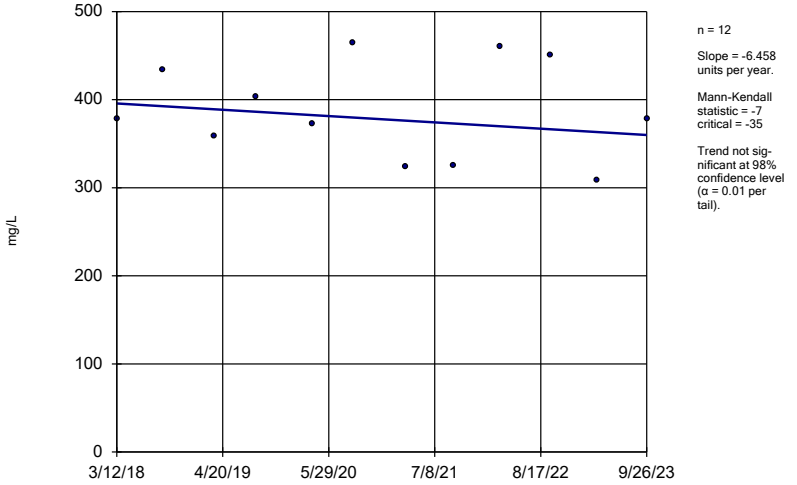
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-14



n = 12

Slope = -6.458 units per year.

Mann-Kendall statistic = -7 critical = -35

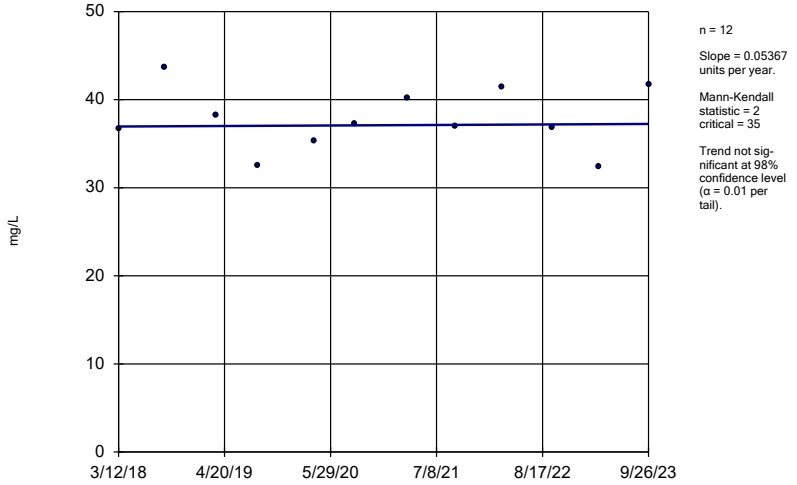
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0.05367 units per year.

Mann-Kendall statistic = 2 critical = 35

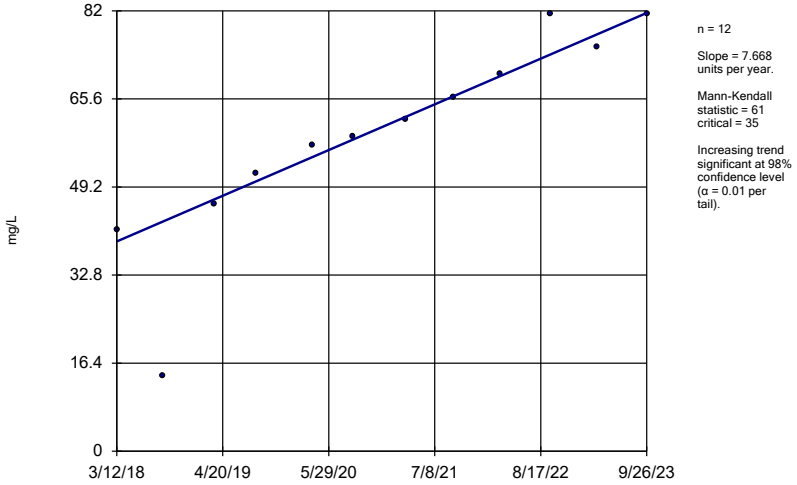
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16



n = 12

Slope = 7.668 units per year.

Mann-Kendall statistic = 61
critical = 35

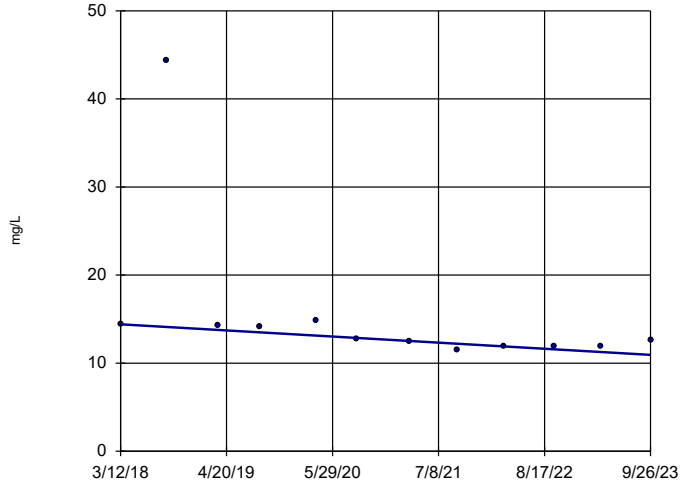
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.6256 units per year.

Mann-Kendall statistic = -39
critical = -35

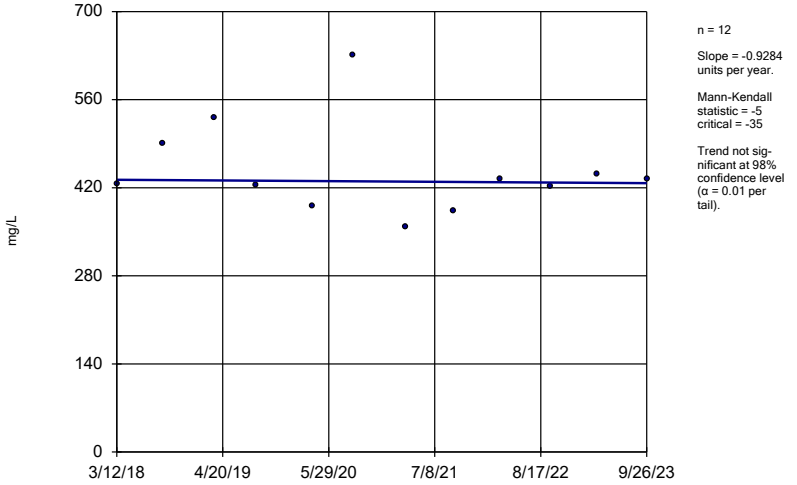
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-18



n = 12

Slope = -0.9284 units per year.

Mann-Kendall statistic = -5
critical = -35

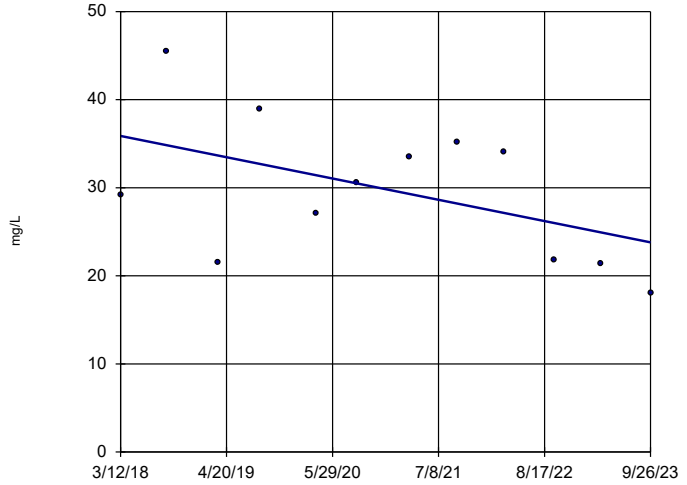
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = -2.178 units per year.

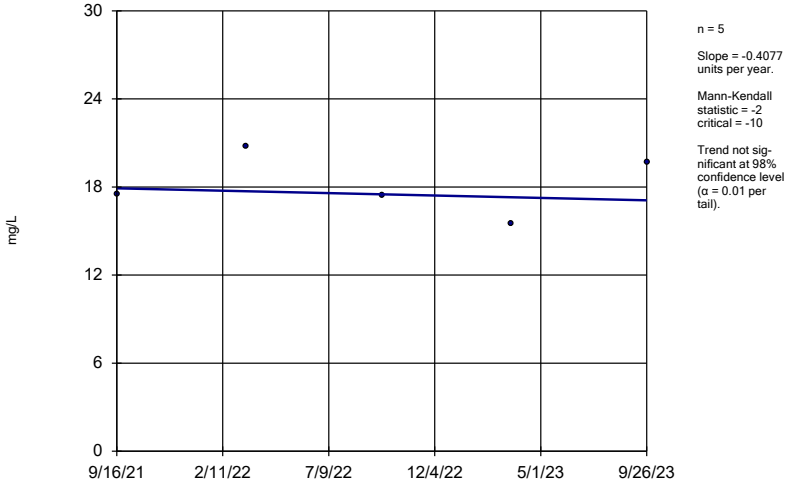
Mann-Kendall statistic = -22
critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sen's Slope Estimator

MW-20

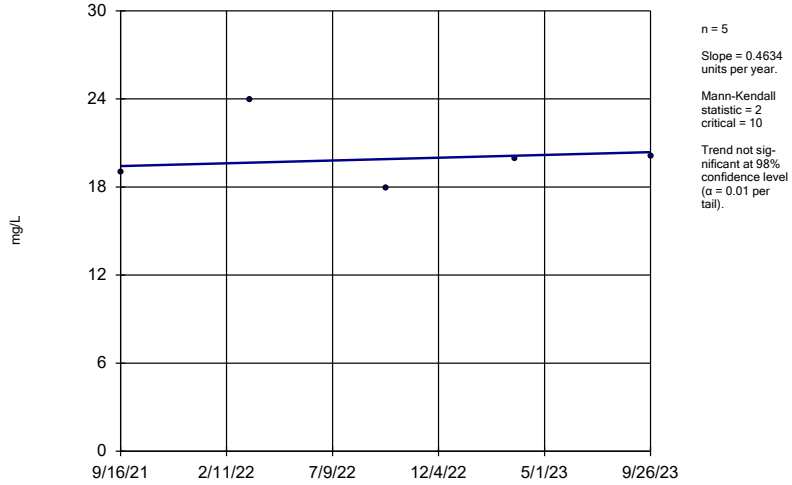


Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21

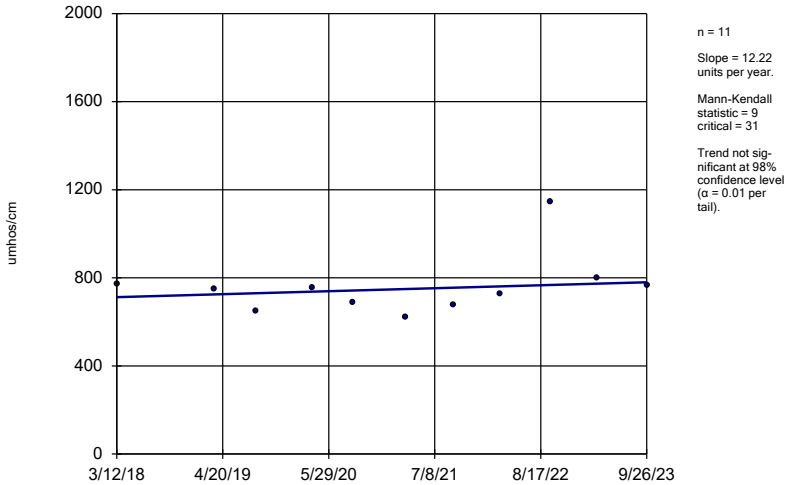


Constituent: Sodium Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1A

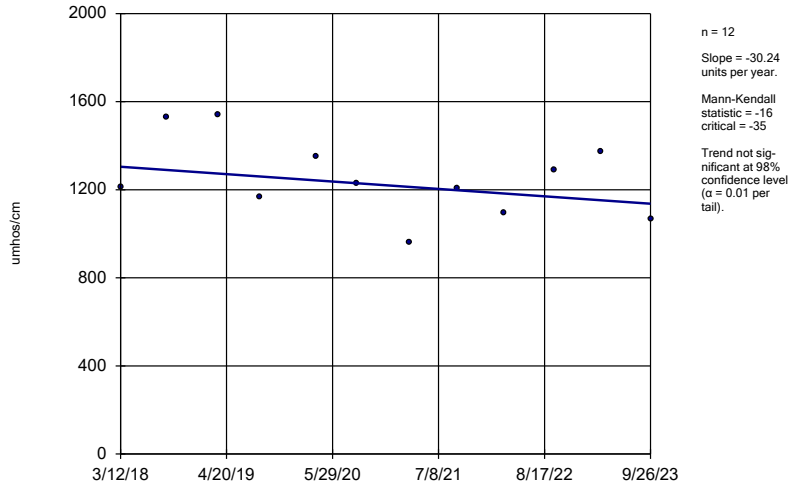


Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1B (bg)

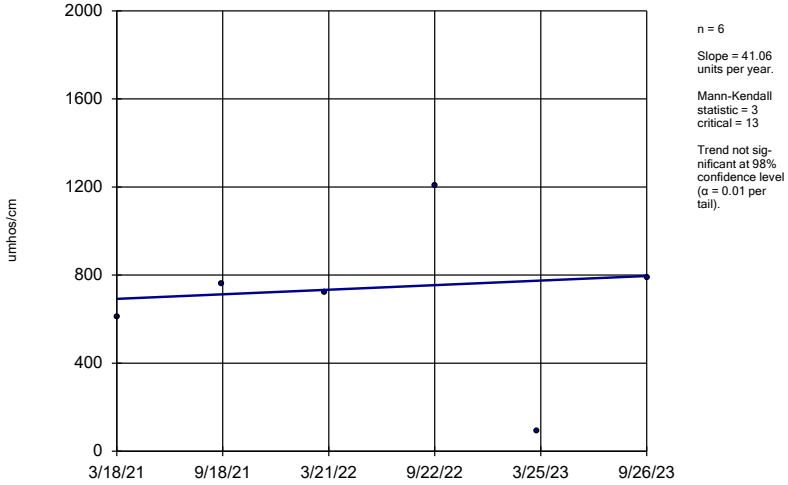


Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-3L



n = 6

Slope = 41.06 units per year.

Mann-Kendall statistic = 3 critical = 13

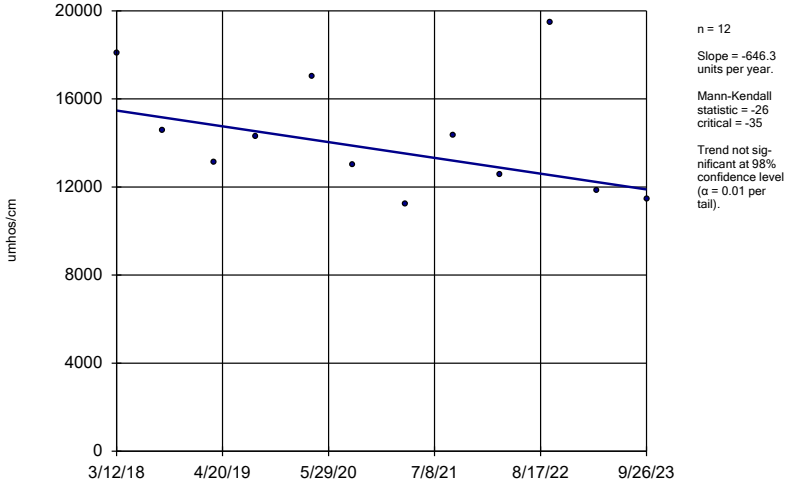
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-4



n = 12

Slope = -646.3 units per year.

Mann-Kendall statistic = -26 critical = -35

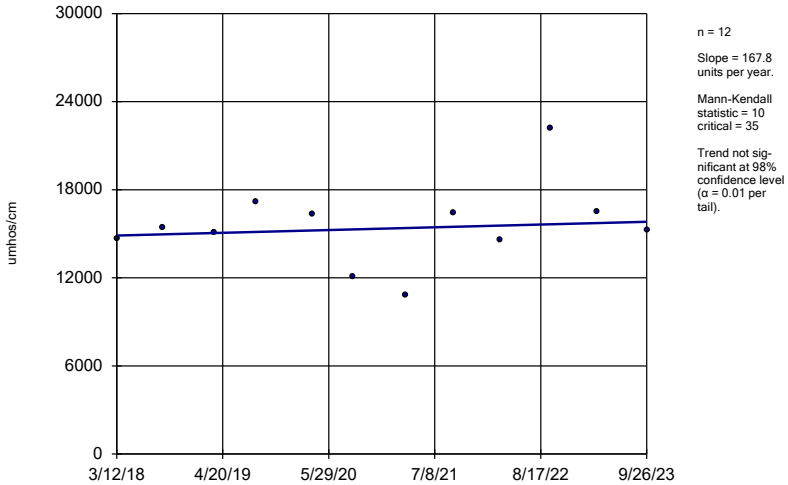
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-4L



n = 12

Slope = 167.8 units per year.

Mann-Kendall statistic = 10 critical = 35

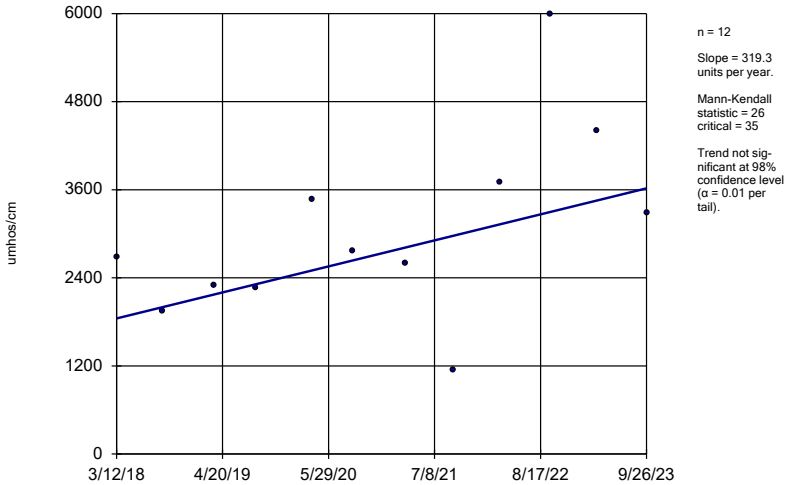
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-5



n = 12

Slope = 319.3 units per year.

Mann-Kendall statistic = 26 critical = 35

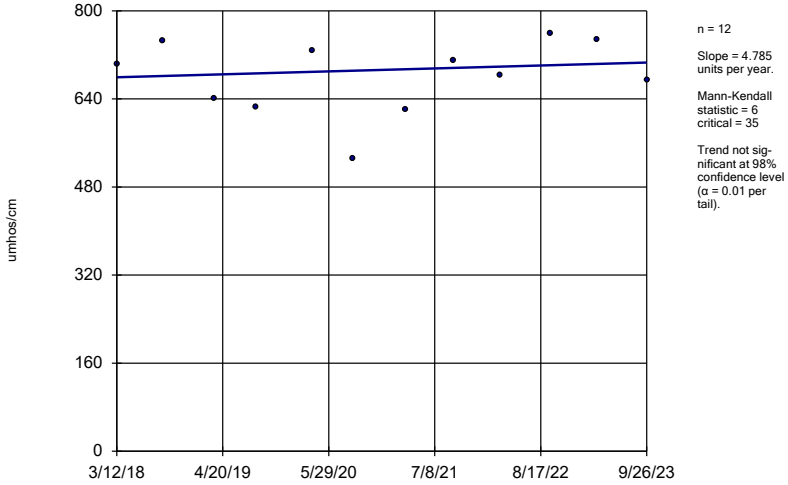
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 4.785 units per year.

Mann-Kendall statistic = 6
critical = 35

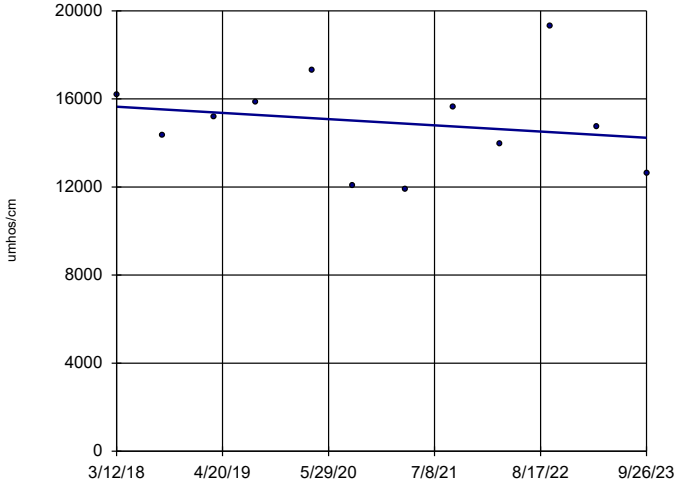
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-11



n = 12

Slope = -254.8 units per year.

Mann-Kendall statistic = -10
critical = -35

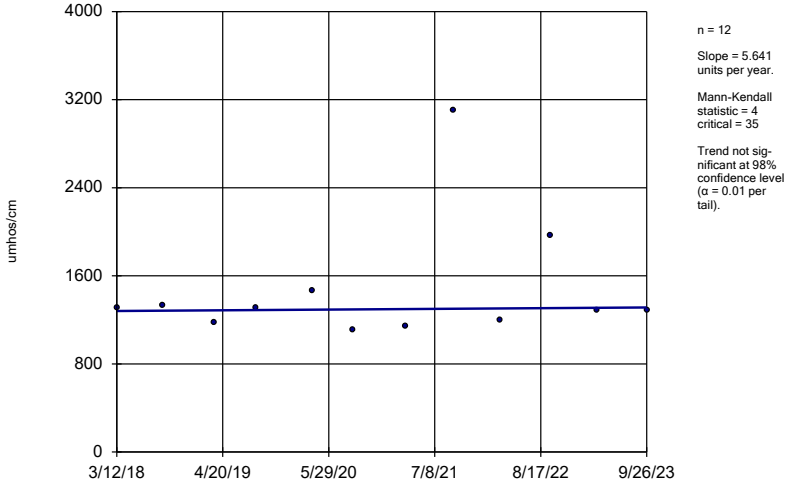
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = 5.641 units per year.

Mann-Kendall statistic = 4
critical = 35

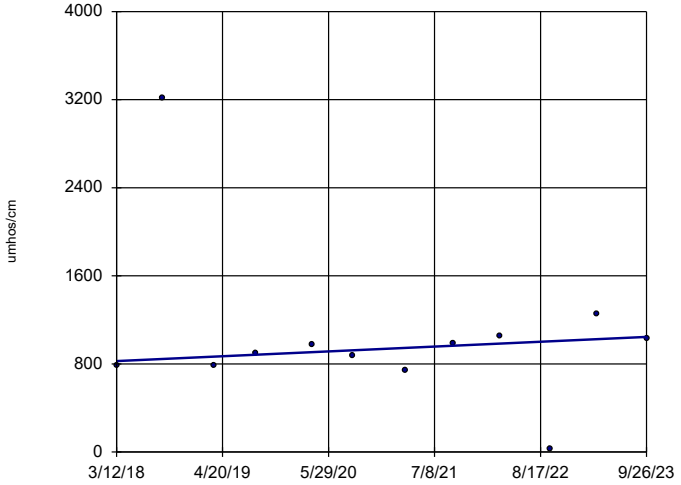
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-2A



n = 12

Slope = 39.43 units per year.

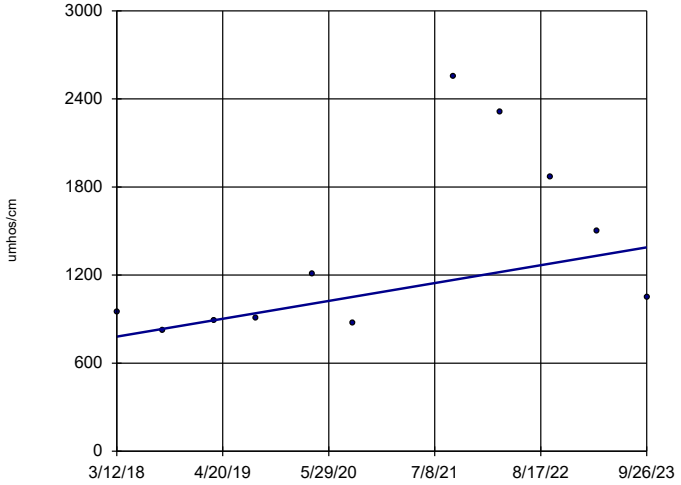
Mann-Kendall statistic = 12
critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 109.6 units per year.

Mann-Kendall statistic = 19 critical = 31

Trend not significant at 98% confidence level (α = 0.01 per tail).

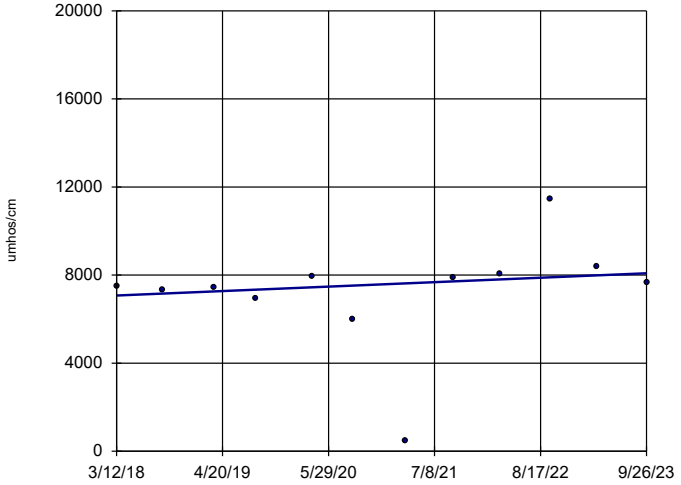
Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-14



n = 12

Slope = 182.2 units per year.

Mann-Kendall statistic = 20 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

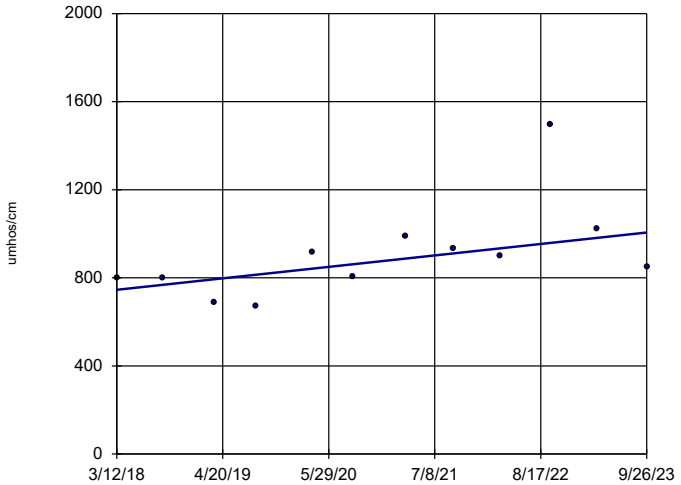
Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 46.91 units per year.

Mann-Kendall statistic = 32 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

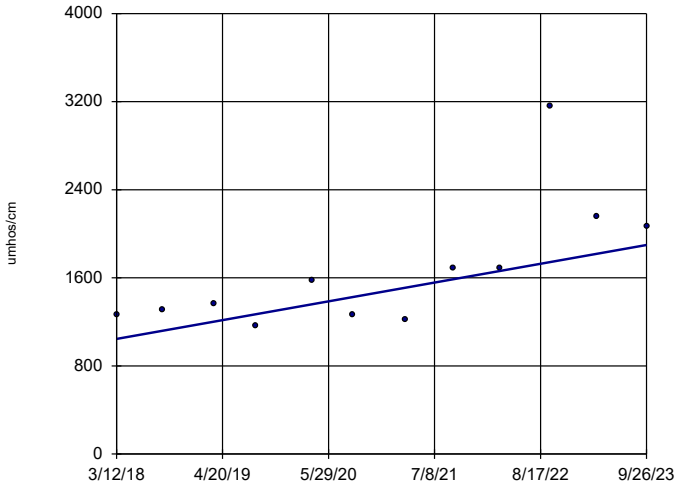
Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16



n = 12

Slope = 153.6 units per year.

Mann-Kendall statistic = 36 critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

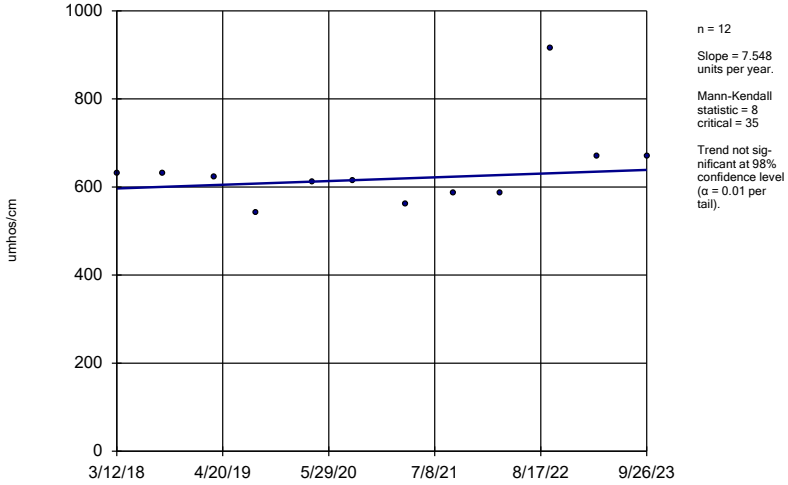
Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16L



n = 12

Slope = 7.548 units per year.

Mann-Kendall statistic = 8
critical = 35

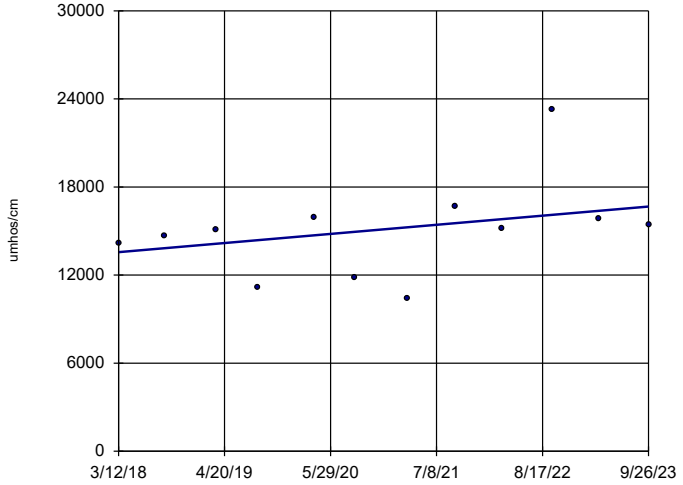
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-18



n = 12

Slope = 560.7 units per year.

Mann-Kendall statistic = 22
critical = 35

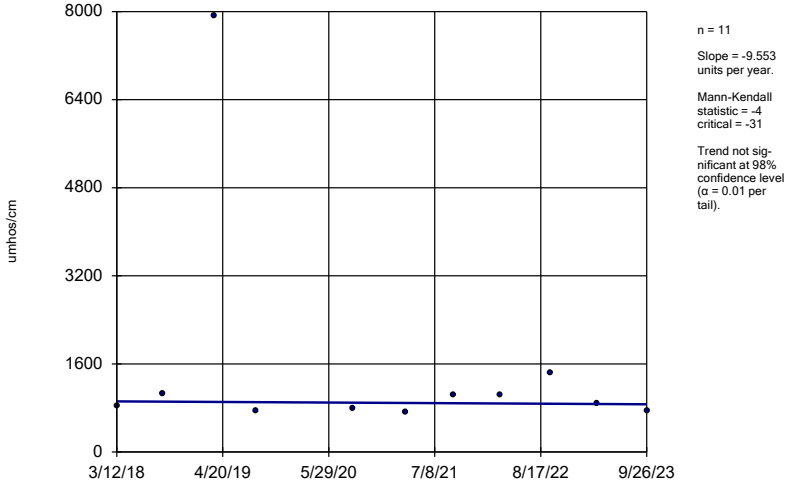
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-19



n = 11

Slope = -9.553 units per year.

Mann-Kendall statistic = -4
critical = -31

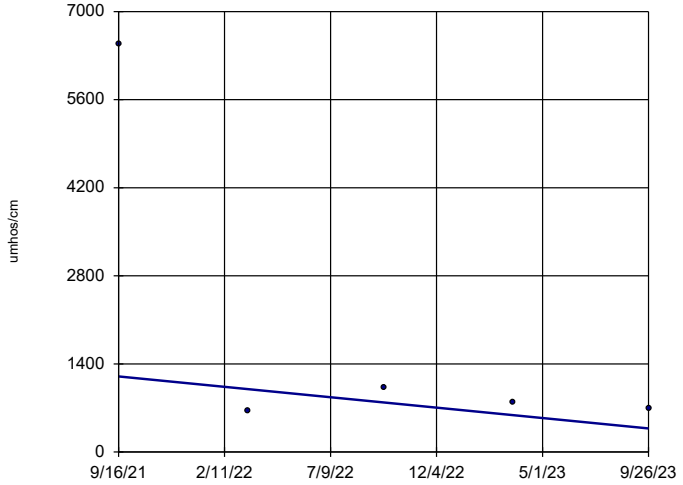
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-20



n = 5

Slope = -407.5 units per year.

Mann-Kendall statistic = -4
critical = -10

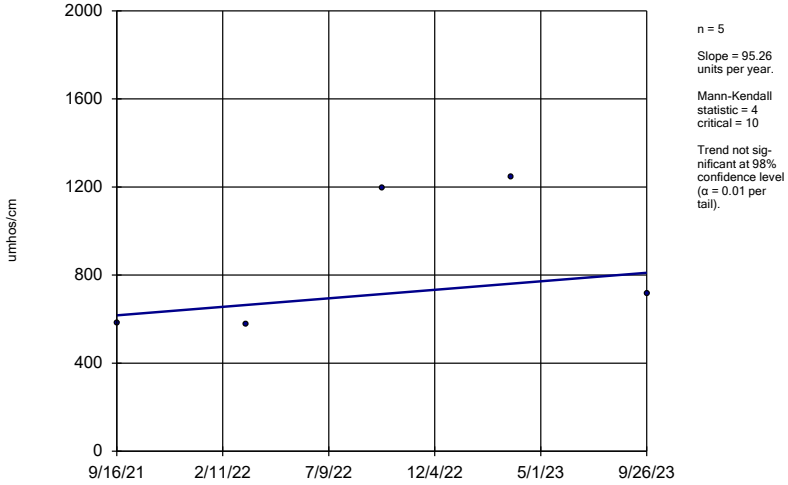
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-21



n = 5

Slope = 95.26 units per year.

Mann-Kendall statistic = 4 critical = 10

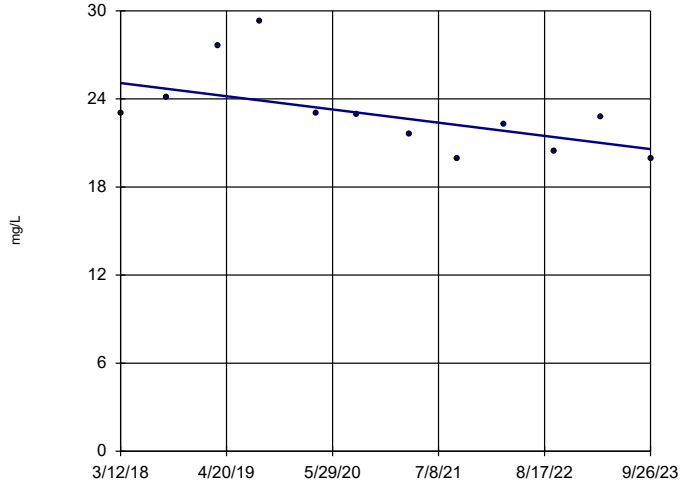
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Specific conductivity Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-1A



n = 12

Slope = -0.8108 units per year.

Mann-Kendall statistic = -38 critical = -35

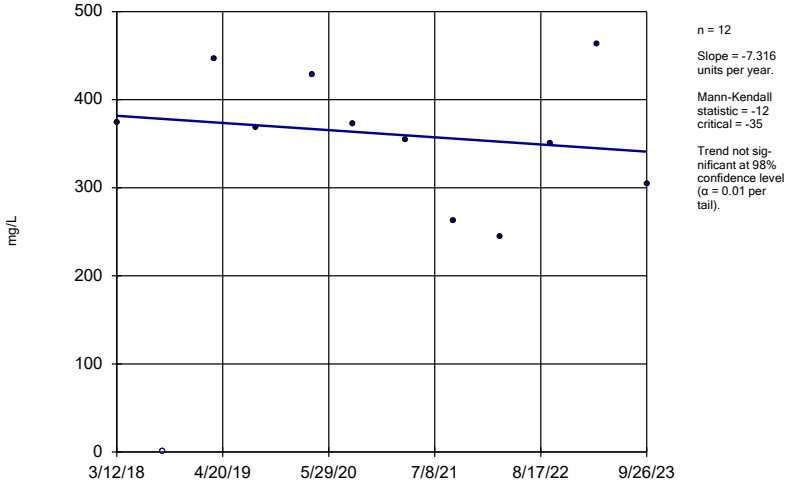
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -7.316 units per year.

Mann-Kendall statistic = -12 critical = -35

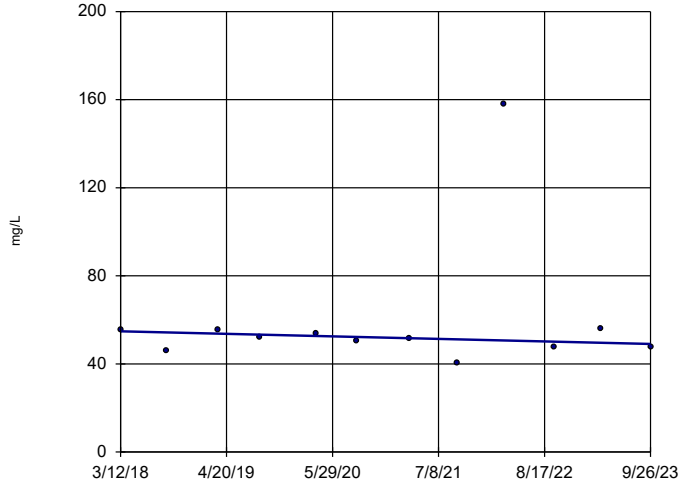
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-3L



n = 12

Slope = -1.041 units per year.

Mann-Kendall statistic = -8 critical = -35

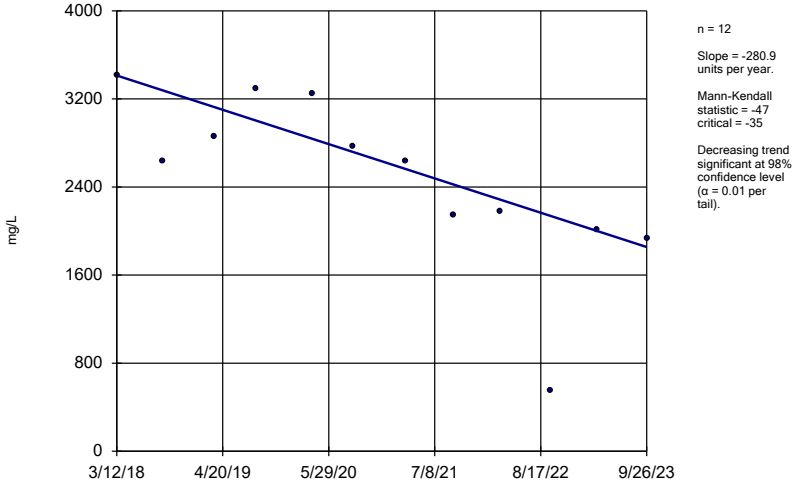
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-4



n = 12

Slope = -280.9 units per year.

Mann-Kendall statistic = -47
critical = -35

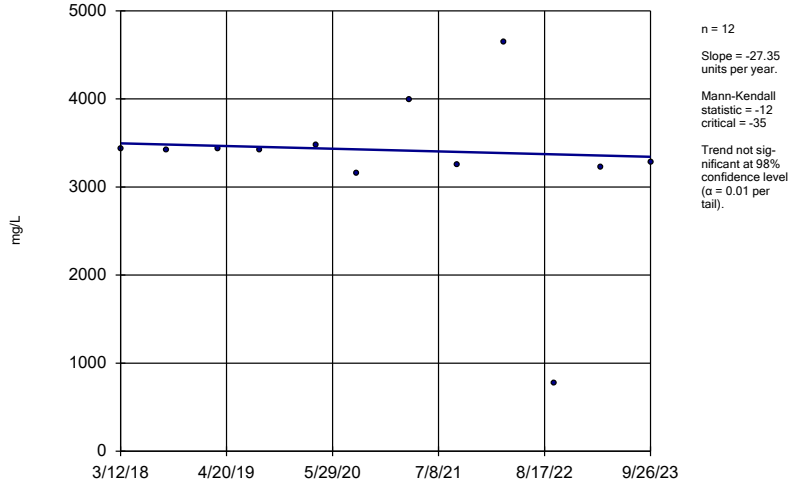
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-4L



n = 12

Slope = -27.35 units per year.

Mann-Kendall statistic = -12
critical = -35

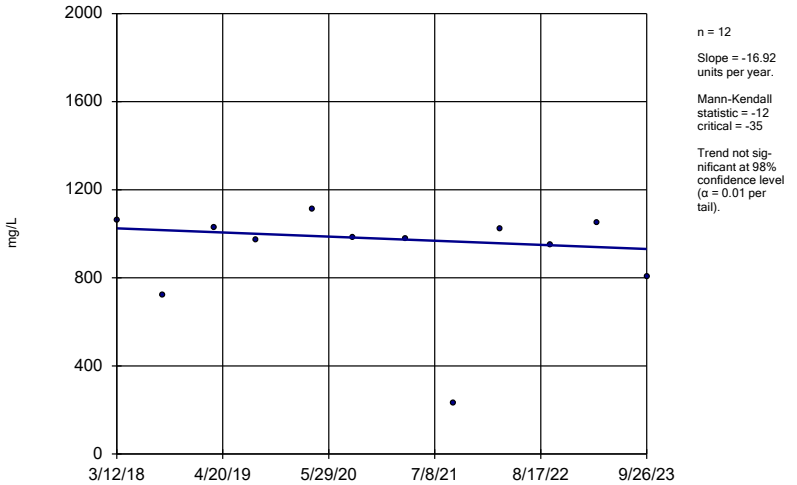
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-5



n = 12

Slope = -16.92 units per year.

Mann-Kendall statistic = -12
critical = -35

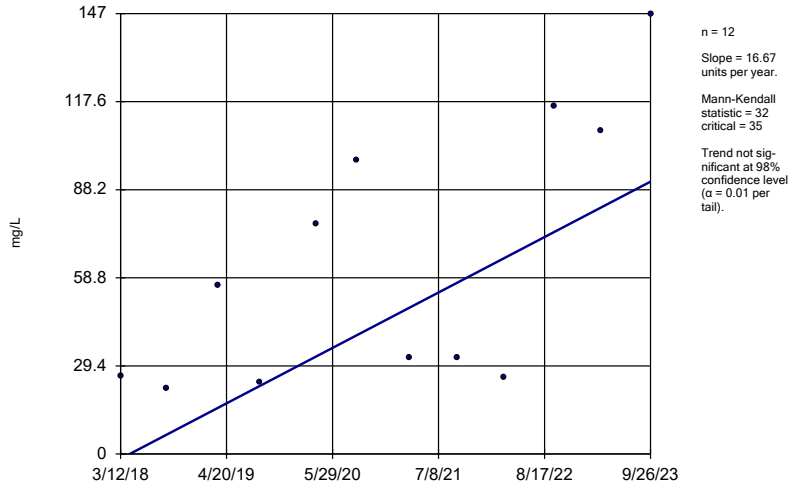
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 16.67 units per year.

Mann-Kendall statistic = 32
critical = 35

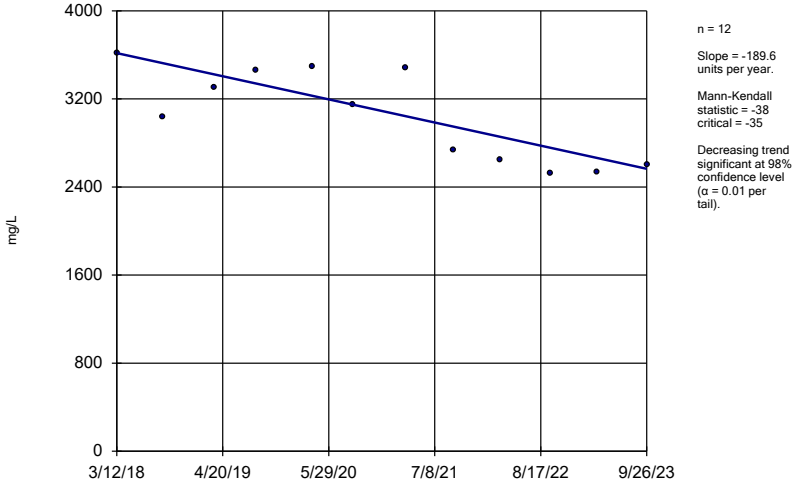
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-11



n = 12

Slope = -189.6 units per year.

Mann-Kendall statistic = -38
critical = -35

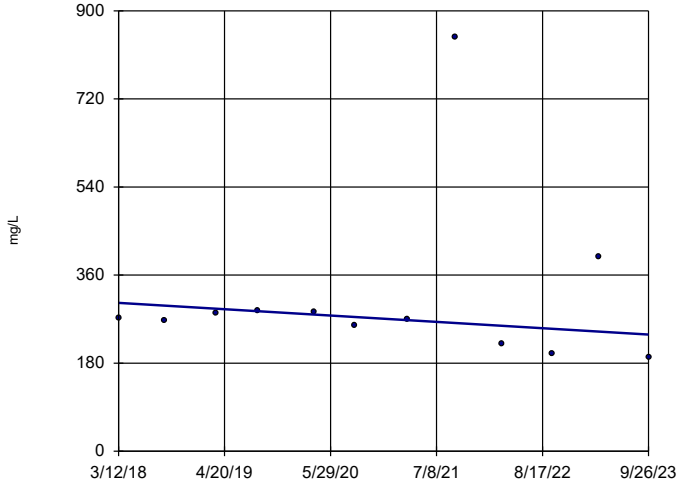
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-12



n = 12

Slope = -11.66 units per year.

Mann-Kendall statistic = -14
critical = -35

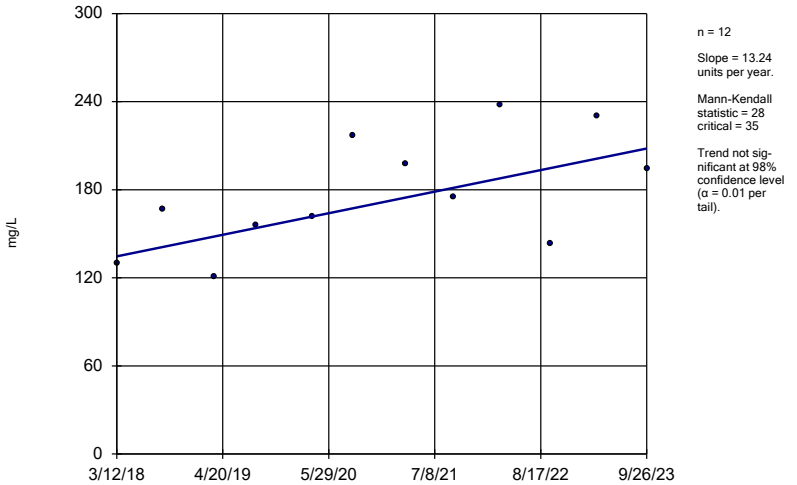
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-2A



n = 12

Slope = 13.24 units per year.

Mann-Kendall statistic = 28
critical = 35

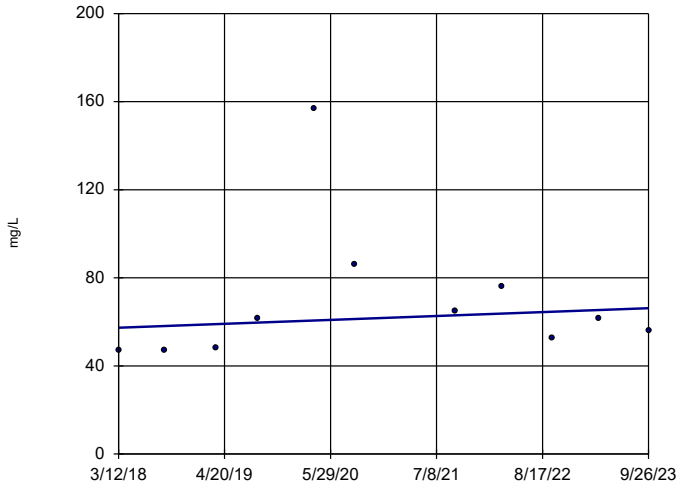
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 1.605 units per year.

Mann-Kendall statistic = 13
critical = 31

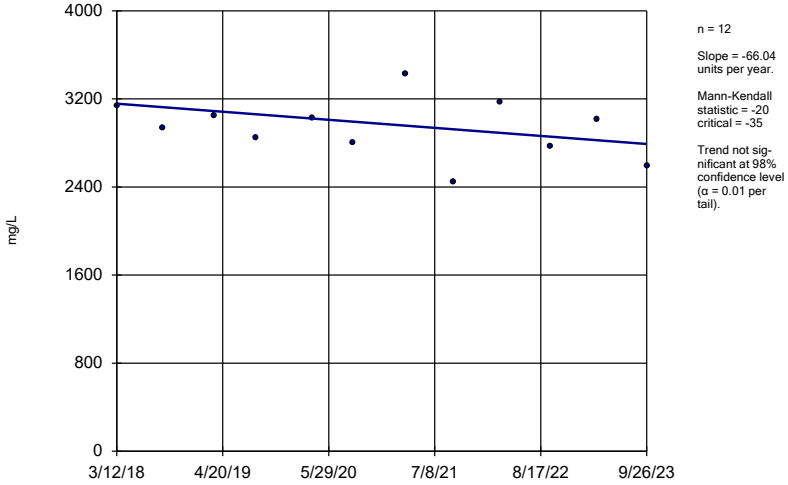
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-14



n = 12

Slope = -66.04 units per year.

Mann-Kendall statistic = -20 critical = -35

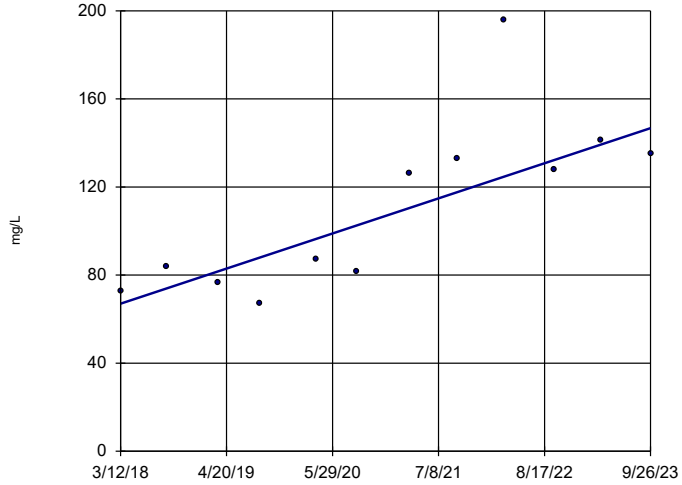
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 14.37 units per year.

Mann-Kendall statistic = 44 critical = 35

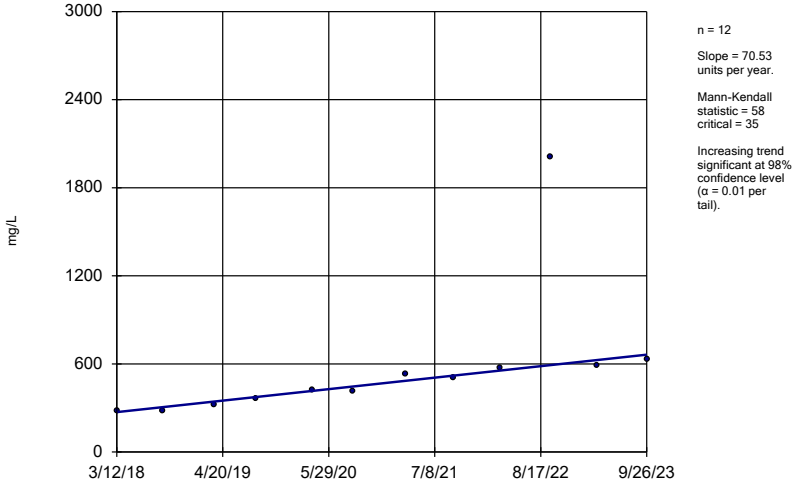
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16



n = 12

Slope = 70.53 units per year.

Mann-Kendall statistic = 58 critical = 35

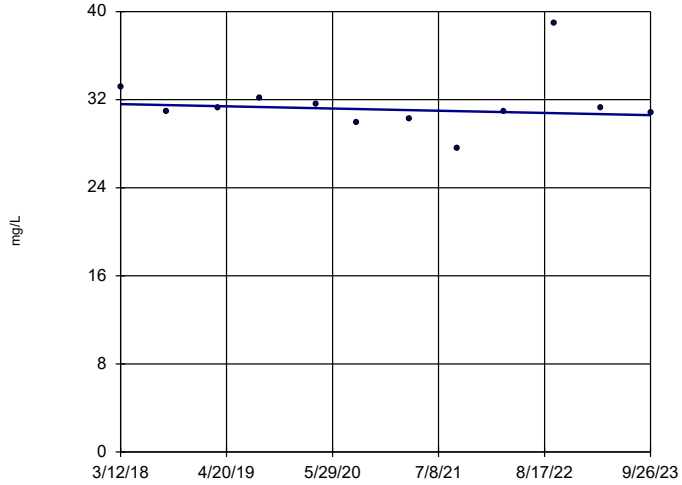
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-16L



n = 12

Slope = -0.1809 units per year.

Mann-Kendall statistic = -12 critical = -35

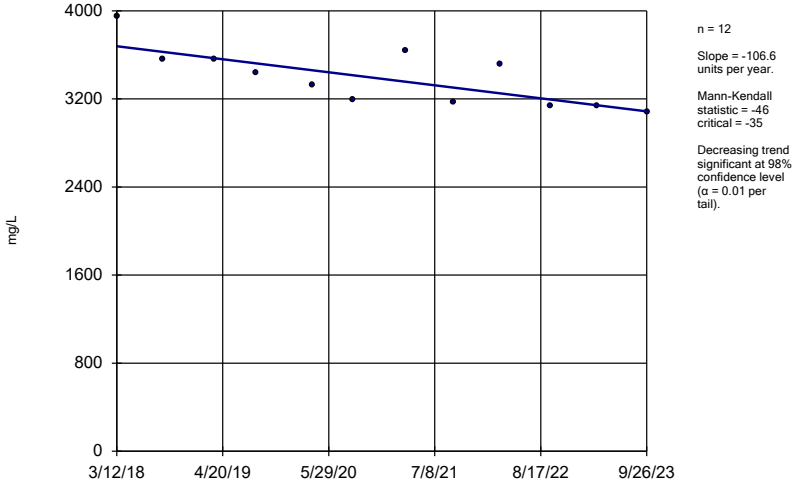
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-18



n = 12

Slope = -106.6 units per year.

Mann-Kendall statistic = -46 critical = -35

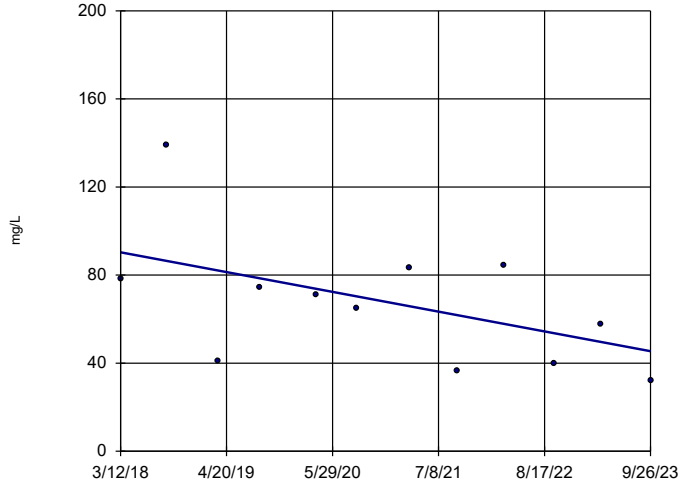
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-19



n = 12

Slope = -8.091 units per year.

Mann-Kendall statistic = -26 critical = -35

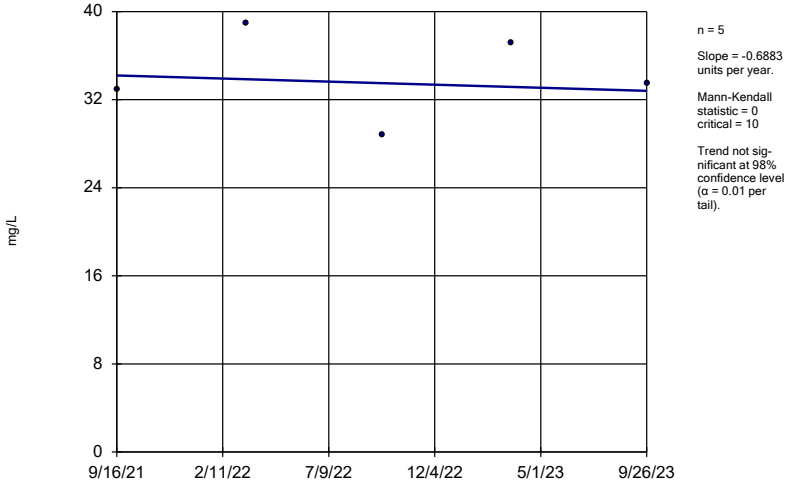
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-20



n = 5

Slope = -0.6883 units per year.

Mann-Kendall statistic = 0 critical = 10

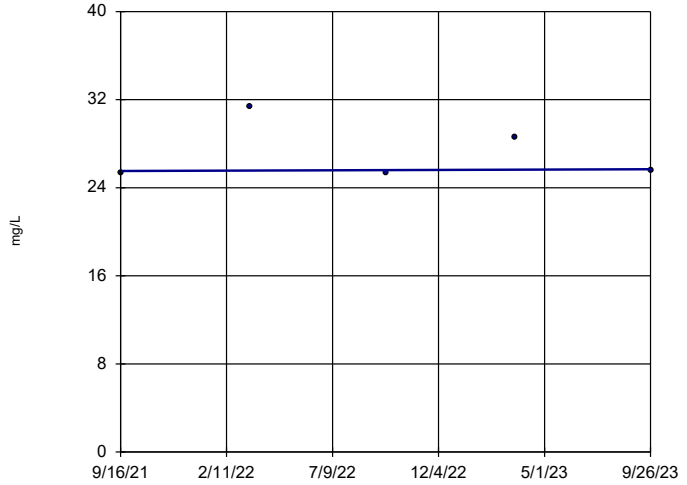
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21



n = 5

Slope = 0.07399 units per year.

Mann-Kendall statistic = 1 critical = 10

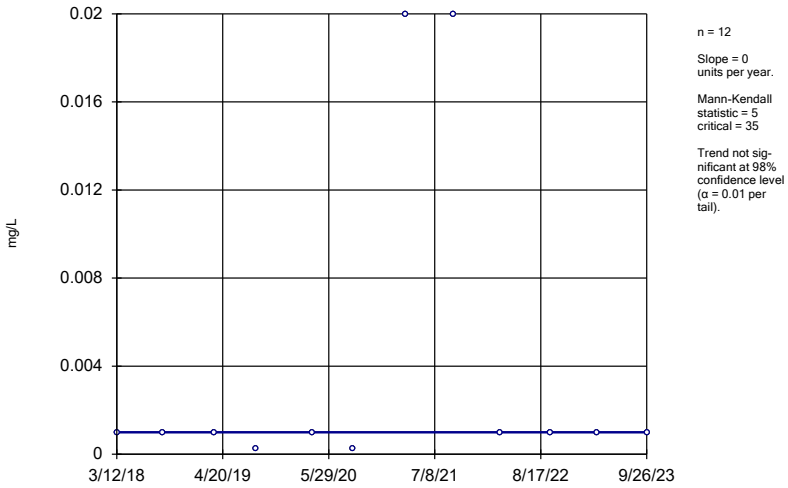
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5 critical = 35

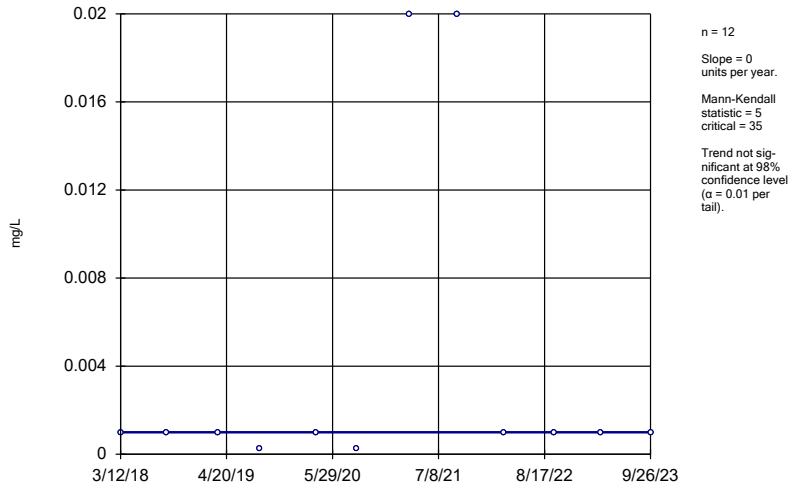
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5 critical = 35

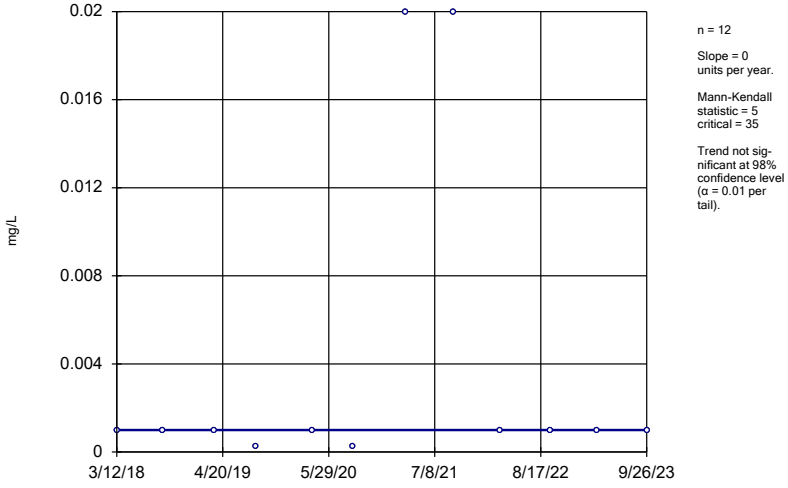
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5 critical = 35

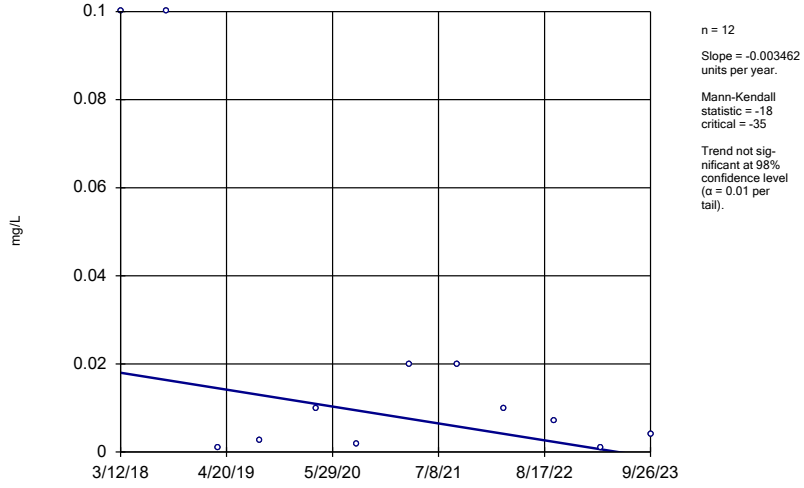
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = -0.003462 units per year.

Mann-Kendall statistic = -18 critical = -35

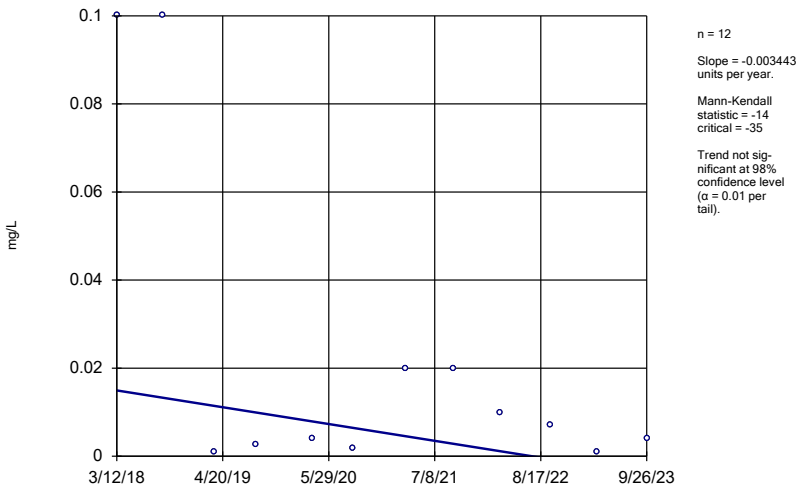
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = -0.003443 units per year.

Mann-Kendall statistic = -14
critical = -35

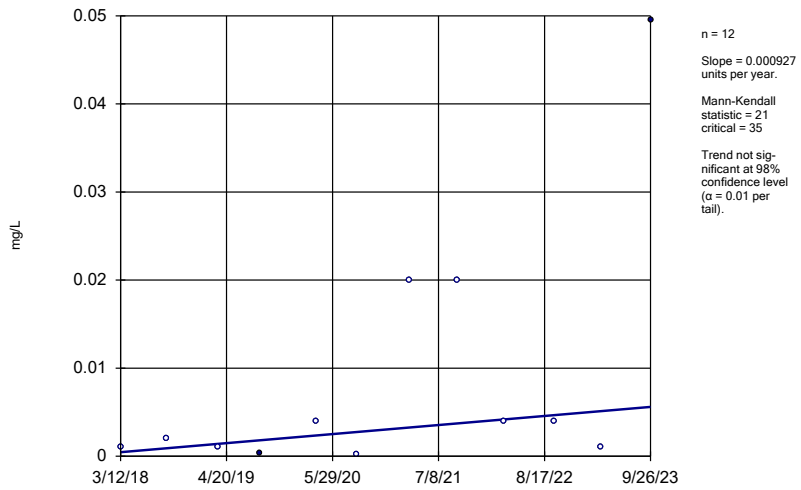
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0.000927 units per year.

Mann-Kendall statistic = 21
critical = 35

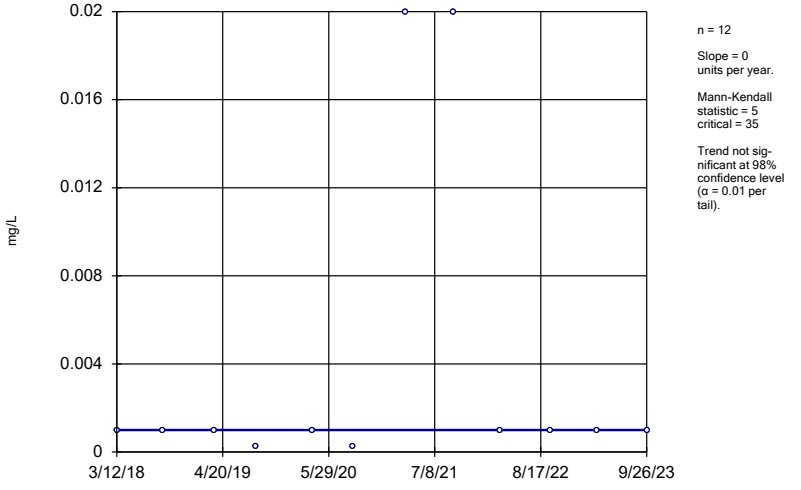
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

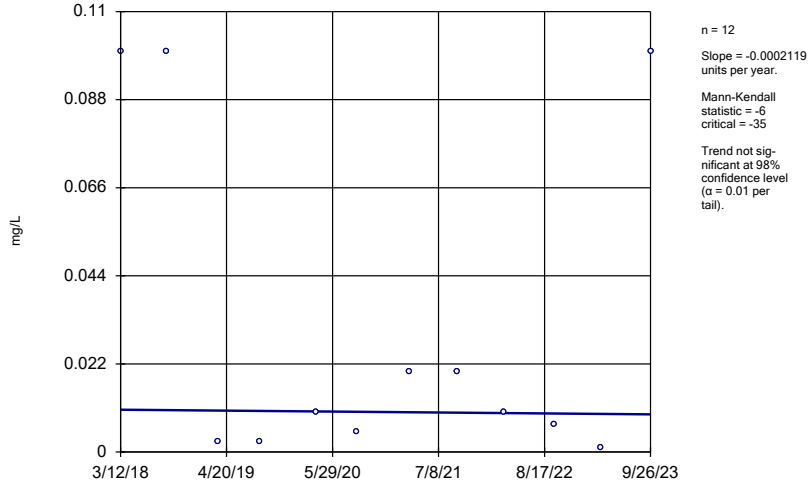
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = -0.0002119 units per year.

Mann-Kendall statistic = -6
critical = -35

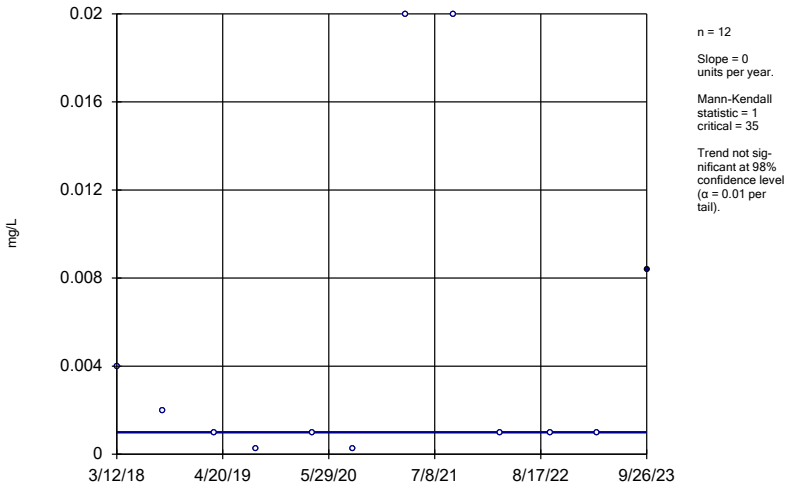
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 35

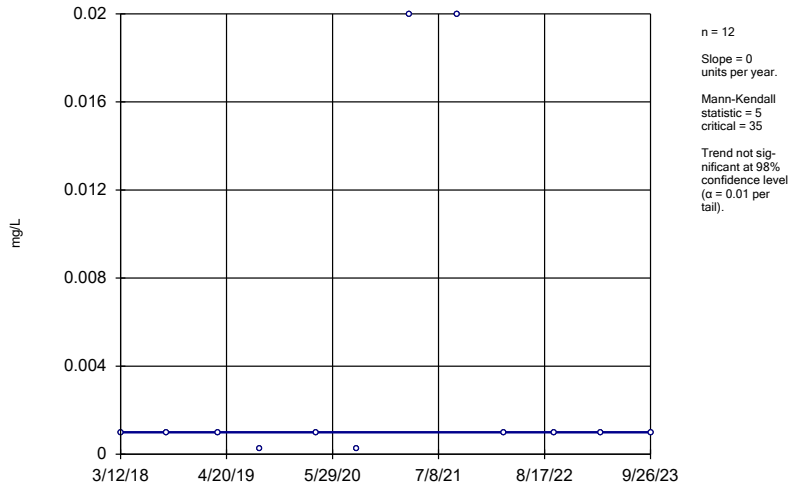
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

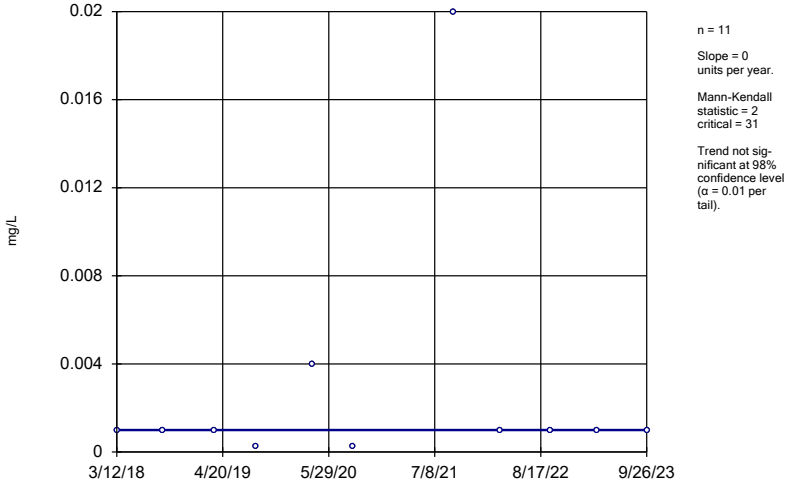
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 31

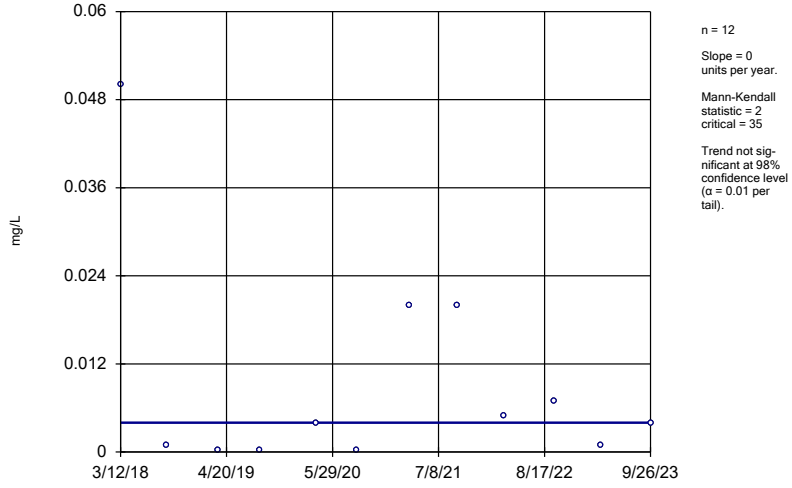
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 35

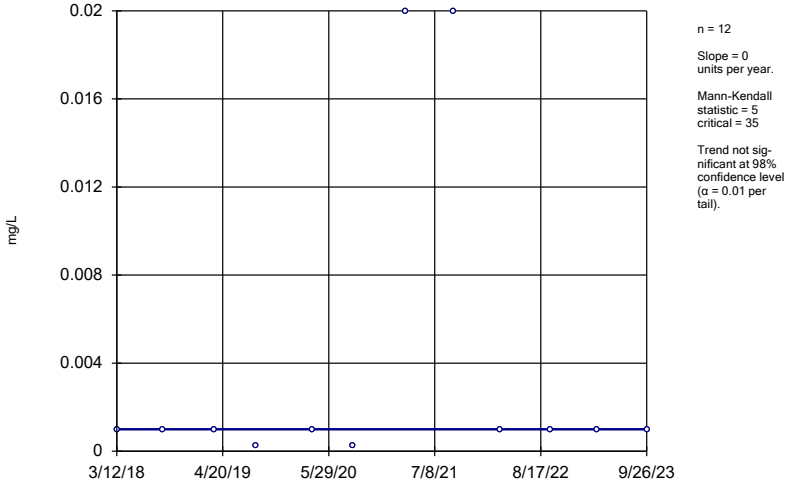
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

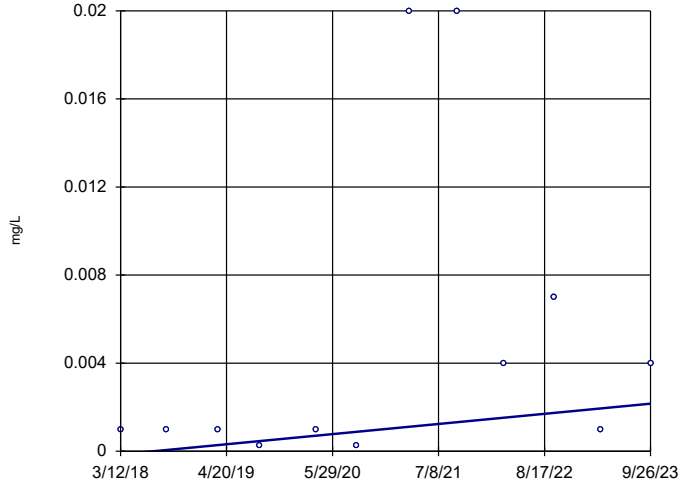
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.0004157 units per year.

Mann-Kendall statistic = 16
critical = 35

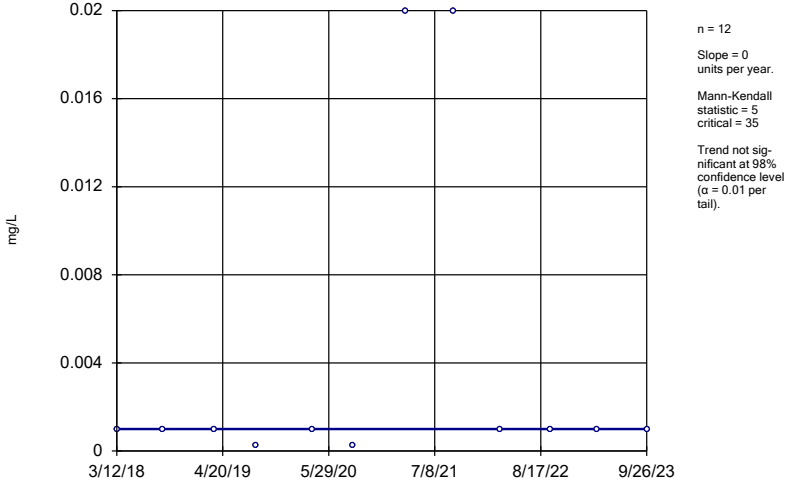
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

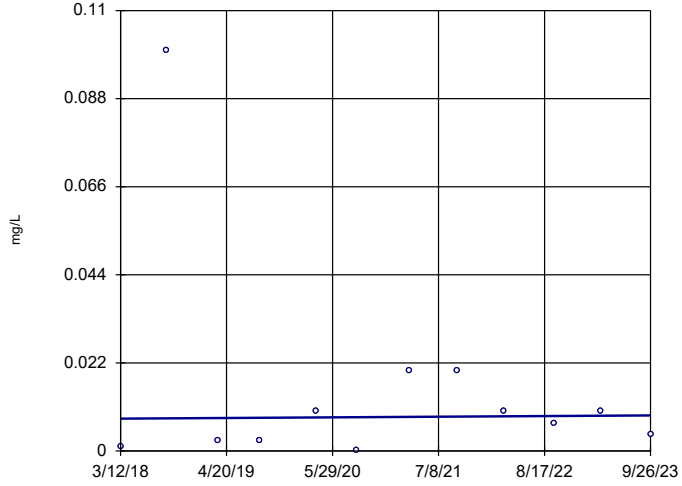
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.0001435 units per year.

Mann-Kendall statistic = 5
critical = 35

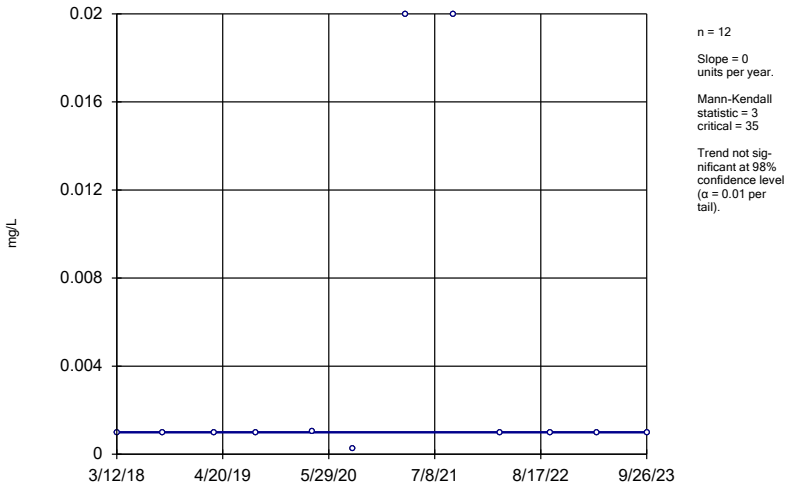
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19

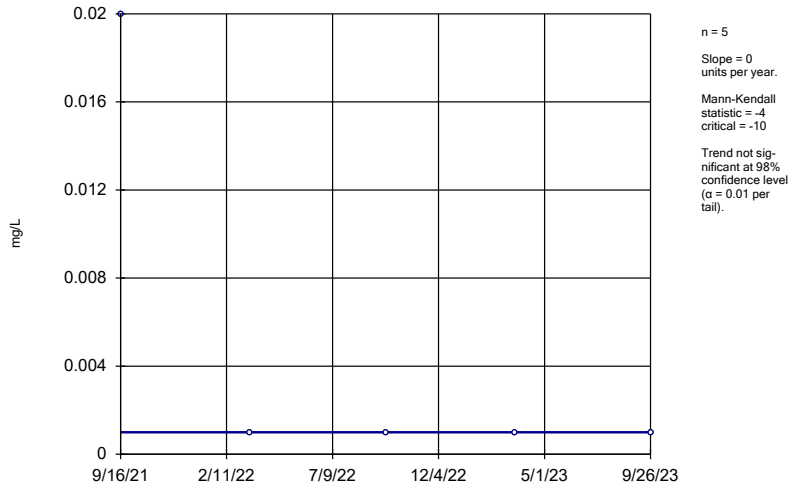


Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20

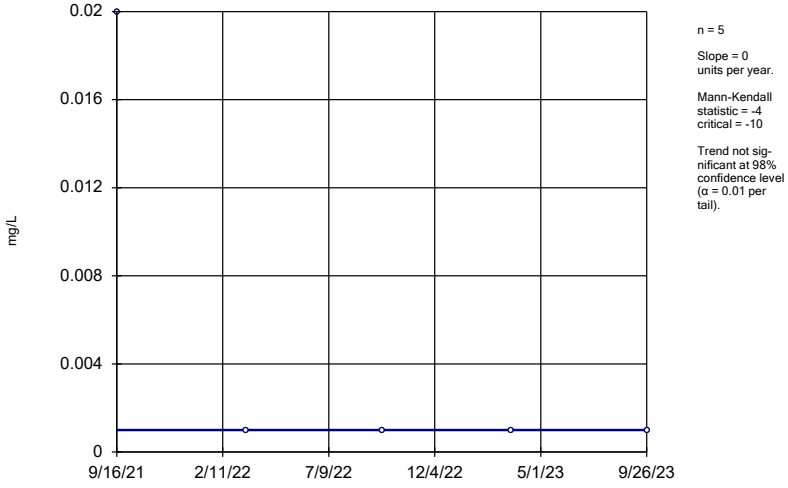


Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

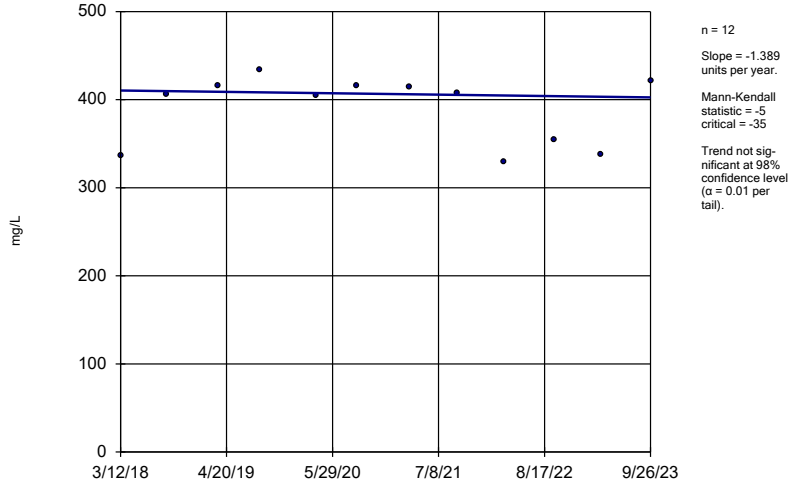


Constituent: Thallium Total Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1A

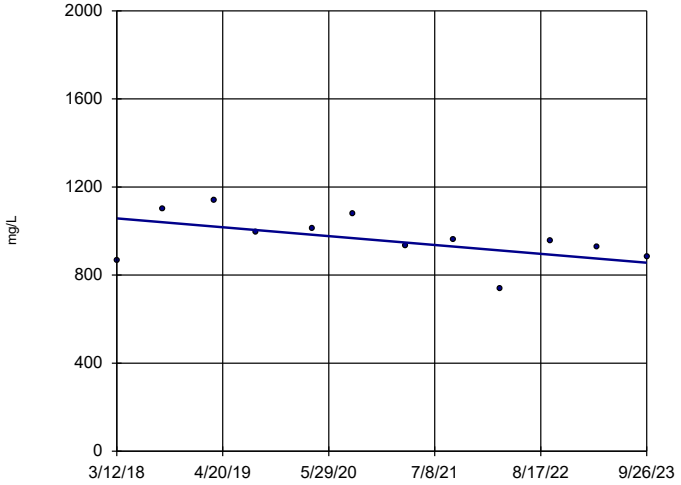


Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-1B (bg)



n = 12

Slope = -36.28 units per year.

Mann-Kendall statistic = -28
critical = -35

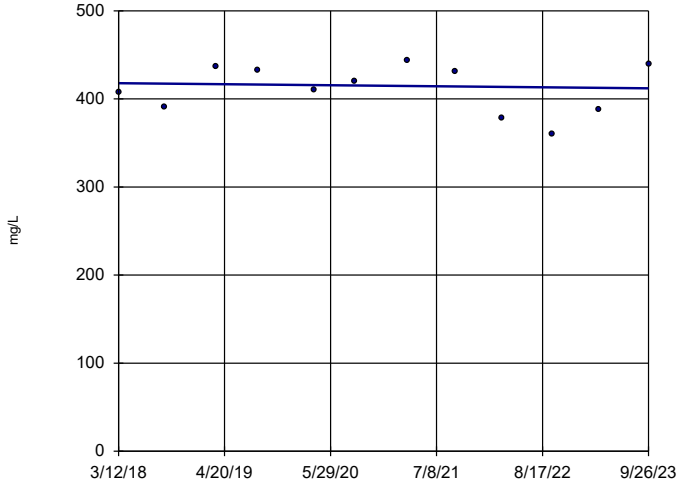
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-3L



n = 12

Slope = -1.035 units per year.

Mann-Kendall statistic = -4
critical = -35

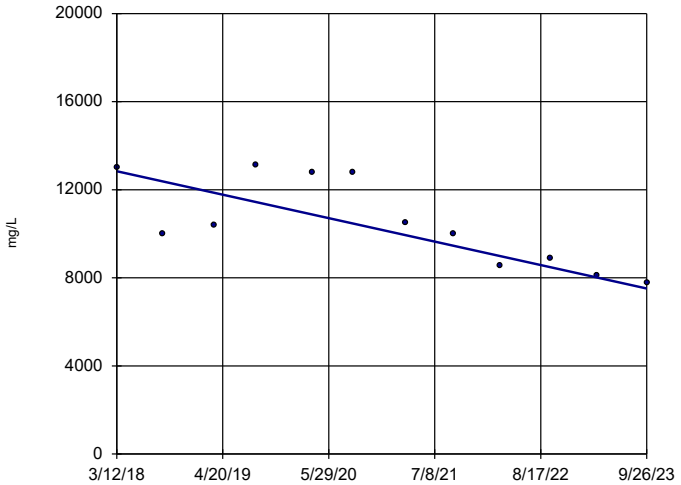
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4



n = 12

Slope = -960 units per year.

Mann-Kendall statistic = -42
critical = -35

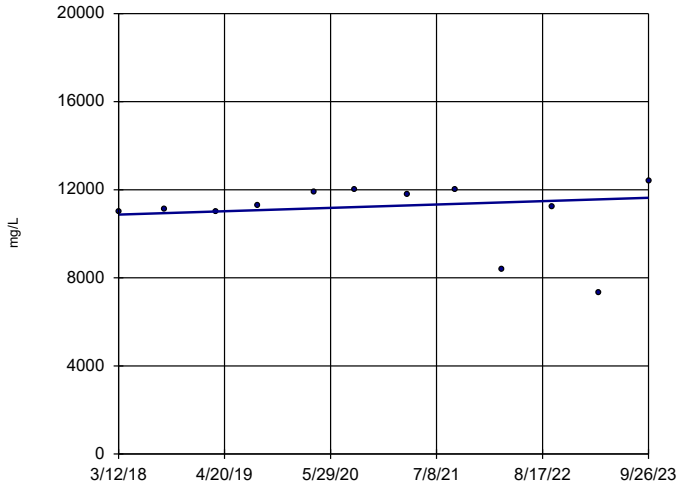
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-4L



n = 12

Slope = 136.5 units per year.

Mann-Kendall statistic = 12
critical = 35

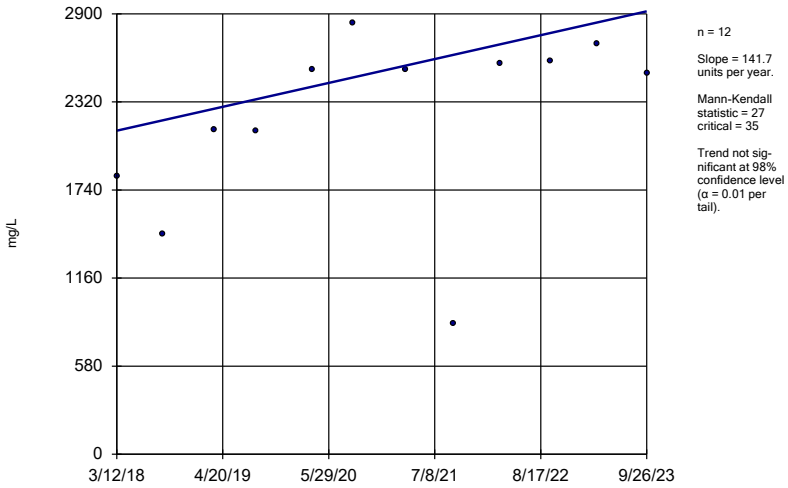
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:56 PM View: Trend Analysis
Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-5



n = 12

Slope = 141.7 units per year.

Mann-Kendall statistic = 27 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

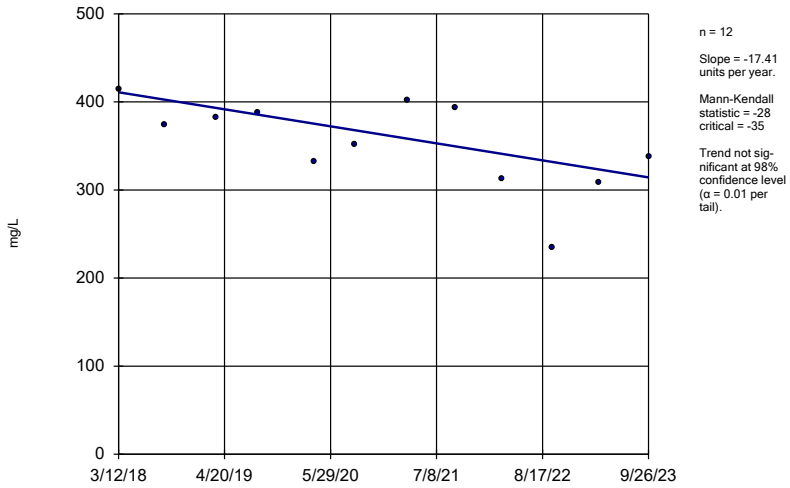
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:56 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = -17.41 units per year.

Mann-Kendall statistic = -28 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

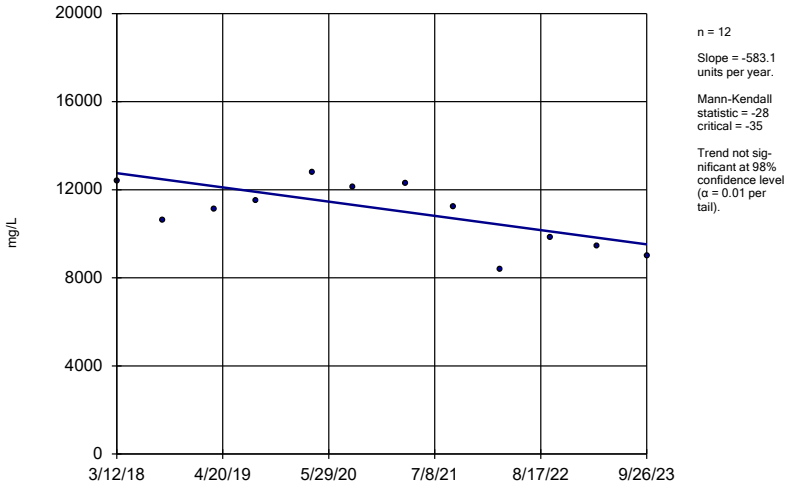
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-11



n = 12

Slope = -583.1 units per year.

Mann-Kendall statistic = -28 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

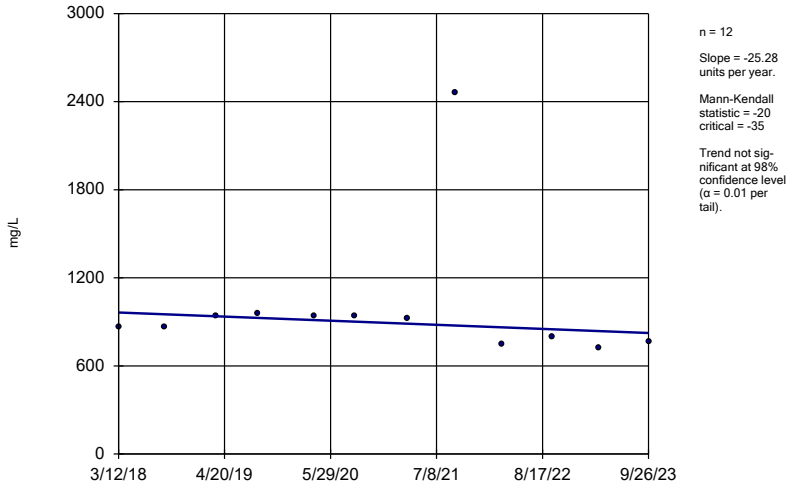
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-12



n = 12

Slope = -25.28 units per year.

Mann-Kendall statistic = -20 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

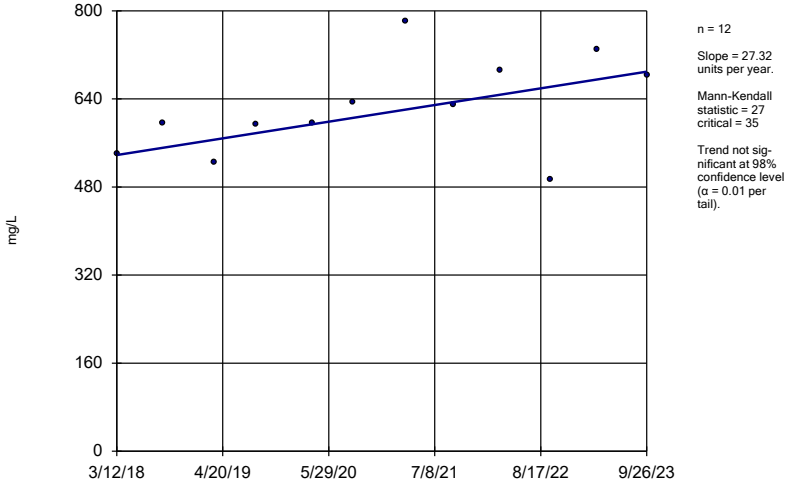
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-2A



n = 12

Slope = 27.32 units per year.

Mann-Kendall statistic = 27 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

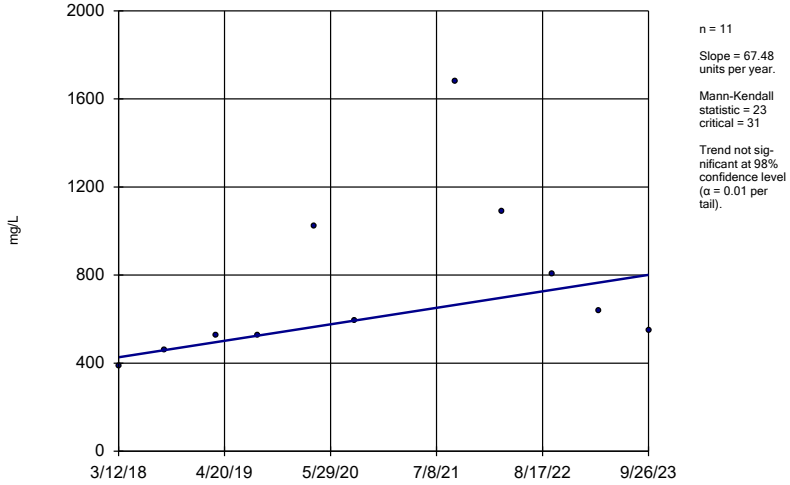
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 67.48 units per year.

Mann-Kendall statistic = 23 critical = 31

Trend not significant at 98% confidence level (α = 0.01 per tail).

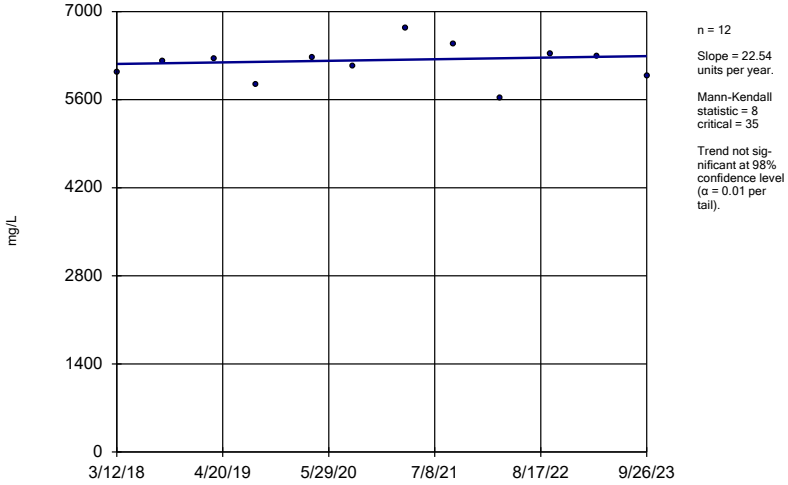
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-14



n = 12

Slope = 22.54 units per year.

Mann-Kendall statistic = 8 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

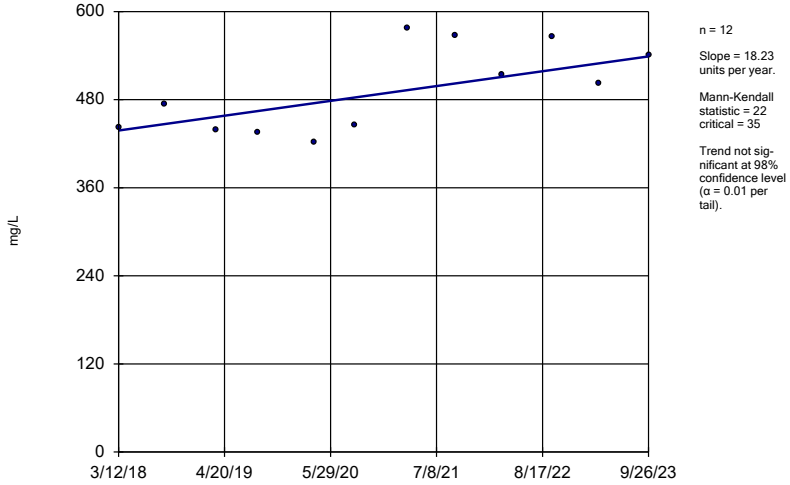
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 18.23 units per year.

Mann-Kendall statistic = 22 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

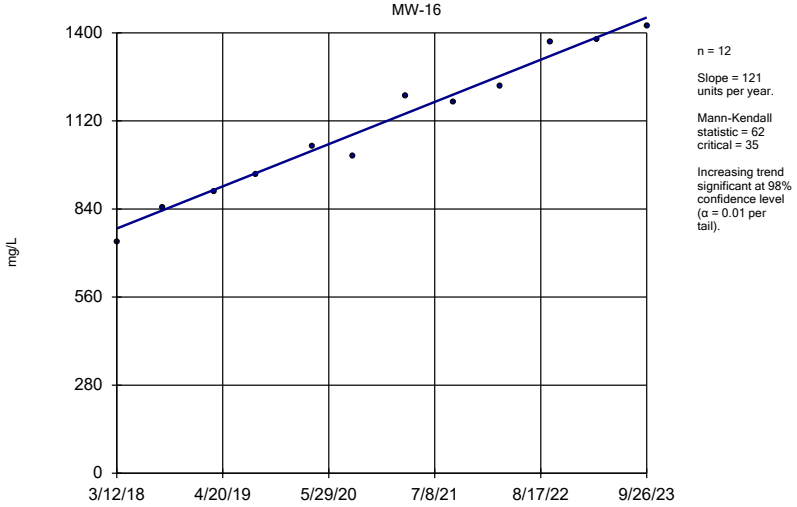
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16



n = 12

Slope = 121 units per year.

Mann-Kendall statistic = 62 critical = 35

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

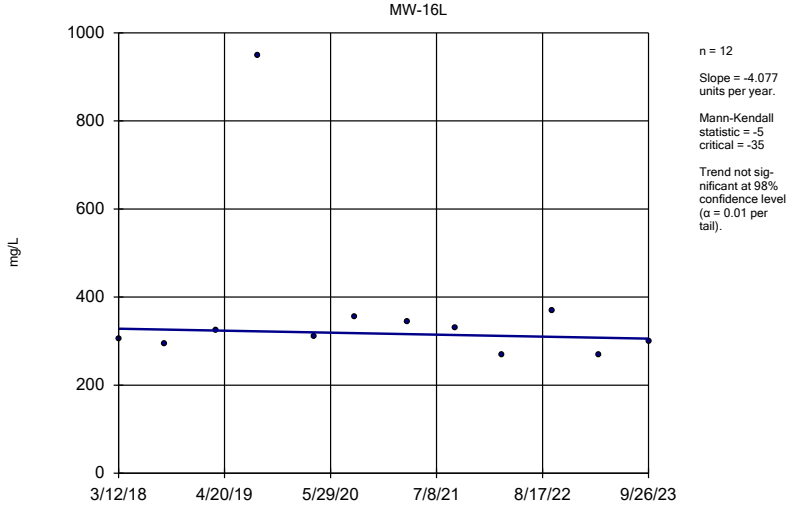
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-16L



n = 12

Slope = -4.077 units per year.

Mann-Kendall statistic = -5 critical = -35

Trend not significant at 98% confidence level (α = 0.01 per tail).

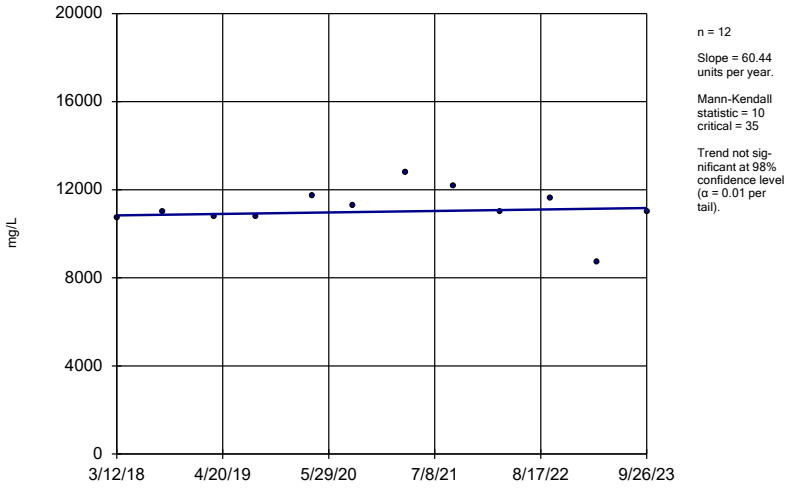
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-18



n = 12

Slope = 60.44 units per year.

Mann-Kendall statistic = 10 critical = 35

Trend not significant at 98% confidence level (α = 0.01 per tail).

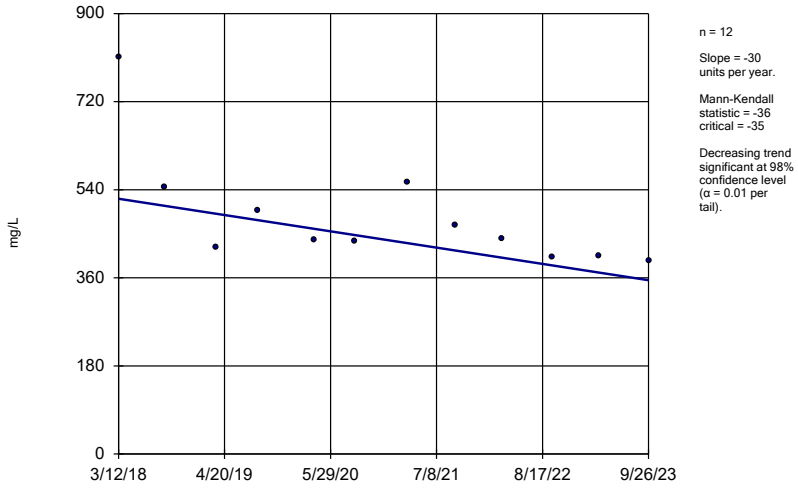
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-19



n = 12

Slope = -30 units per year.

Mann-Kendall statistic = -36 critical = -35

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

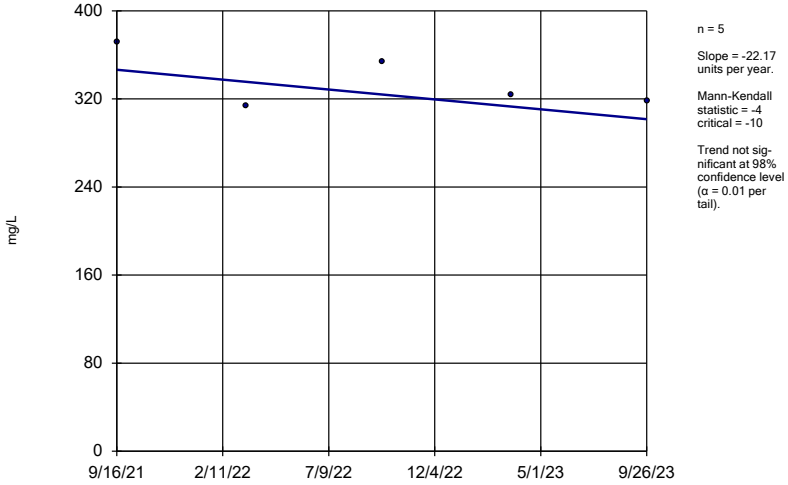
Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis

Continental Cement Data: Import 1

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Sen's Slope Estimator

MW-20

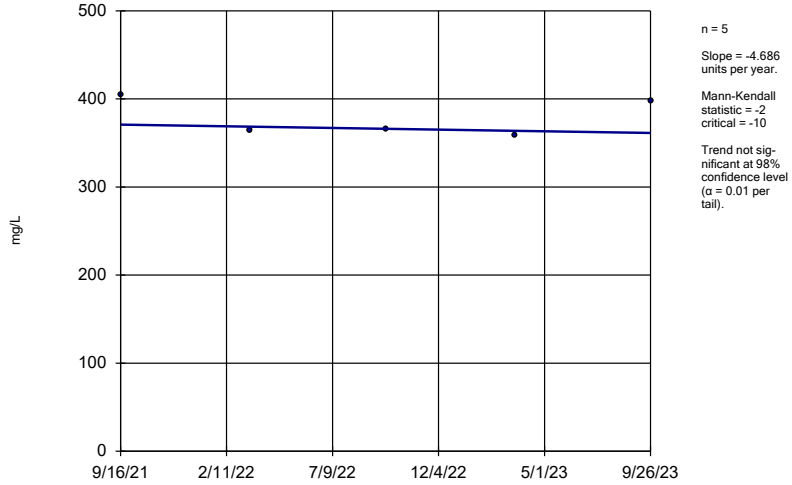


Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Sen's Slope Estimator

MW-21

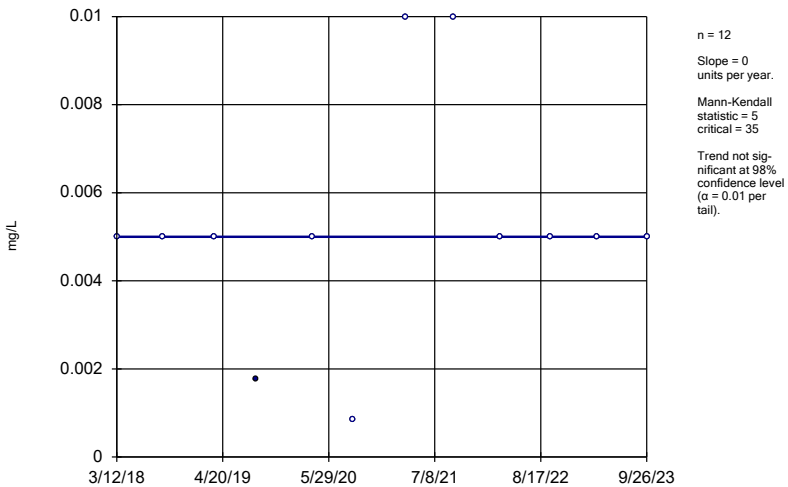


Constituent: Total Dissolved Solids Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

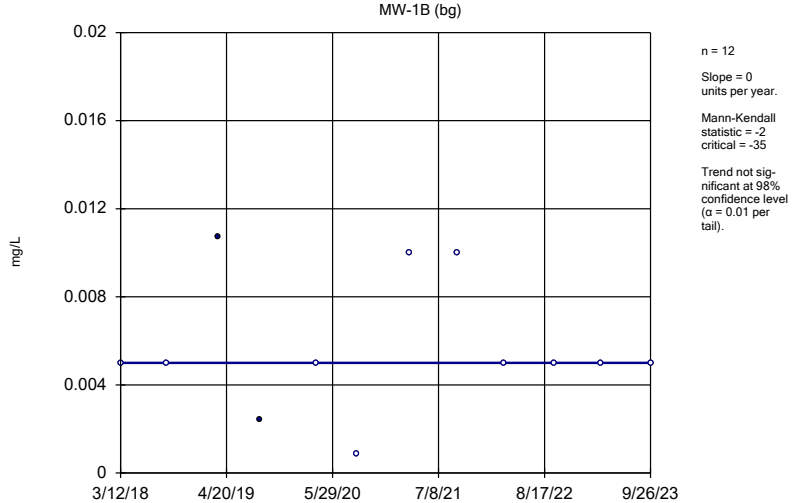


Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

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Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

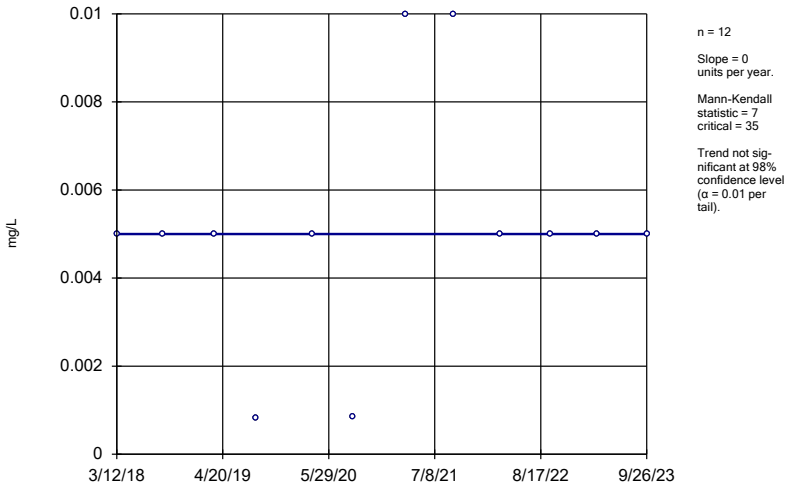


Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

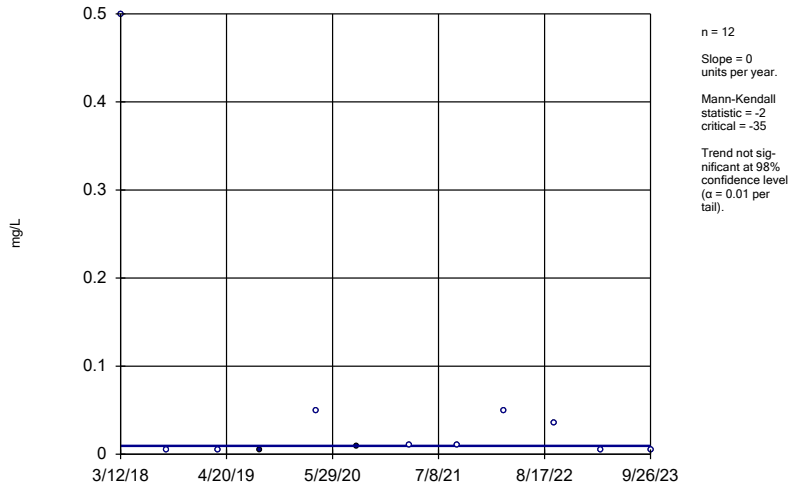


Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4

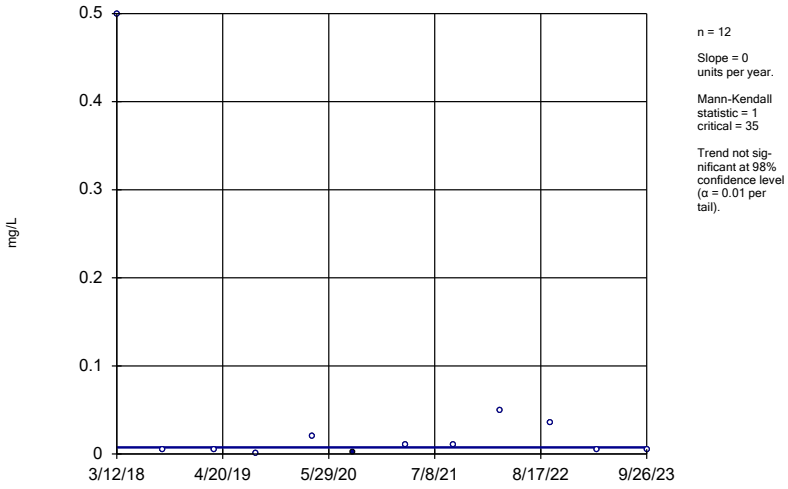


Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L

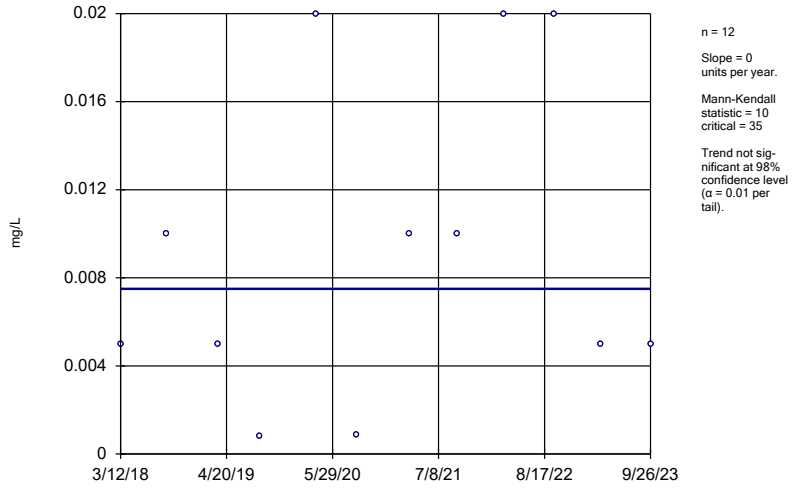


Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

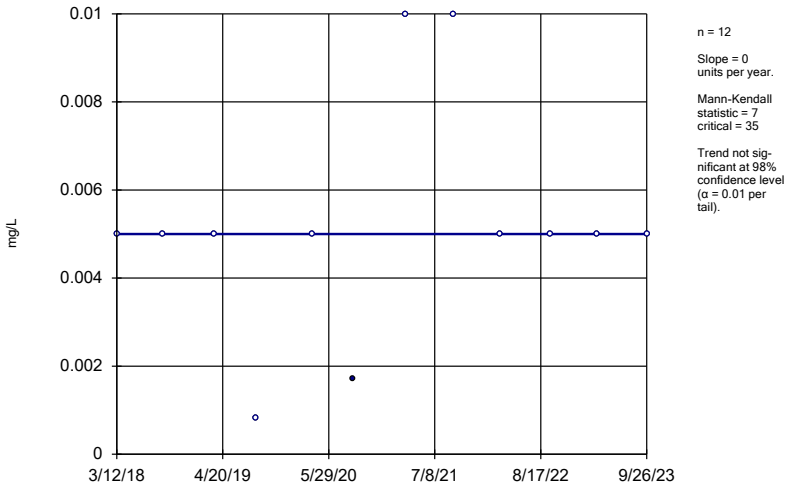


Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = 7
critical = 35

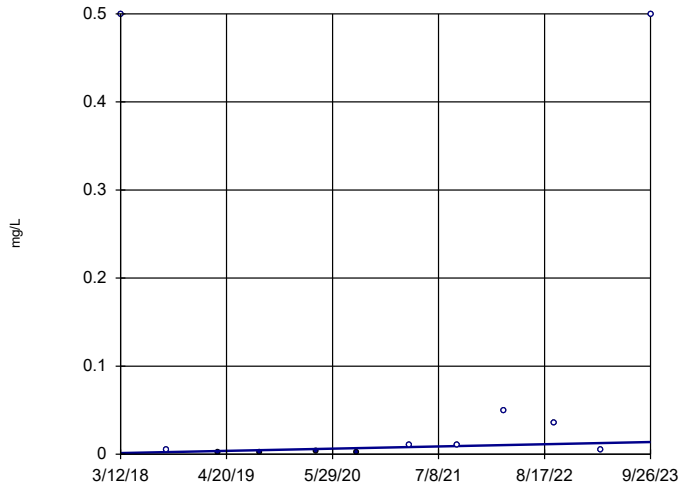
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.002267
units per year.

Mann-Kendall
statistic = 21
critical = 35

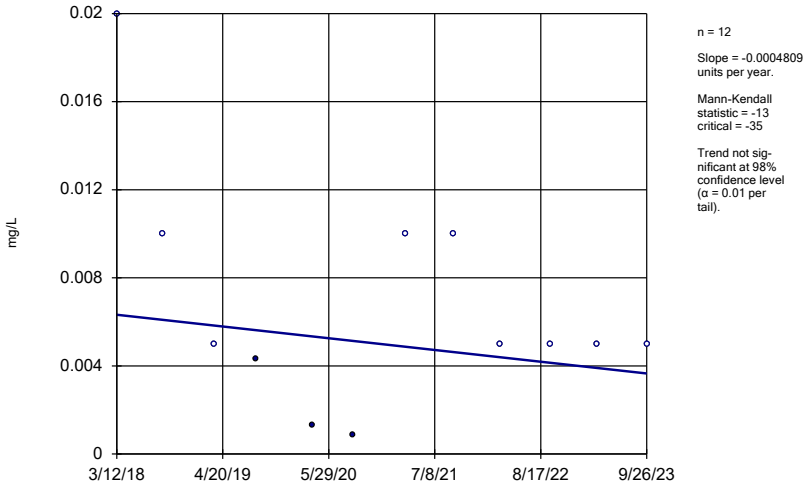
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.0004809
units per year.

Mann-Kendall
statistic = -13
critical = -35

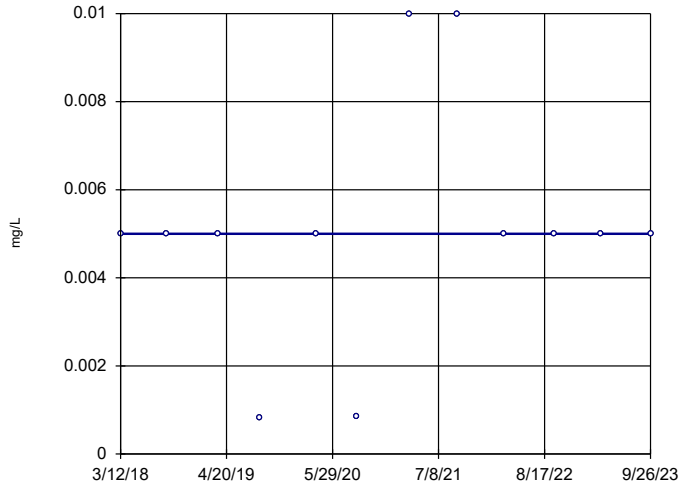
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0
units per year.

Mann-Kendall
statistic = 7
critical = 35

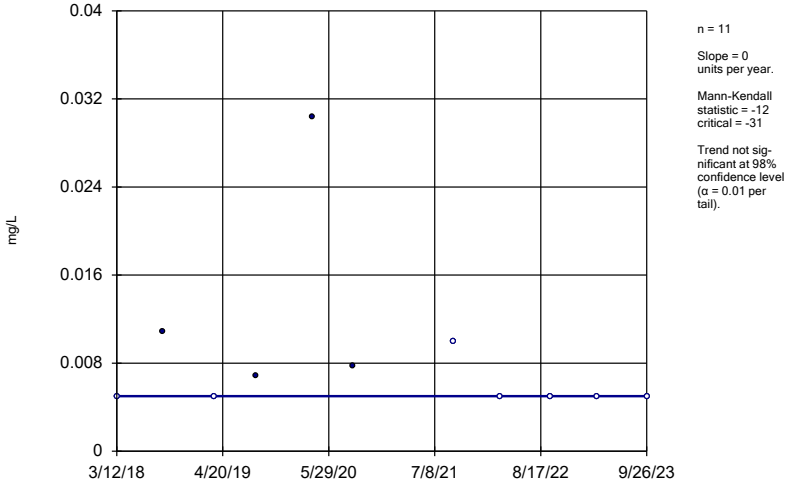
Trend not sig-
nificant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = -12
critical = -31

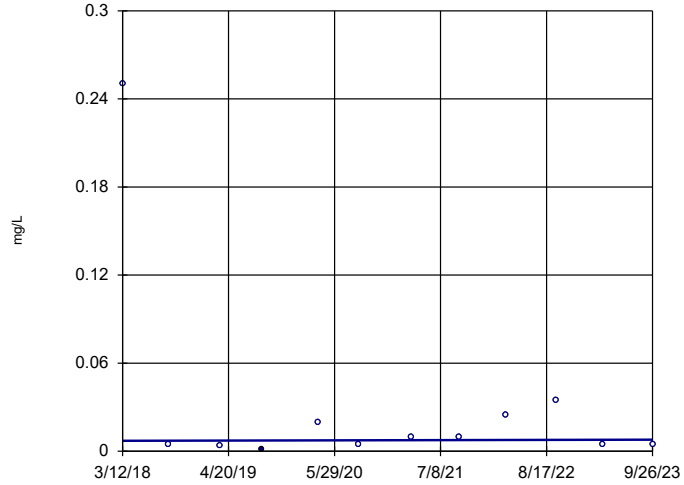
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0.0001507 units per year.

Mann-Kendall statistic = 6
critical = 35

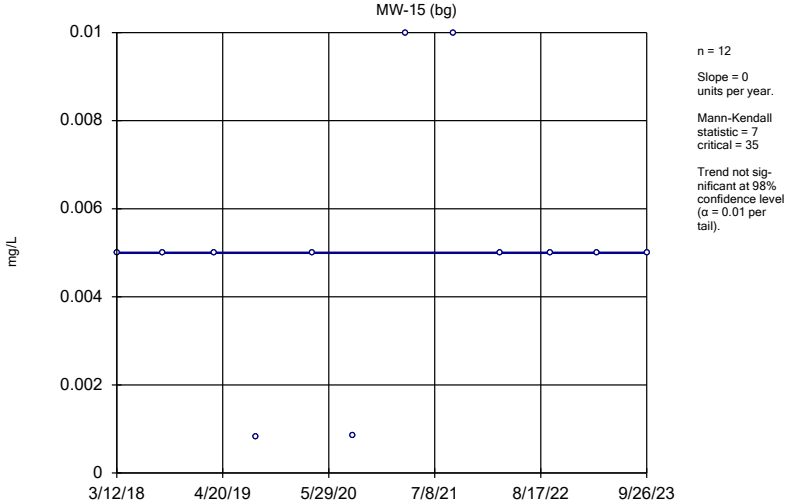
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 7
critical = 35

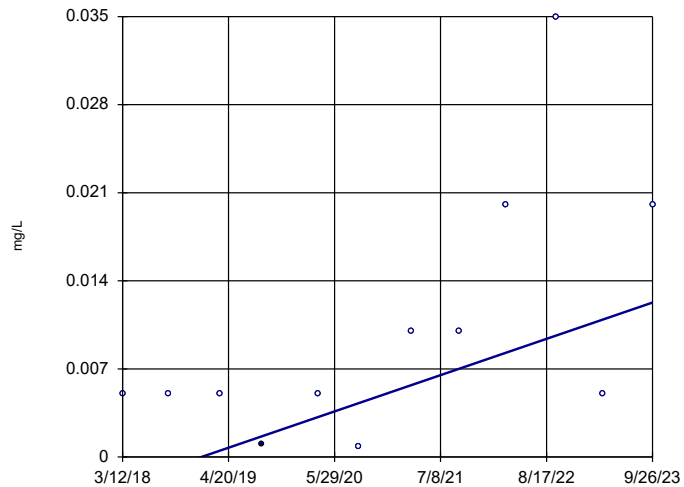
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.002601 units per year.

Mann-Kendall statistic = 28
critical = 35

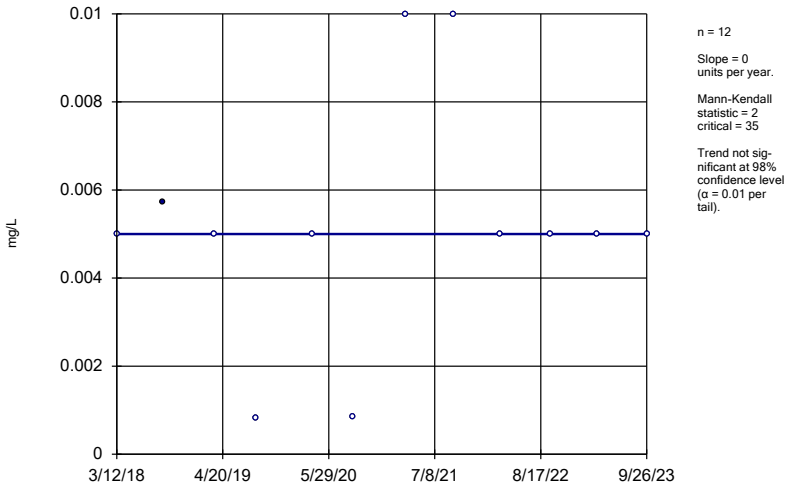
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 2 critical = 35

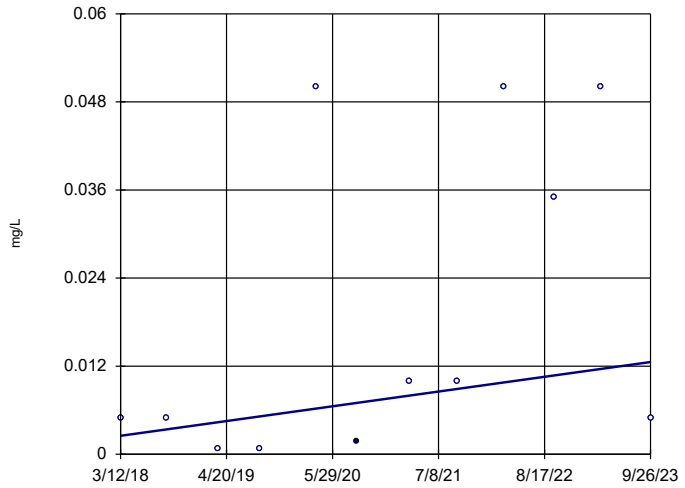
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.001813 units per year.

Mann-Kendall statistic = 24 critical = 35

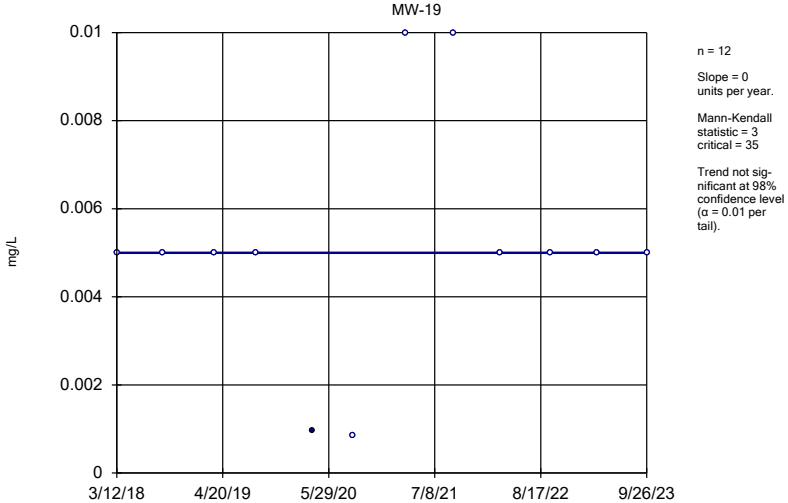
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3 critical = 35

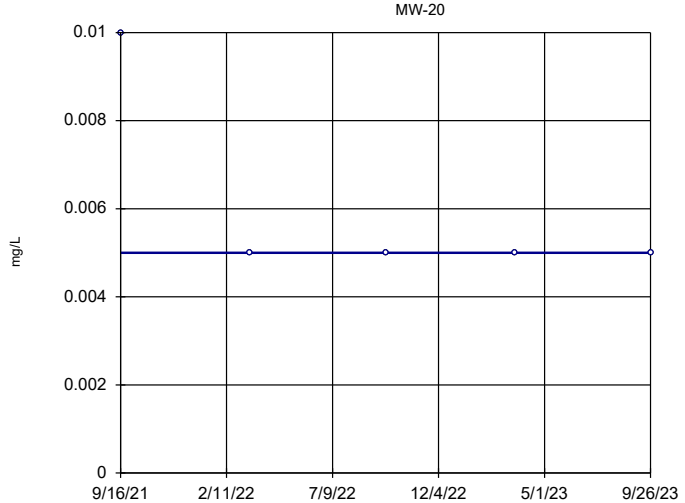
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4 critical = -10

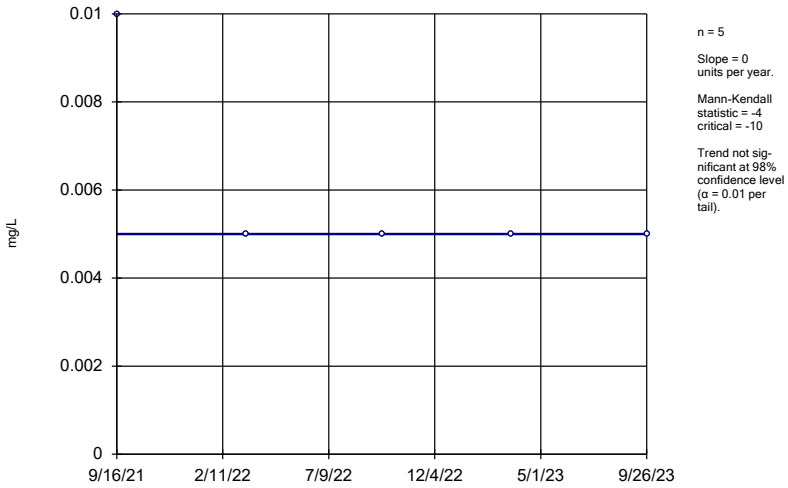
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21

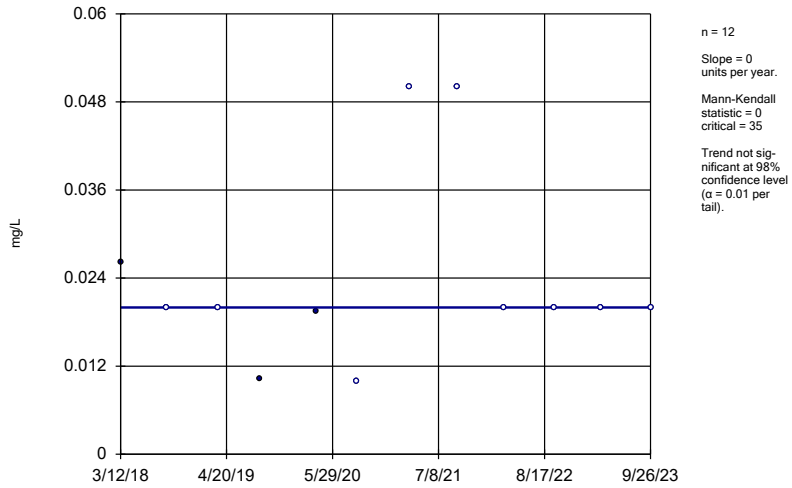


Constituent: Vanadium Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1A

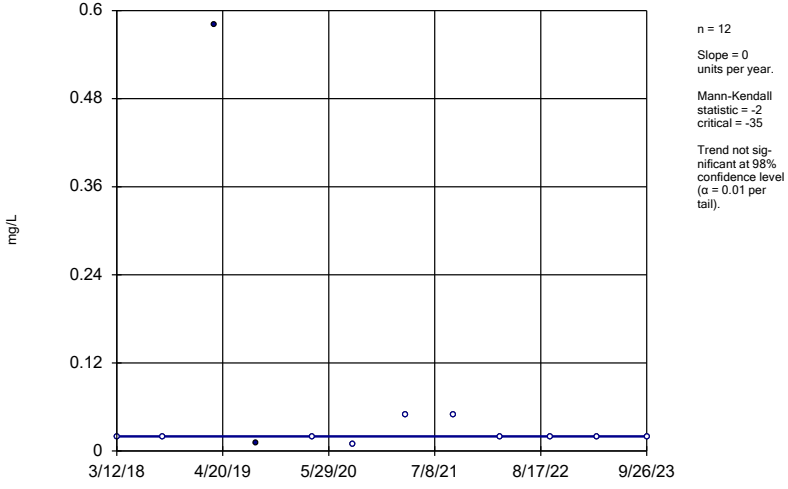


Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1B (bg)

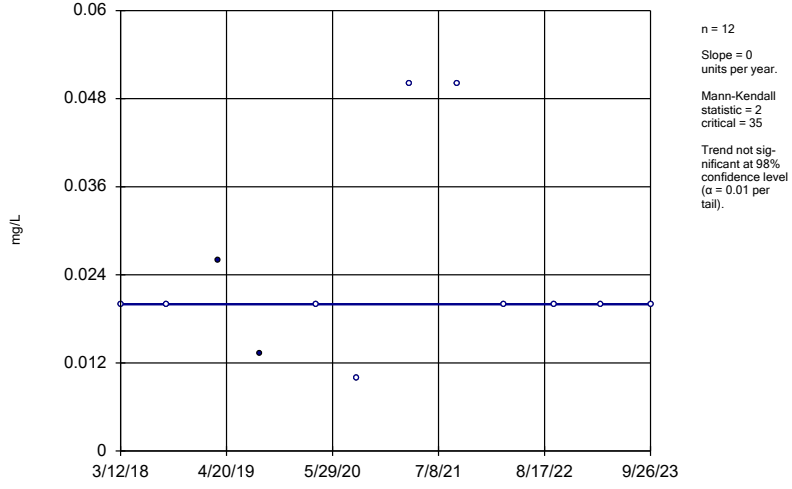


Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3L

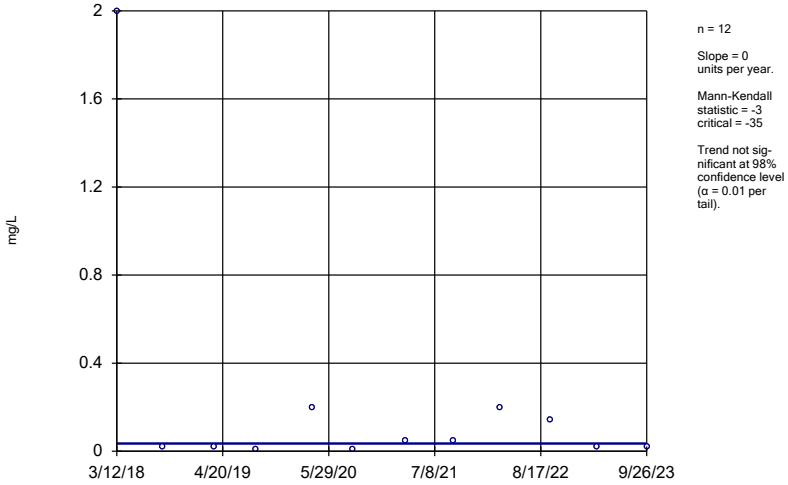


Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -3
critical = -35

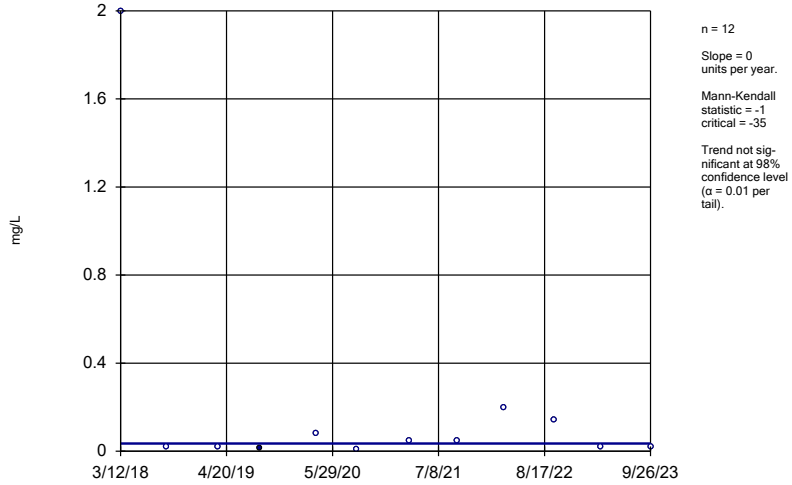
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

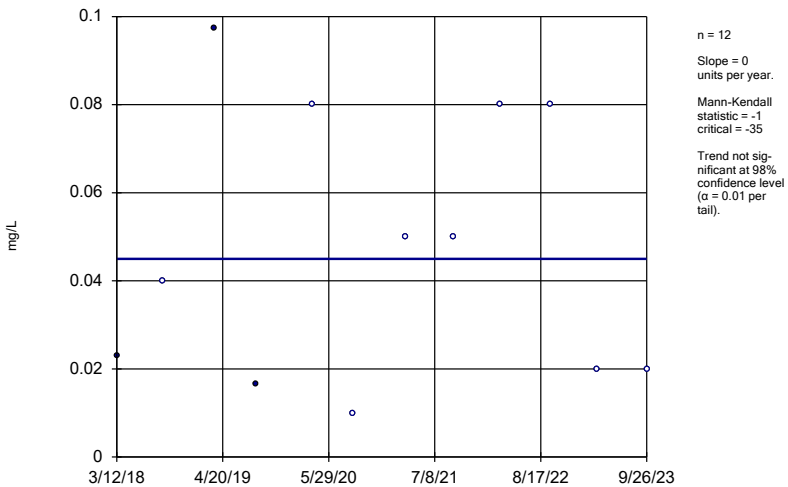
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

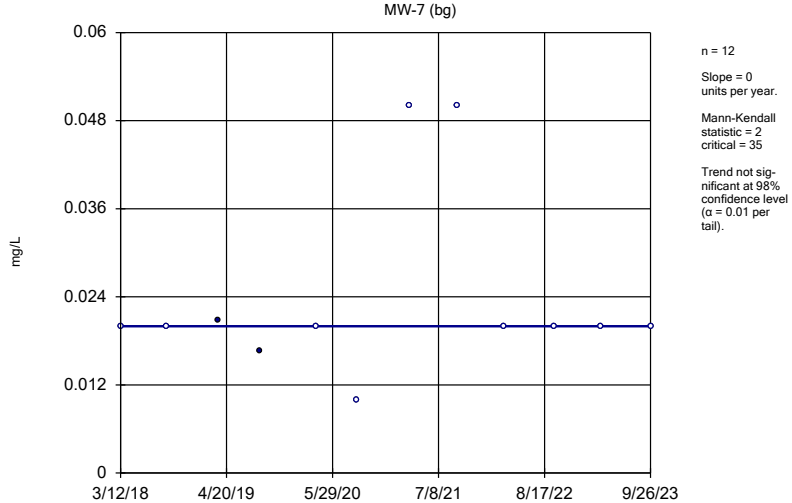
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 35

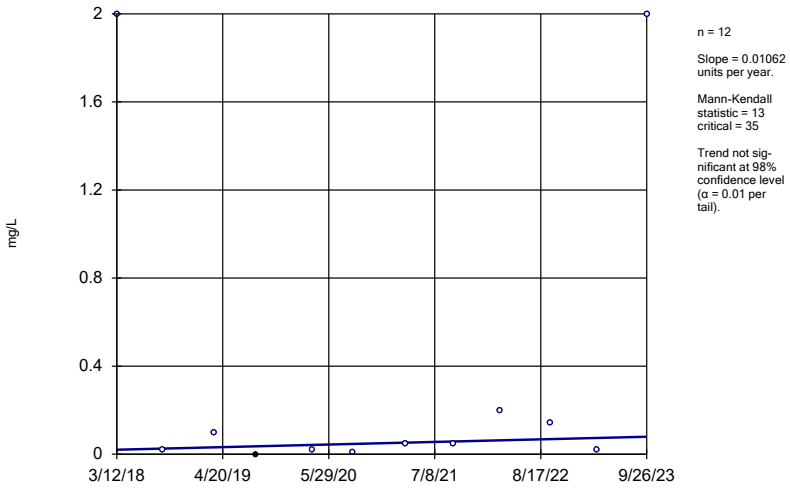
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11



n = 12

Slope = 0.01062 units per year.

Mann-Kendall statistic = 13
critical = 35

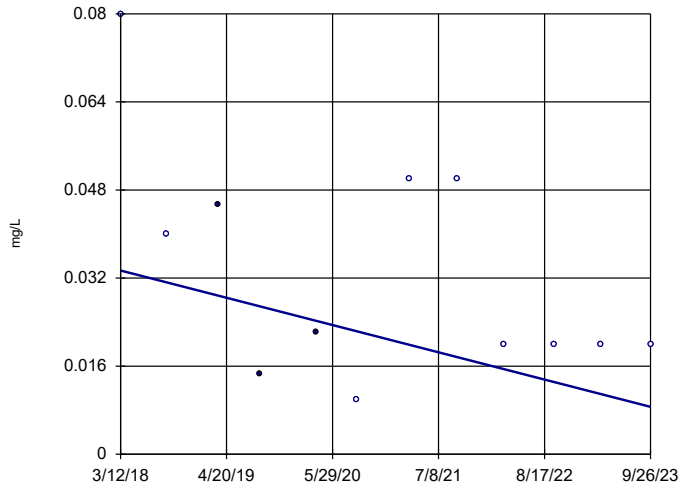
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-12



n = 12

Slope = -0.004463 units per year.

Mann-Kendall statistic = -19
critical = -35

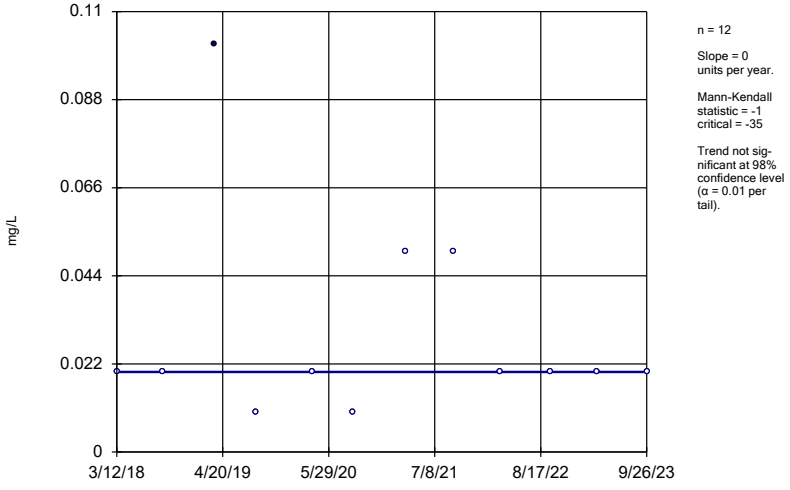
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2A



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -35

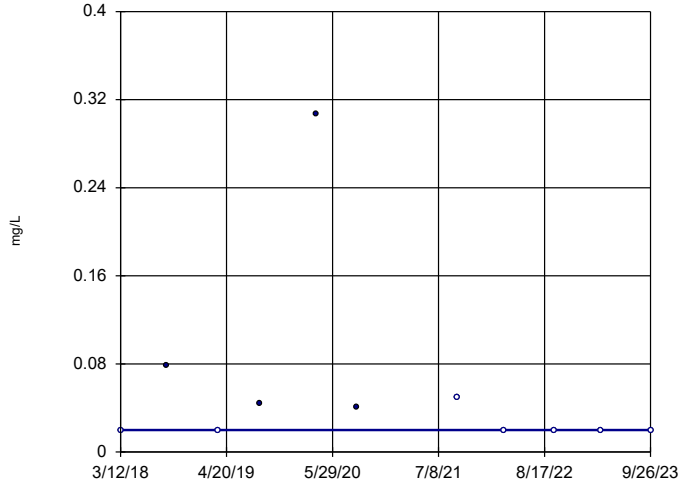
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-13 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = -14
critical = -31

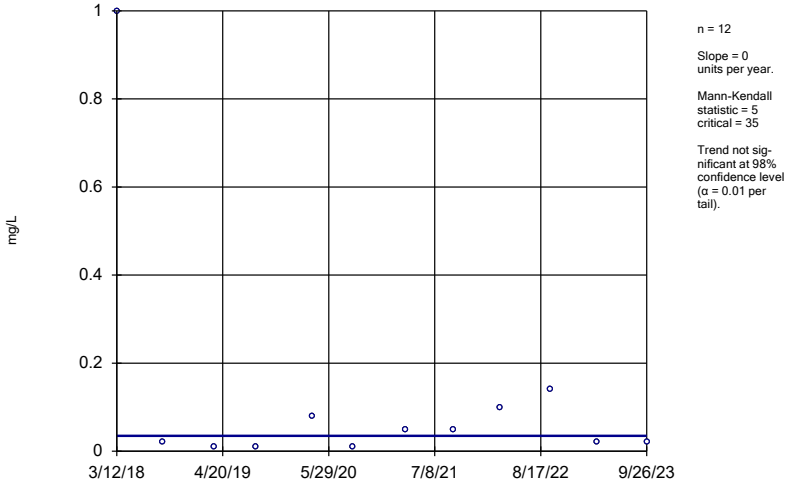
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 35

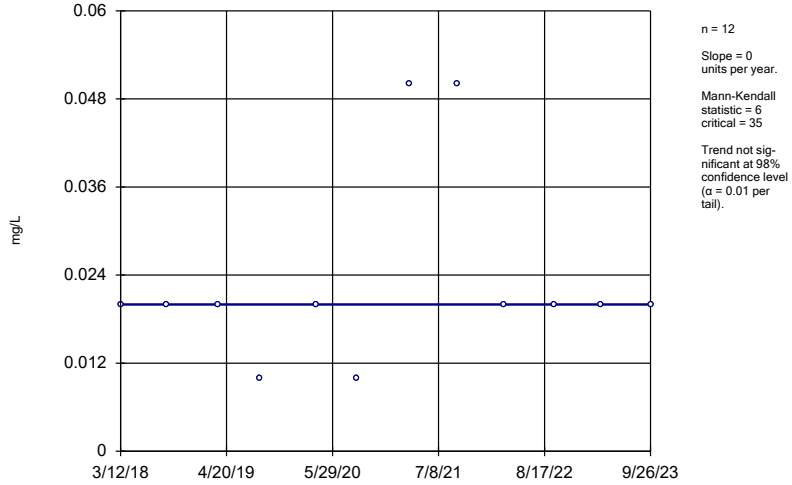
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-15 (bg)



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

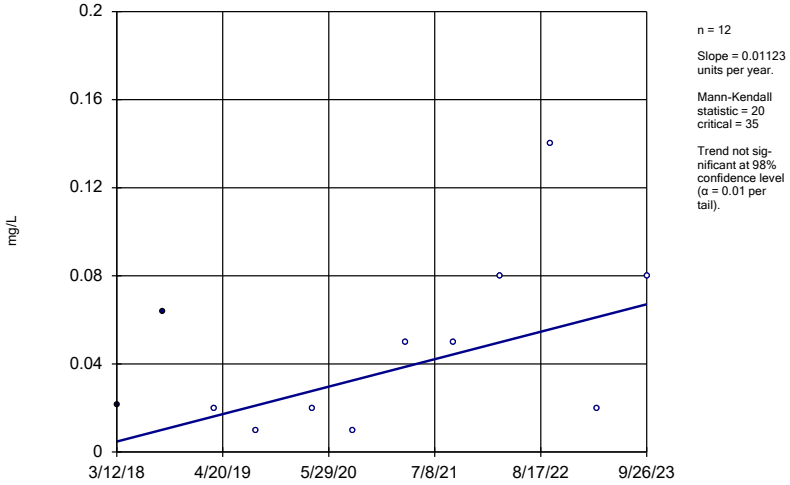
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16



n = 12

Slope = 0.01123 units per year.

Mann-Kendall statistic = 20
critical = 35

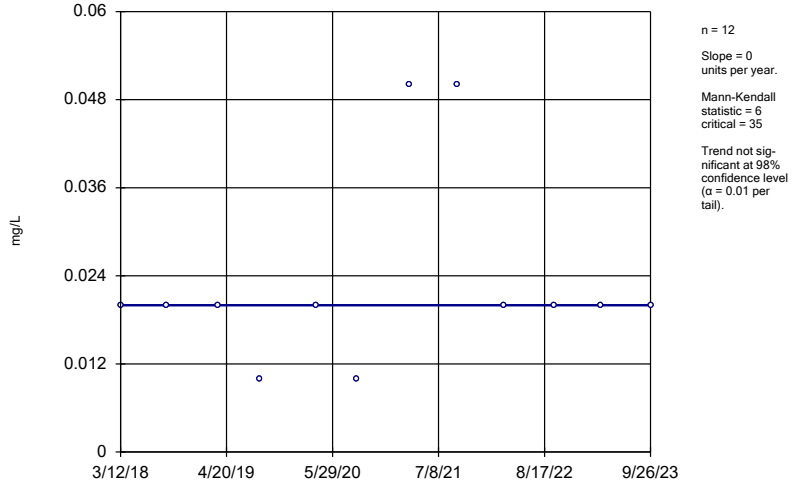
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-16L



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 6
critical = 35

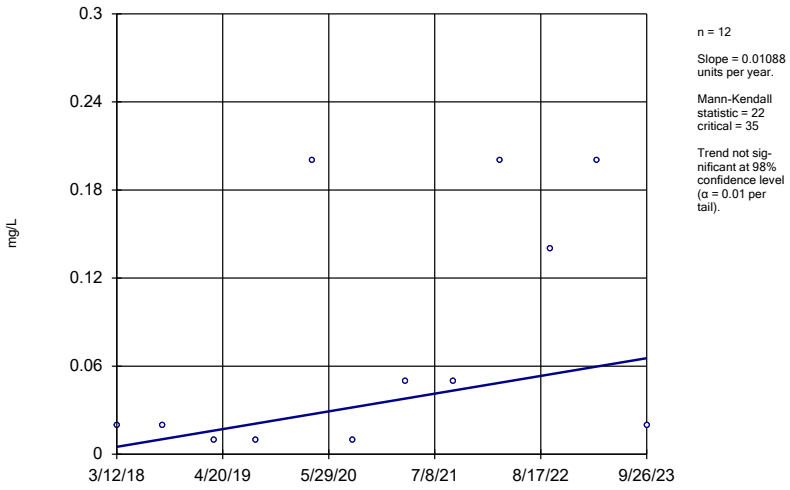
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 12

Slope = 0.01088 units per year.

Mann-Kendall statistic = 22
critical = 35

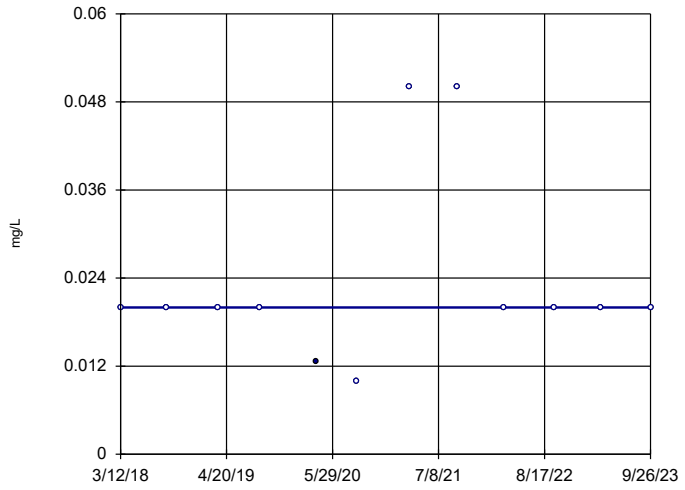
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 35

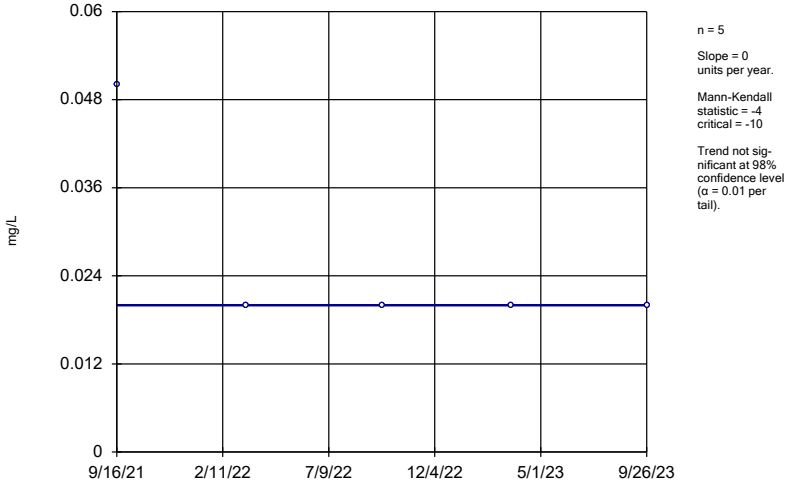
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

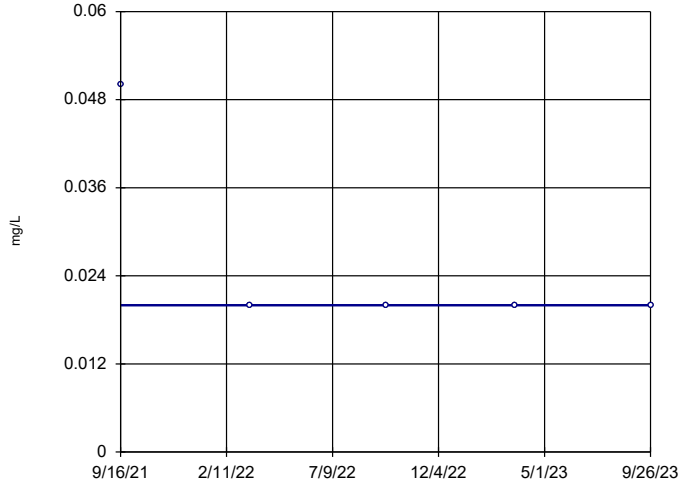
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-21



n = 5

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -10

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Zinc Total Analysis Run 11/22/2023 4:57 PM View: Trend Analysis
Continental Cement Data: Import 1

Trend Test

Continental Cement Data: Import 1 Printed 11/22/2023, 5:01 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Aluminum Total (mg/L)	MW-1A	-0.0138	-22	-35	No	12	58.33	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-1B (bg)	-0.07861	-31	-35	No	12	33.33	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-3L	0	5	35	No	12	100	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-4	-0.184	-22	-35	No	12	83.33	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-4L	0	-1	-35	No	12	91.67	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-5	0	-4	-35	No	12	66.67	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-7 (bg)	0	-8	-35	No	12	58.33	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-11	0.003714	9	35	No	12	75	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-12	-0.03207	-32	-35	No	12	41.67	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-2A	0	5	35	No	12	75	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-13 (bg)	-0.1973	-25	-31	No	11	0	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-14	-0.01112	-10	-35	No	12	91.67	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-15 (bg)	0	8	35	No	12	41.67	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-16	0.01871	16	35	No	12	41.67	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-16L	0	-1	-35	No	12	50	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-18	0.01423	23	35	No	12	83.33	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-19	0	-1	-35	No	12	58.33	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-20	-0.4356	-4	-10	No	5	0	n/a	n/a	0.02	NP
Aluminum Total (mg/L)	MW-21	0	-1	-10	No	5	60	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-1A	0.000...	21	35	No	12	91.67	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-1B (bg)	0.000...	21	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-3L	0.000...	21	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-4	-0.00...	-14	-35	No	12	75	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-4L	0.000...	12	35	No	12	91.67	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-5	0.001273	20	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	**MW-7 (bg)**	**0.000...**	**37**	**35**	**Yes**	**12**	**66.67**	**n/a**	**n/a**	**0.02**	**NP**
Antimony Total (mg/L)	MW-11	0.000...	8	35	No	12	75	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-12	0	3	35	No	12	91.67	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-2A	0.000...	21	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-13 (bg)	0.000...	16	31	No	11	90.91	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-14	0.000...	4	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-15 (bg)	0.000...	21	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-16	0.000697	20	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-16L	0.000...	21	35	No	12	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-18	0.003369	33	35	No	12	83.33	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-19	0.000...	21	35	No	12	91.67	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Antimony Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-1A	0	7	35	No	12	100	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-1B (bg)	0	2	35	No	12	83.33	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-3L	0	7	35	No	12	100	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	**MW-4**	**-0.02631**	**-43**	**-35**	**Yes**	**12**	**16.67**	**n/a**	**n/a**	**0.02**	**NP**
Arsenic Total (mg/L)	MW-4L	-0.00...	-33	-35	No	12	16.67	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-5	0.000...	8	35	No	12	58.33	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-7 (bg)	0	7	35	No	12	100	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-11	-0.00...	-17	-35	No	12	25	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-12	0	-12	-35	No	12	91.67	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-2A	0	7	35	No	12	100	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-13 (bg)	0	2	31	No	11	81.82	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-14	0.000...	7	35	No	12	100	n/a	n/a	0.02	NP

Trend Test

Continental Cement Data: Import 1 Printed 11/22/2023, 5:01 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic Total (mg/L)	MW-15 (bg)	0	14	35	No	12	91.67	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-16	0.001255	22	35	No	12	100	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-16L	0	2	35	No	12	91.67	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-18	0.001352	7	35	No	12	33.33	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-19	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-20	0	-4	-10	No	5	80	n/a	n/a	0.02	NP
Arsenic Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Barium Total (mg/L)	**MW-1A**	**-0.00318**	**-37**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (mg/L)	MW-1B (bg)	-0.00...	-26	-35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-3L	0.001227	27	35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-4	-0.00...	-28	-35	No	12	41.67	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-4L	-0.00...	-15	-35	No	12	25	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-5	0.000...	4	35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-7 (bg)	-0.00...	-6	-35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-11	-0.00...	-5	-35	No	12	33.33	n/a	n/a	0.02	NP
Barium Total (mg/L)	**MW-12**	**-0.00...**	**-39**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (mg/L)	MW-2A	0.000...	10	35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-13 (bg)	-0.00...	-15	-31	No	11	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-14	-0.00...	-27	-35	No	12	16.67	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-15 (bg)	-0.00...	-12	-35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	**MW-16**	**-0.00...**	**-44**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (mg/L)	MW-16L	0.000...	6	35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-18	0.000...	9	35	No	12	33.33	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-19	0.001914	24	35	No	12	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-20	-0.00...	-2	-10	No	5	0	n/a	n/a	0.02	NP
Barium Total (mg/L)	MW-21	-0.00...	-1	-10	No	5	0	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-1A	0	6	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-1B (bg)	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-3L	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-4	0	2	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-4L	0	0	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-5	0.000...	18	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-7 (bg)	0	6	35	No	12	91.67	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-11	0.000...	18	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-12	-0.00...	-25	-35	No	12	91.67	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-2A	0	6	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-13 (bg)	0	2	31	No	11	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-14	0	6	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-15 (bg)	0	6	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-16	0.000...	31	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-16L	0	6	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-18	0.000...	20	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-19	0	6	35	No	12	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-20	0	0	10	No	5	100	n/a	n/a	0.02	NP
Beryllium Total (mg/L)	MW-21	0	0	10	No	5	100	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-1A	11.65	4	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-1B (bg)	-10.74	-3	-10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-3L	10.6	2	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-4	-13.19	-2	-10	No	5	80	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-4L	8.353	4	10	No	5	0	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Bicarbonate Alkalinity (mg/l)	MW-5	25.05	2	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-7 (bg)	-122.9	-6	-10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-11	3.171	0	10	No	5	60	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-12	35.24	4	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-2A	27.32	2	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-13 (bg)	145.8	8	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-14	9.892	6	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-15 (bg)	12.06	3	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-16	7.022	4	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-16L	9.645	6	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-18	-4.024	-2	-10	No	5	40	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-19	7.097	6	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-20	9.24	2	10	No	5	0	n/a	n/a	0.02	NP
Bicarbonate Alkalinity (mg/l)	MW-21	13.02	4	10	No	5	0	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-1A	0	-5	-35	No	12	0	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-1B (bg)	-0.00...	-22	-35	No	12	66.67	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-3L	0.002806	13	35	No	12	0	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-4	-0.2833	-17	-35	No	12	58.33	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-4L	-0.03816	-11	-35	No	12	50	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-5	0.02264	20	35	No	12	66.67	n/a	n/a	0.02	NP
Boron Total (mg/L)	**MW-7 (bg)**	**-0.00...**	**-39**	**-35**	**Yes**	**12**	**25**	**n/a**	**n/a**	**0.02**	**NP**
Boron Total (mg/L)	MW-11	-0.02368	-9	-35	No	12	50	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-12	0.04704	29	35	No	12	8.333	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-2A	-0.01708	-32	-35	No	12	58.33	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-13 (bg)	-0.00...	-9	-31	No	11	9.091	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-14	-0.1114	-24	-35	No	12	66.67	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-15 (bg)	0.001948	4	35	No	12	0	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-16	-0.00...	-4	-35	No	12	16.67	n/a	n/a	0.02	NP
Boron Total (mg/L)	**MW-16L**	**-0.01182**	**-40**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Boron Total (mg/L)	MW-18	0.01855	5	35	No	12	58.33	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-19	0.005696	14	35	No	12	0	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-20	0.01645	4	10	No	5	0	n/a	n/a	0.02	NP
Boron Total (mg/L)	MW-21	0.009382	4	10	No	5	0	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-1A	0	2	13	No	6	83.33	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-1B (bg)	0	5	13	No	6	83.33	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-3L	0	0	13	No	6	83.33	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-4	295.2	3	10	No	5	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-4L	295.2	3	10	No	5	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-5	0	1	13	No	6	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-7 (bg)	6.388	1	10	No	5	80	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-11	295.2	3	10	No	5	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-12	-2.453	-1	-10	No	5	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-2A	-2.46	-1	-10	No	5	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-13 (bg)	244.2	1	8	No	4	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-14	334.5	3	10	No	5	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-15 (bg)	-2.46	-1	-10	No	5	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-16	0	1	13	No	6	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-16L	21.1	4	13	No	6	66.67	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-18	73.99	4	13	No	6	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-19	6.793	1	10	No	5	80	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Bromate (ug/L)	MW-20	284.7	2	8	No	4	100	n/a	n/a	0.02	NP
Bromate (ug/L)	MW-21	0	4	10	No	5	100	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-1A	0	-6	-35	No	12	91.67	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-1B (bg)	-0.00...	-12	-35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-3L	-0.00...	-11	-35	No	12	66.67	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-4	-0.00...	-27	-35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-4L	-0.00...	-11	-35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-5	-0.00...	-13	-35	No	12	100	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-7 (bg)	-0.00...	-7	-35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-11	-0.00...	-8	-35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-12	-0.00...	-28	-35	No	12	58.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-2A	0	-1	-35	No	12	91.67	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-13 (bg)	-0.00...	-22	-31	No	11	72.73	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-14	-0.00...	-10	-35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-15 (bg)	-0.00...	-7	-35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-16	0.000...	9	35	No	12	91.67	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-16L	0	-4	-35	No	12	100	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-18	0.000...	11	35	No	12	83.33	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-19	-0.00...	-12	-35	No	12	91.67	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-20	0	-1	-10	No	5	100	n/a	n/a	0.02	NP
Cadmium Total (mg/L)	MW-21	0	-1	-10	No	5	100	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-1A	-0.3918	-3	-35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-1B (bg)	-7.033	-24	-35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-3L	2.203	24	35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-4	-0.6073	-10	-35	No	12	41.67	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-4L	-0.3428	-13	-35	No	12	33.33	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-5	25.45	18	35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-7 (bg)	-4.062	-24	-35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-11	-0.7569	-17	-35	No	12	41.67	n/a	n/a	0.02	NP
Calcium (mg/L)	**MW-12**	**-11.95**	**-38**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium (mg/L)	MW-2A	5.784	22	35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-13 (bg)	-12.98	-21	-31	No	11	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-14	-6.01	-14	-35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	**MW-15 (bg)**	**4.161**	**36**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium (mg/L)	MW-16	6.657	33	35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-16L	-0.1772	-6	-35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-18	-0.2876	-9	-35	No	12	41.67	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-19	-0.756	-4	-35	No	12	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-20	-2.932	-2	-10	No	5	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-21	5.208	4	10	No	5	0	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-1A	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-1B (bg)	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-3L	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-4	-72	0	10	No	5	0	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-4L	111.2	3	10	No	5	0	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-5	-6.166	-5	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-7 (bg)	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-11	-189.8	-4	-10	No	5	0	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-12	-6.179	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-2A	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Carbonate Alkalinity (mg/l)	MW-13 (bg)	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-14	-6.179	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-15 (bg)	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-16	-6.179	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-16L	-6.179	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-18	-82.41	-2	-10	No	5	0	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-19	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-20	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Carbonate Alkalinity (mg/l)	MW-21	-6.172	-8	-10	No	5	100	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-1A	-0.03132	-14	-35	No	12	8.333	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-1B (bg)	-1.014	-26	-35	No	12	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-3L	-0.5973	-30	-35	No	12	0	n/a	n/a	0.02	NP
Chloride (mg/L)	**MW-4**	**-159.9**	**-50**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	MW-4L	-7.096	-9	-35	No	12	0	n/a	n/a	0.02	NP
Chloride (mg/L)	**MW-5**	**96.47**	**40**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	MW-7 (bg)	0.3239	11	35	No	12	25	n/a	n/a	0.02	NP
Chloride (mg/L)	**MW-11**	**-77.29**	**-44**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	MW-12	-5.357	-24	-35	No	12	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-2A	-1.982	-6	-35	No	12	8.333	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-13 (bg)	27.85	17	31	No	11	0	n/a	n/a	0.02	NP
Chloride (mg/L)	**MW-14**	**12.08**	**36**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**MW-15 (bg)**	**3.065**	**44**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**MW-16**	**15.53**	**50**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	MW-16L	-0.02205	-4	-35	No	12	16.67	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-18	-0.9876	-3	-35	No	12	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-19	-2.968	-24	-35	No	12	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-20	0.3516	2	10	No	5	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-21	-0.2146	-4	-10	No	5	0	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-1A	0	-2	-35	No	12	83.33	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-1B (bg)	0	0	35	No	12	83.33	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-3L	0	7	35	No	12	100	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-4	0	-5	-35	No	12	83.33	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-4L	0	1	35	No	12	91.67	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-5	0	8	35	No	12	91.67	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-7 (bg)	0	7	35	No	12	100	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-11	0	9	35	No	12	83.33	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-12	-0.00...	-15	-35	No	12	83.33	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-2A	0	-6	-35	No	12	83.33	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-13 (bg)	0	2	31	No	11	63.64	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-14	0	6	35	No	12	91.67	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-15 (bg)	0	7	35	No	12	100	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-16	0.000...	24	35	No	12	91.67	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-16L	0	-2	-35	No	12	83.33	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-18	0.001136	22	35	No	12	91.67	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-19	0	1	35	No	12	91.67	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-20	0	0	10	No	5	100	n/a	n/a	0.02	NP
Chromium Total (mg/L)	MW-21	0	0	10	No	5	100	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-1A	0	-9	-35	No	12	58.33	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-1B (bg)	-0.00...	-20	-35	No	12	41.67	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-3L	0.000...	12	35	No	12	33.33	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt Total (mg/L)	MW-4	0	-5	-35	No	12	75	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-4L	0	-1	-35	No	12	83.33	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-5	-0.00...	-28	-35	No	12	33.33	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-7 (bg)	0.000...	6	35	No	12	41.67	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-11	0.000...	11	35	No	12	66.67	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-12	-0.00...	-14	-35	No	12	8.333	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-2A	0.000...	4	35	No	12	41.67	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-13 (bg)	-0.00...	-7	-31	No	11	9.091	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-14	-0.00...	-8	-35	No	12	33.33	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-15 (bg)	0.000...	26	35	No	12	33.33	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-16	0.000...	25	35	No	12	66.67	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-16L	0	0	35	No	12	83.33	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-18	0.000...	17	35	No	12	75	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-19	0.001805	26	35	No	12	0	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-20	0	-1	-10	No	5	80	n/a	n/a	0.02	NP
Cobalt Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-1A	-0.00...	-16	-35	No	12	75	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-1B (bg)	-0.00...	-18	-35	No	12	75	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-3L	0	5	35	No	12	100	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-4	0	-4	-35	No	12	100	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-4L	0	-1	-35	No	12	100	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-5	0.00248	21	35	No	12	100	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-7 (bg)	0	2	35	No	12	91.67	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-11	0.003063	18	35	No	12	91.67	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-12	-0.00...	-29	-35	No	12	83.33	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-2A	0	-2	-35	No	12	91.67	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-13 (bg)	0	-14	-31	No	11	63.64	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-14	-0.00...	-10	-35	No	12	83.33	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-15 (bg)	0	0	35	No	12	91.67	n/a	n/a	0.02	NP
Copper Total (mg/L)	**MW-16**	**0.004266**	**48**	**35**	**Yes**	**12**	**91.67**	**n/a**	**n/a**	**0.02**	**NP**
Copper Total (mg/L)	MW-16L	0	-2	-35	No	12	83.33	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-18	0.001809	18	35	No	12	91.67	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-19	0	9	35	No	12	66.67	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Copper Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-1A	0.002082	4	35	No	12	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-1B (bg)	0.00318	3	35	No	12	50	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-3L	-0.00...	-1	-35	No	12	16.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-4	0.1101	14	35	No	12	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-4L	0.6928	29	35	No	12	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-5	0.04425	11	35	No	12	41.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-7 (bg)	-0.03606	-24	-35	No	12	41.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-11	0.4035	20	35	No	12	16.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-12	-0.03159	-8	-35	No	12	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-2A	0	0	35	No	12	41.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-13 (bg)	-0.04598	-16	-31	No	11	36.36	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-14	0.04747	14	35	No	12	16.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-15 (bg)	0.008047	9	35	No	12	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-16	-0.00...	-1	-35	No	12	33.33	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-16L	-0.00...	-4	-35	No	12	16.67	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Fluoride (mg/L)	MW-18	0.5115	22	35	No	12	16.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-19	-0.03738	-17	-35	No	12	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-20	-0.00...	0	10	No	5	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-21	0.01265	0	10	No	5	20	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-1A	-0.00...	-11	-35	No	12	58.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-1B (bg)	-0.00...	-17	-35	No	12	58.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-3L	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-4	-0.00...	-26	-35	No	12	91.67	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-4L	-0.00...	-23	-35	No	12	100	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-5	0	-1	-35	No	12	75	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-7 (bg)	0	-3	-35	No	12	58.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-11	-0.00...	-10	-35	No	12	100	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-12	-0.00...	-16	-35	No	12	41.67	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-2A	0	5	35	No	12	100	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-13 (bg)	-0.00...	-22	-31	No	11	36.36	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-14	0	-2	-35	No	12	83.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-15 (bg)	0.000...	13	35	No	12	58.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-16	0.000...	13	35	No	12	58.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-16L	0	-4	-35	No	12	83.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-18	0	-1	-35	No	12	83.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-19	0.000...	21	35	No	12	58.33	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-20	-0.00...	0	10	No	5	20	n/a	n/a	0.02	NP
Lead Total (mg/L)	MW-21	0	-1	-10	No	5	80	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-1A	0.000...	8	35	No	12	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-1B (bg)	0	6	35	No	12	75	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-3L	0.000...	6	35	No	12	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	**MW-4**	**-0.08372**	**-36**	**-35**	**Yes**	**12**	**8.333**	**n/a**	**n/a**	**0.02**	**NP**
Lithium Total (mg/L)	MW-4L	-0.02293	-13	-35	No	12	16.67	n/a	n/a	0.02	NP
Lithium Total (mg/L)	**MW-5**	**0.01479**	**45**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Lithium Total (mg/L)	MW-7 (bg)	0.002309	31	35	No	12	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-11	-0.01257	-9	-35	No	12	25	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-12	-0.00...	-12	-35	No	12	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-2A	0.000...	35	35	No	12	16.67	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-13 (bg)	-0.00137	-13	-31	No	11	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-14	0	1	35	No	12	25	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-15 (bg)	0.001273	15	35	No	12	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	**MW-16**	**0.008078**	**58**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Lithium Total (mg/L)	MW-16L	-0.00...	-15	-35	No	12	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	**MW-18**	**0.05055**	**38**	**35**	**Yes**	**12**	**8.333**	**n/a**	**n/a**	**0.02**	**NP**
Lithium Total (mg/L)	MW-19	0.000...	20	35	No	12	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-20	-0.00...	-4	-10	No	5	0	n/a	n/a	0.02	NP
Lithium Total (mg/L)	MW-21	-0.00...	-2	-10	No	5	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-1A	-0.2705	-5	-35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-1B (bg)	-6.883	-34	-35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-3L	0.4671	11	35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-4	0	3	35	No	12	83.33	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-4L	-0.1881	-20	-35	No	12	58.33	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-5	3.722	7	35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-7 (bg)	-3.109	-16	-35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-11	-0.8256	-16	-35	No	12	41.67	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Magnesium (mg/L)	MW-12	-5.741	-26	-35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-2A	2.372	20	35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-13 (bg)	-2.219	-13	-31	No	11	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-14	-1.106	-7	-35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	**MW-15 (bg)**	**2.185**	**36**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium (mg/L)	**MW-16**	**4.451**	**56**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium (mg/L)	MW-16L	-0.4606	-20	-35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-18	-0.1473	-11	-35	No	12	41.67	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-19	-0.6657	-17	-35	No	12	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-20	-2.518	-5	-10	No	5	0	n/a	n/a	0.02	NP
Magnesium (mg/L)	MW-21	0.2959	0	10	No	5	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-1A	0.001731	23	35	No	12	16.67	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-1B (bg)	-0.02722	-22	-35	No	12	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-3L	0.01236	34	35	No	12	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-4	-0.00...	-3	-35	No	12	41.67	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-4L	-0.00...	-9	-35	No	12	83.33	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-5	-0.03899	-12	-35	No	12	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-7 (bg)	-0.01302	-14	-35	No	12	8.333	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-11	0.002111	17	35	No	12	91.67	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-12	0.1069	18	35	No	12	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-2A	0.01195	17	35	No	12	16.67	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-13 (bg)	0.01571	1	31	No	11	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-14	-0.00...	-5	-35	No	12	16.67	n/a	n/a	0.02	NP
Manganese Total (mg/L)	**MW-15 (bg)**	**0.02811**	**43**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (mg/L)	MW-16	0.000...	2	35	No	12	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-16L	-0.00...	0	35	No	12	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-18	0.000...	14	35	No	12	66.67	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-19	0.01634	22	35	No	12	0	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-20	-0.00...	-1	-10	No	5	40	n/a	n/a	0.02	NP
Manganese Total (mg/L)	MW-21	-0.00...	0	10	No	5	0	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-1A	0	3	35	No	12	91.67	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-1B (bg)	0	4	35	No	12	75	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-3L	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-4	-0.01466	-28	-35	No	12	8.333	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-4L	0.012	15	35	No	12	8.333	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-5	0	1	35	No	12	75	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-7 (bg)	0.000...	20	35	No	12	75	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-11	-0.01324	-29	-35	No	12	8.333	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-12	-0.00...	-19	-35	No	12	91.67	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-2A	0	3	35	No	12	91.67	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-13 (bg)	0.000...	22	31	No	11	18.18	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-14	0.000...	2	35	No	12	16.67	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-15 (bg)	0	2	35	No	12	75	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-16	0.000...	17	35	No	12	100	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-16L	0	1	35	No	12	91.67	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-18	0.009135	22	35	No	12	8.333	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-19	0	3	35	No	12	100	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Molybdenum Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-1A	0	-18	-35	No	12	75	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Nickel Total (mg/L)	MW-1B (bg)	0	-16	-35	No	12	66.67	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-3L	0	7	35	No	12	91.67	n/a	n/a	0.02	NP
Nickel Total (mg/L)	**MW-4**	**-0.00...**	**-36**	**-35**	**Yes**	**12**	**41.67**	**n/a**	**n/a**	**0.02**	**NP**
Nickel Total (mg/L)	MW-4L	-0.00...	-15	-35	No	12	33.33	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-5	-0.00...	-11	-35	No	12	25	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-7 (bg)	0	8	35	No	12	83.33	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-11	-0.00...	-11	-35	No	12	41.67	n/a	n/a	0.02	NP
Nickel Total (mg/L)	**MW-12**	**-0.00...**	**-42**	**-35**	**Yes**	**12**	**8.333**	**n/a**	**n/a**	**0.02**	**NP**
Nickel Total (mg/L)	MW-2A	0.000...	9	35	No	12	33.33	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-13 (bg)	-0.00...	-8	-31	No	11	18.18	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-14	-0.00...	-5	-35	No	12	41.67	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-15 (bg)	0	7	35	No	12	91.67	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-16	0.003526	33	35	No	12	75	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-16L	0	0	35	No	12	91.67	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-18	0.00108	13	35	No	12	41.67	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-19	0	-4	-35	No	12	33.33	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-20	0	0	10	No	5	80	n/a	n/a	0.02	NP
Nickel Total (mg/L)	MW-21	0	0	10	No	5	100	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-1A	-0.2428	-31	-35	No	12	25	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-1B (bg)	0	13	35	No	12	83.33	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-3L	0	14	35	No	12	83.33	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-4	0	5	35	No	12	100	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-4L	0.02814	22	35	No	12	75	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-5	0	22	35	No	12	91.67	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-7 (bg)	0.568	31	35	No	12	25	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-11	0	16	35	No	12	100	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-12	0	-2	-35	No	12	50	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-2A	-0.07496	-14	-35	No	12	8.333	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-13 (bg)	0	0	31	No	11	36.36	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-14	0.02762	18	35	No	12	58.33	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-15 (bg)	0	17	35	No	12	66.67	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-16	0	19	35	No	12	100	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-16L	0	22	35	No	12	91.67	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-18	0.02689	24	35	No	12	75	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-19	0	10	35	No	12	75	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-20	0	4	10	No	5	100	n/a	n/a	0.02	NP
Nitrate (mg/L)	MW-21	0.02466	3	10	No	5	80	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-1A	0.02246	18	20	No	8	87.5	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-1B (bg)	0.000...	16	20	No	8	87.5	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-3L	0.02706	17	20	No	8	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-4	0.02961	11	17	No	7	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-4L	0.02444	7	17	No	7	85.71	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-5	0.02961	14	17	No	7	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-7 (bg)	0	6	20	No	8	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-11	0.02043	4	17	No	7	85.71	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-12	0	5	17	No	7	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-2A	0	6	20	No	8	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-13 (bg)	0.02965	14	17	No	7	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-14	0.02961	14	17	No	7	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-15 (bg)	0.02706	17	20	No	8	100	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Nitrite (mg/L)	MW-16	0.02702	17	20	No	8	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-16L	0.02702	17	20	No	8	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-18	0.0346	15	20	No	8	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-19	0.02706	17	20	No	8	100	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-20	0.03991	5	10	No	5	80	n/a	n/a	0.02	NP
Nitrite (mg/L)	MW-21	0.03844	5	10	No	5	80	n/a	n/a	0.02	NP
pH (n/a)	MW-1A	-0.1043	-27	-31	No	11	0	n/a	n/a	0.02	NP
pH (n/a)	MW-1B (bg)	-0.1346	-33	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-3L	-0.4894	-9	-13	No	6	0	n/a	n/a	0.02	NP
pH (n/a)	MW-4	-0.1673	-17	-31	No	11	0	n/a	n/a	0.02	NP
pH (n/a)	MW-4L	-0.01864	-8	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-5	-0.115	-15	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-7 (bg)	0.1294	13	35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-11	0.06956	16	35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-12	-0.1088	-20	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-2A	-0.08903	-25	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-13 (bg)	-0.2275	-22	-31	No	11	0	n/a	n/a	0.02	NP
pH (n/a)	MW-14	-0.00...	-2	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-15 (bg)	-0.07384	-25	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-16	-0.1311	-24	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-16L	-0.09238	-25	-35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-18	0.03341	9	35	No	12	0	n/a	n/a	0.02	NP
pH (n/a)	MW-19	-0.1296	-20	-31	No	11	0	n/a	n/a	0.02	NP
pH (n/a)	MW-20	-0.103	-6	-10	No	5	0	n/a	n/a	0.02	NP
pH (n/a)	MW-21	-0.2249	-4	-10	No	5	0	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-1A	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-1B (bg)	0	-18	-35	No	12	75	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-3L	0	5	35	No	12	100	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-4	-0.02836	-27	-35	No	12	0	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-4L	0.01532	33	35	No	12	8.333	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-5	0	4	35	No	12	83.33	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-7 (bg)	0	6	35	No	12	75	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-11	0.0099	30	35	No	12	0	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-12	0	-14	-35	No	12	66.67	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-2A	0	3	31	No	11	81.82	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-13 (bg)	-0.01621	-18	-31	No	11	54.55	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-14	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-15 (bg)	0	10	35	No	12	83.33	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-16	0	0	35	No	12	66.67	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-16L	0	5	35	No	12	100	n/a	n/a	0.02	NP
Phosphorus (mg/L)	**MW-18**	**0.01362**	**44**	**35**	**Yes**	**12**	**33.33**	**n/a**	**n/a**	**0.02**	**NP**
Phosphorus (mg/L)	MW-19	0.01276	25	35	No	12	58.33	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-20	0	2	10	No	5	60	n/a	n/a	0.02	NP
Phosphorus (mg/L)	MW-21	0	4	10	No	5	80	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-1A	0.07218	9	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-1B (bg)	0.2947	33	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-3L	0.164	28	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	**MW-4**	**-386.9**	**-44**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Potassium (mg/L)	MW-4L	-3.203	-2	-35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	**MW-5**	**44.73**	**44**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Potassium (mg/L)	MW-7 (bg)	0.812	35	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-11	-163.7	-24	-35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-12	0.104	6	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-2A	0.174	32	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-13 (bg)	-0.1015	-11	-31	No	11	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-14	30.52	7	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-15 (bg)	0.1258	20	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	**MW-16**	**30.77**	**62**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Potassium (mg/L)	MW-16L	-0.119	-26	-35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-18	219.8	24	35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-19	-0.04614	-2	-35	No	12	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-20	-0.6682	-2	-10	No	5	0	n/a	n/a	0.02	NP
Potassium (mg/L)	MW-21	0.06166	3	10	No	5	0	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-1A	0	6	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-1B (bg)	0	8	35	No	12	83.33	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-3L	0	6	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-4	-0.00...	-5	-35	No	12	50	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-4L	0	5	35	No	12	75	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-5	0.000...	12	35	No	12	91.67	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-7 (bg)	0	6	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-11	0.003616	23	35	No	12	66.67	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-12	0	-12	-35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-2A	0	6	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-13 (bg)	0	2	31	No	11	90.91	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-14	0.000...	5	35	No	12	91.67	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-15 (bg)	0	6	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-16	0.003303	29	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-16L	0	6	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-18	0.003627	23	35	No	12	75	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-19	0	3	35	No	12	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Selenium Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-1A	0	6	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-1B (bg)	0	6	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-3L	0	9	35	No	12	91.67	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-4	0	-4	-35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-4L	0	4	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-5	0	9	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-7 (bg)	0	6	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-11	0.001254	20	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-12	0	-1	-35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-2A	0	6	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-13 (bg)	0	3	31	No	11	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-14	0	3	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-15 (bg)	0	6	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-16	0.000...	20	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-16L	0	6	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-18	0.001401	20	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-19	0	3	35	No	12	100	n/a	n/a	0.02	NP
Silver Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP

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Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Silver Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-1A	-0.2125	-11	-35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	**MW-1B (bg)**	**-2.404**	**-40**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium (mg/L)	MW-3L	-0.01676	-1	-35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	**MW-4**	**-28.68**	**-41**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium (mg/L)	MW-4L	-11.67	-12	-35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	**MW-5**	**9.042**	**40**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium (mg/L)	MW-7 (bg)	0.7024	25	35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-11	-17.63	-22	-35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-12	0.641	13	35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	**MW-2A**	**1.655**	**42**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium (mg/L)	MW-13 (bg)	12.12	17	31	No	11	0	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-14	-6.458	-7	-35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-15 (bg)	0.05367	2	35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	**MW-16**	**7.668**	**61**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium (mg/L)	**MW-16L**	**-0.6256**	**-39**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium (mg/L)	MW-18	-0.9284	-5	-35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-19	-2.178	-22	-35	No	12	0	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-20	-0.4077	-2	-10	No	5	0	n/a	n/a	0.02	NP
Sodium (mg/L)	MW-21	0.4634	2	10	No	5	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-1A	12.22	9	31	No	11	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-1B (bg)	-30.24	-16	-35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-3L	41.06	3	13	No	6	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-4	-646.3	-26	-35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-4L	167.8	10	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-5	319.3	26	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-7 (bg)	4.785	6	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-11	-254.8	-10	-35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-12	5.641	4	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-2A	39.43	12	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-13 (bg)	109.6	19	31	No	11	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-14	182.2	20	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-15 (bg)	46.91	32	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	**MW-16**	**153.6**	**36**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Specific conductivity (umhos/cm)	MW-16L	7.548	8	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-18	560.7	22	35	No	12	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-19	-9.553	-4	-31	No	11	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-20	-407.5	-4	-10	No	5	0	n/a	n/a	0.02	NP
Specific conductivity (umhos/cm)	MW-21	95.26	4	10	No	5	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	**MW-1A**	**-0.8108**	**-38**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	MW-1B (bg)	-7.316	-12	-35	No	12	8.333	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-3L	-1.041	-8	-35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	**MW-4**	**-280.9**	**-47**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	MW-4L	-27.35	-12	-35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-5	-16.92	-12	-35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-7 (bg)	16.67	32	35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	**MW-11**	**-189.6**	**-38**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	MW-12	-11.66	-14	-35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-2A	13.24	28	35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-13 (bg)	1.605	13	31	No	11	0	n/a	n/a	0.02	NP

Trend Test

Continental Cement Data: Import 1 Printed 11/22/2023, 5:01 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Sulfate (mg/L)	MW-14	-66.04	-20	-35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	**MW-15 (bg)**	**14.37**	**44**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	**MW-16**	**70.53**	**58**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	MW-16L	-0.1809	-12	-35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	**MW-18**	**-106.6**	**-46**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	MW-19	-8.091	-26	-35	No	12	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-20	-0.6883	0	10	No	5	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-21	0.07399	1	10	No	5	0	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-1A	0	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-1B (bg)	0	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-3L	0	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-4	-0.00...	-18	-35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-4L	-0.00...	-14	-35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-5	0.000927	21	35	No	12	83.33	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-7 (bg)	0	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-11	-0.00...	-6	-35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-12	0	1	35	No	12	91.67	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-2A	0	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-13 (bg)	0	2	31	No	11	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-14	0	2	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-15 (bg)	0	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-16	0.000...	16	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-16L	0	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-18	0.000...	5	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-19	0	3	35	No	12	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Thallium Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-1A	-1.389	-5	-35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-1B (bg)	-36.28	-28	-35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-3L	-1.035	-4	-35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	**MW-4**	**-960**	**-42**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids (mg/L)	MW-4L	136.5	12	35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-5	141.7	27	35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-7 (bg)	-17.41	-28	-35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-11	-583.1	-28	-35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-12	-25.28	-20	-35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-2A	27.32	27	35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-13 (bg)	67.48	23	31	No	11	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-14	22.54	8	35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-15 (bg)	18.23	22	35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	**MW-16**	**121**	**62**	**35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids (mg/L)	MW-16L	-4.077	-5	-35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-18	60.44	10	35	No	12	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	**MW-19**	**-30**	**-36**	**-35**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids (mg/L)	MW-20	-22.17	-4	-10	No	5	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-21	-4.686	-2	-10	No	5	0	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-1A	0	5	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-1B (bg)	0	-2	-35	No	12	83.33	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-3L	0	7	35	No	12	100	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-4	0	-2	-35	No	12	83.33	n/a	n/a	0.02	NP

Trend Test

Continental Cement Data: Import 1 Printed 11/22/2023, 5:01 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Vanadium Total (mg/L)	MW-4L	0	1	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-5	0	10	35	No	12	100	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-7 (bg)	0	7	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-11	0.002267	21	35	No	12	66.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-12	-0.00...	-13	-35	No	12	75	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-2A	0	7	35	No	12	100	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-13 (bg)	0	-12	-31	No	11	63.64	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-14	0.000...	6	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-15 (bg)	0	7	35	No	12	100	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-16	0.002601	28	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-16L	0	2	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-18	0.001813	24	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-19	0	3	35	No	12	91.67	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Vanadium Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-1A	0	0	35	No	12	75	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-1B (bg)	0	-2	-35	No	12	83.33	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-3L	0	2	35	No	12	83.33	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-4	0	-3	-35	No	12	100	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-4L	0	-1	-35	No	12	91.67	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-5	0	-1	-35	No	12	75	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-7 (bg)	0	2	35	No	12	83.33	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-11	0.01062	13	35	No	12	91.67	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-12	-0.00...	-19	-35	No	12	75	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-2A	0	-1	-35	No	12	91.67	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-13 (bg)	0	-14	-31	No	11	63.64	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-14	0	5	35	No	12	100	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-15 (bg)	0	6	35	No	12	100	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-16	0.01123	20	35	No	12	83.33	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-16L	0	6	35	No	12	100	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-18	0.01088	22	35	No	12	100	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-19	0	3	35	No	12	91.67	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-20	0	-4	-10	No	5	100	n/a	n/a	0.02	NP
Zinc Total (mg/L)	MW-21	0	-4	-10	No	5	100	n/a	n/a	0.02	NP

APPENDIX D

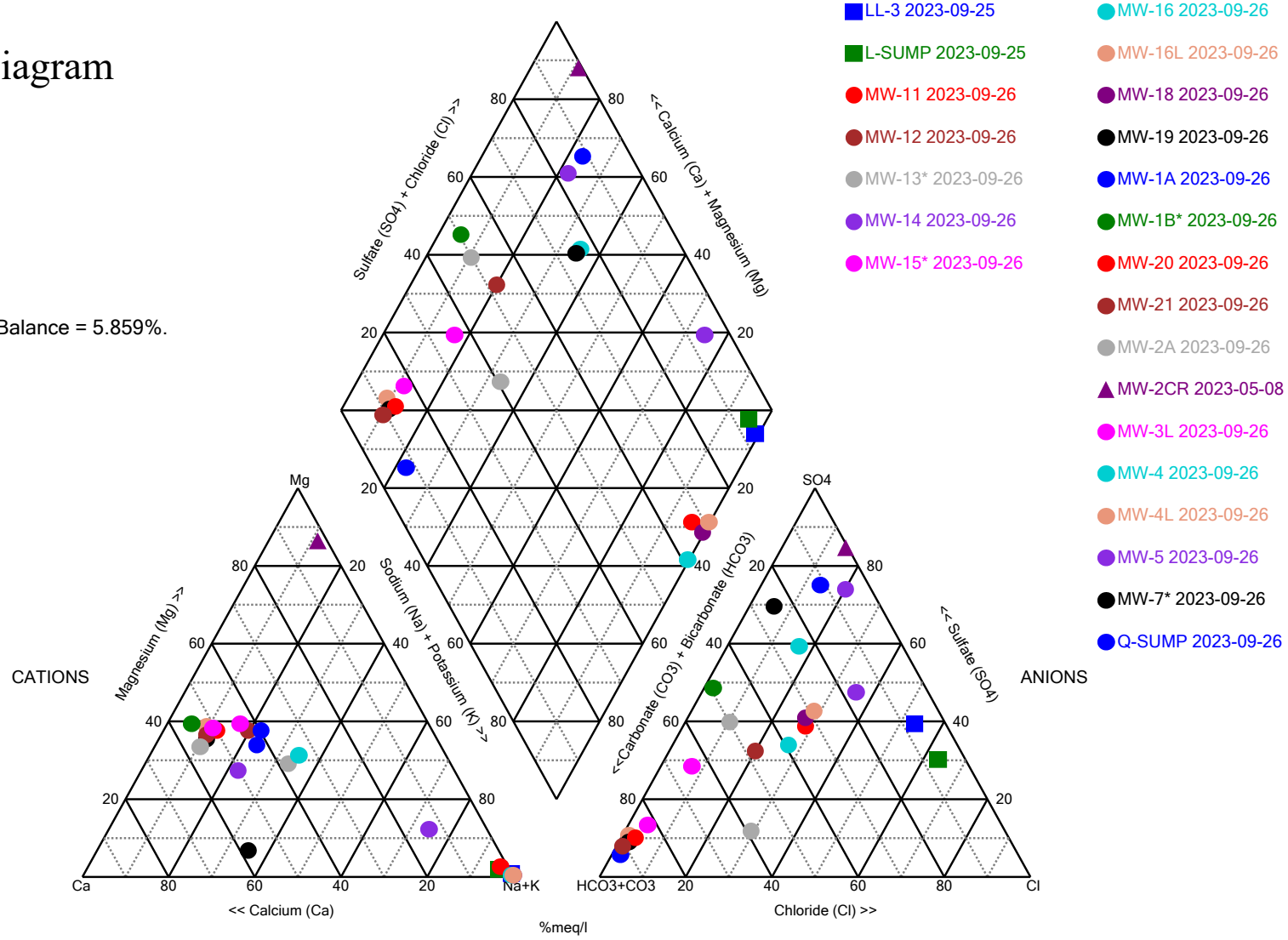
CONTINENTAL ANNUAL WATER QUALITY REPORT

Geochemical Evaluation

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Piper Diagram

Cation-Anion Balance = 5.859%.



Analysis Run 11/27/2023 12:30 PM View: Geochemical Analysis

Continental Cement Data: Import 1

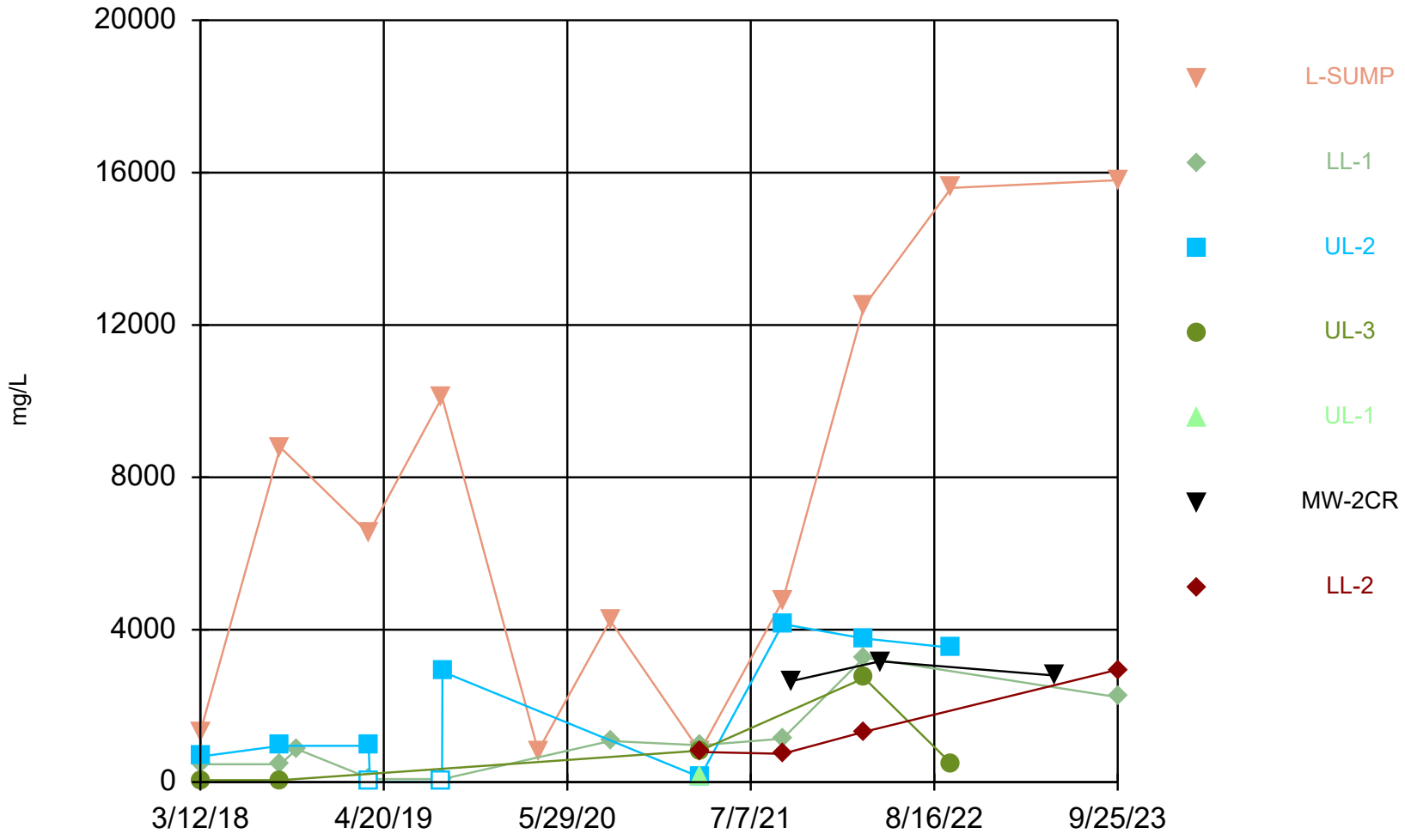
APPENDIX E

CONTINENTAL ANNUAL WATER QUALITY REPORT

Time vs. Concentrations Plots

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

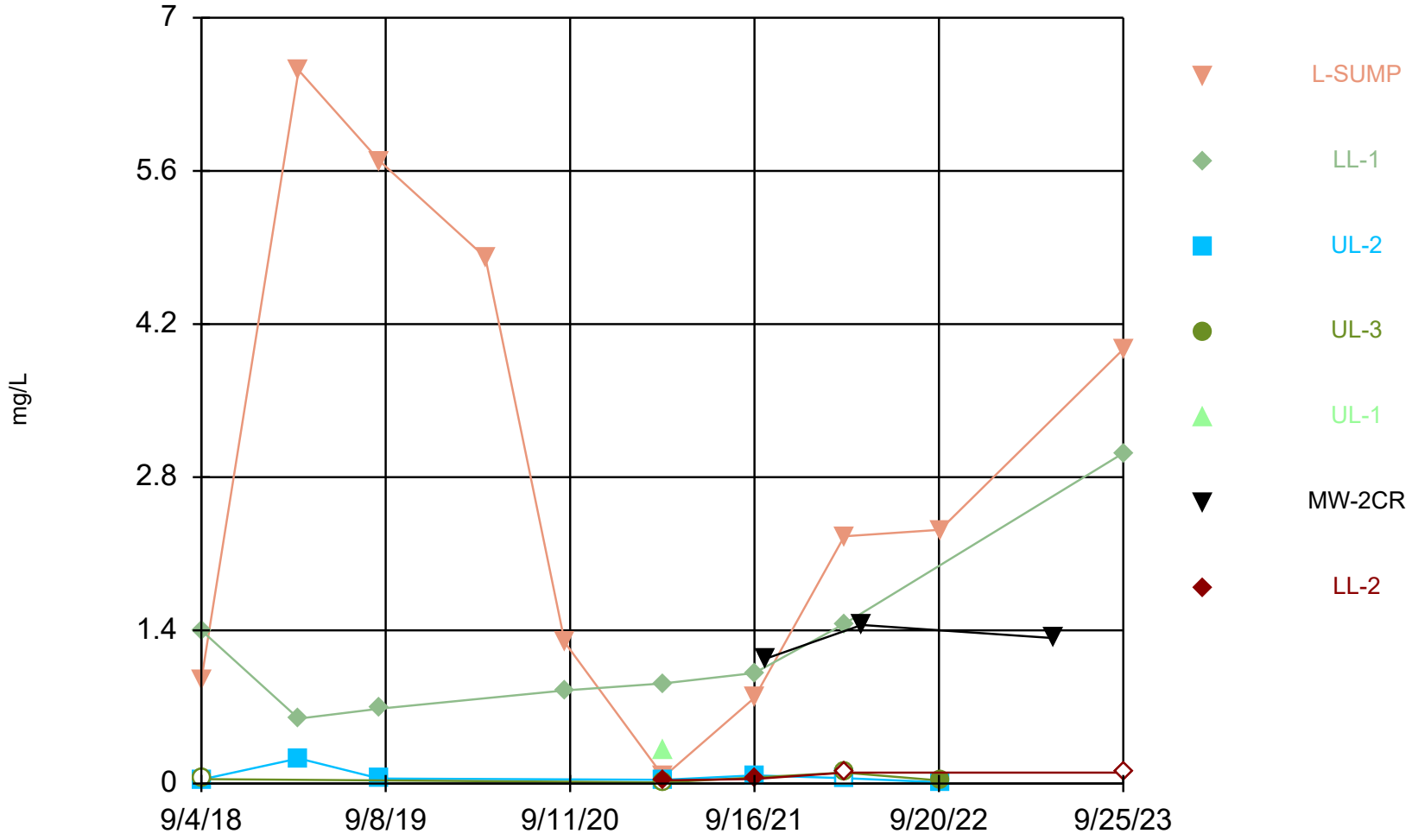


Constituent: Chloride Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

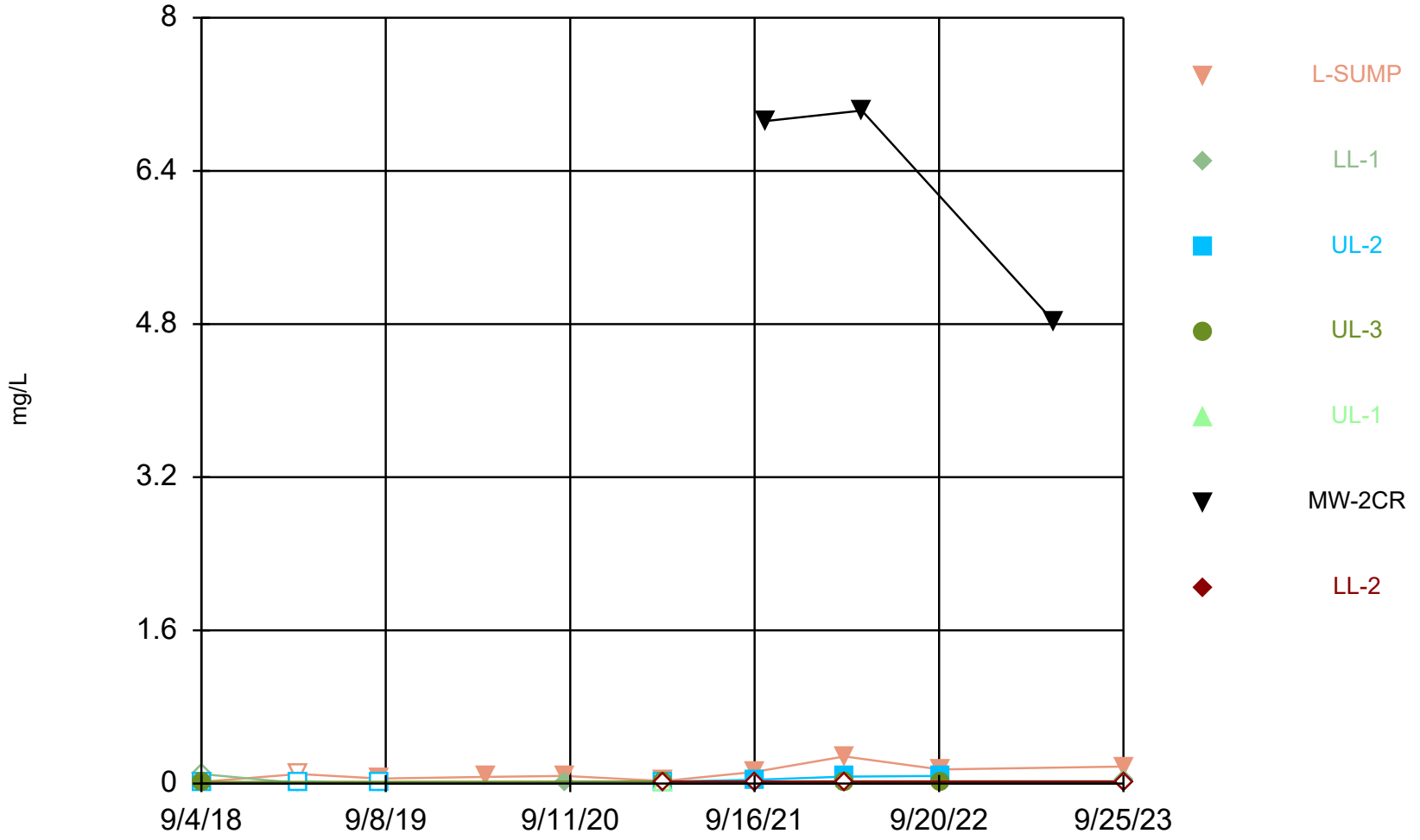


Constituent: Lithium Total Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

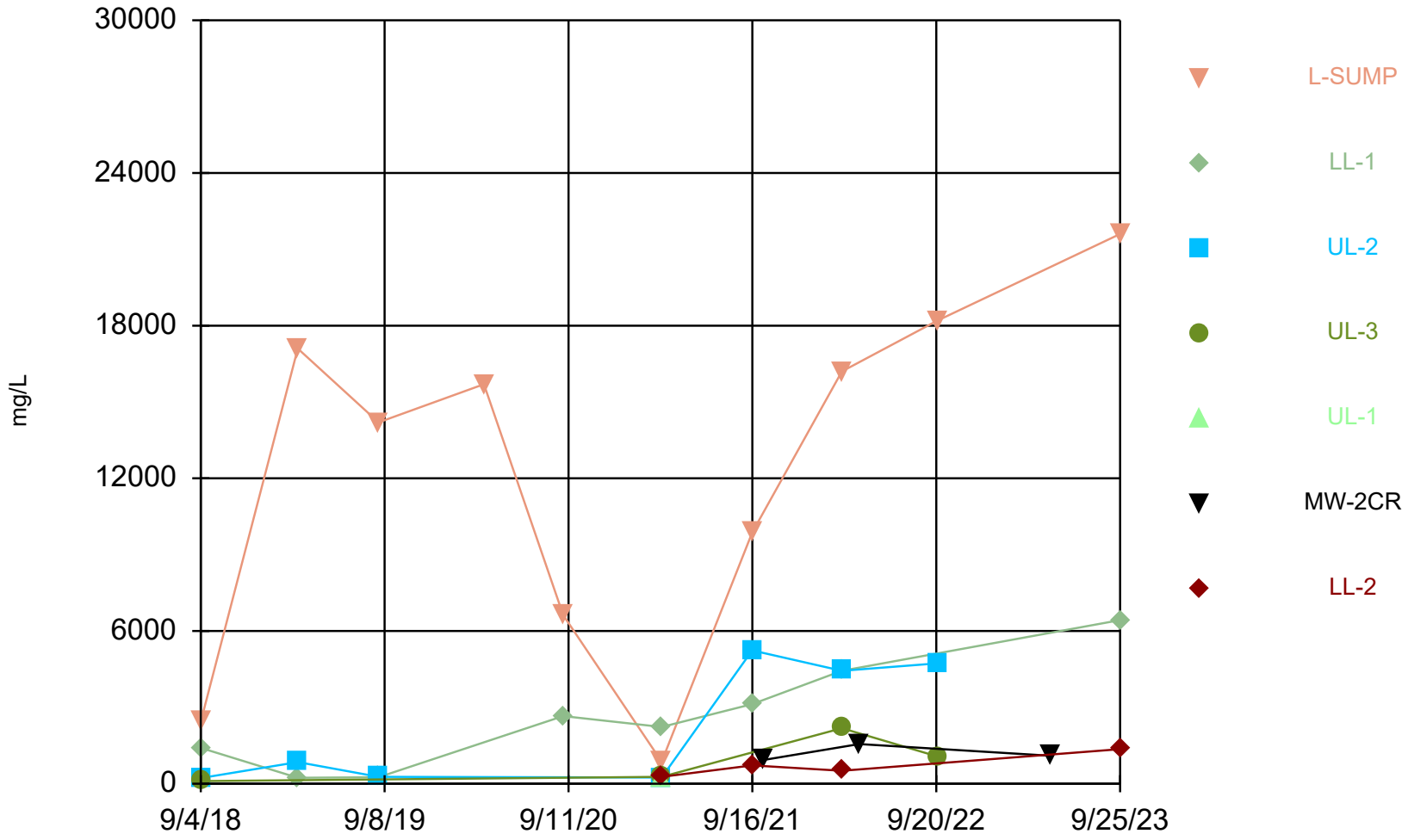


Constituent: Molybdenum Total Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Time Series

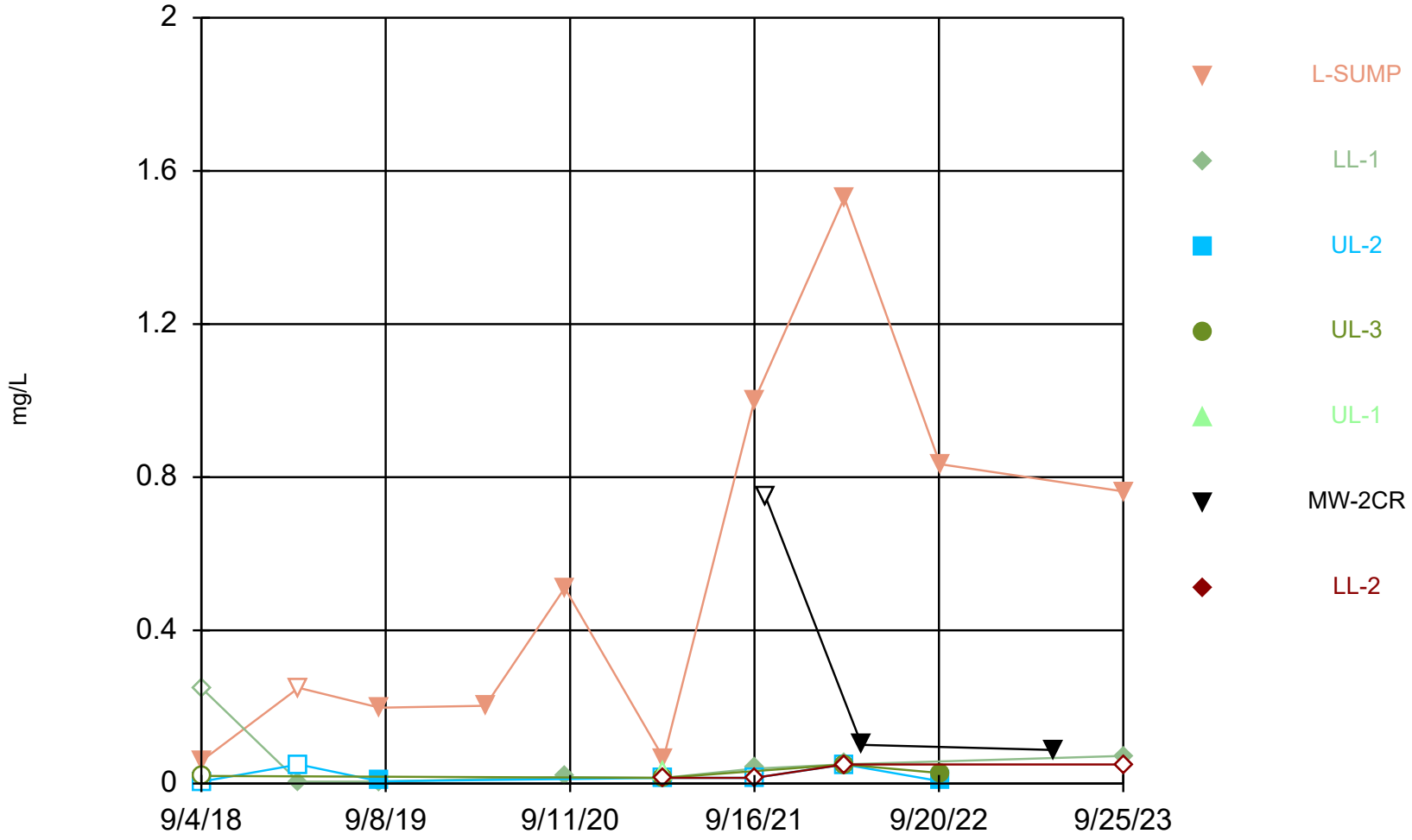


Constituent: Potassium Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

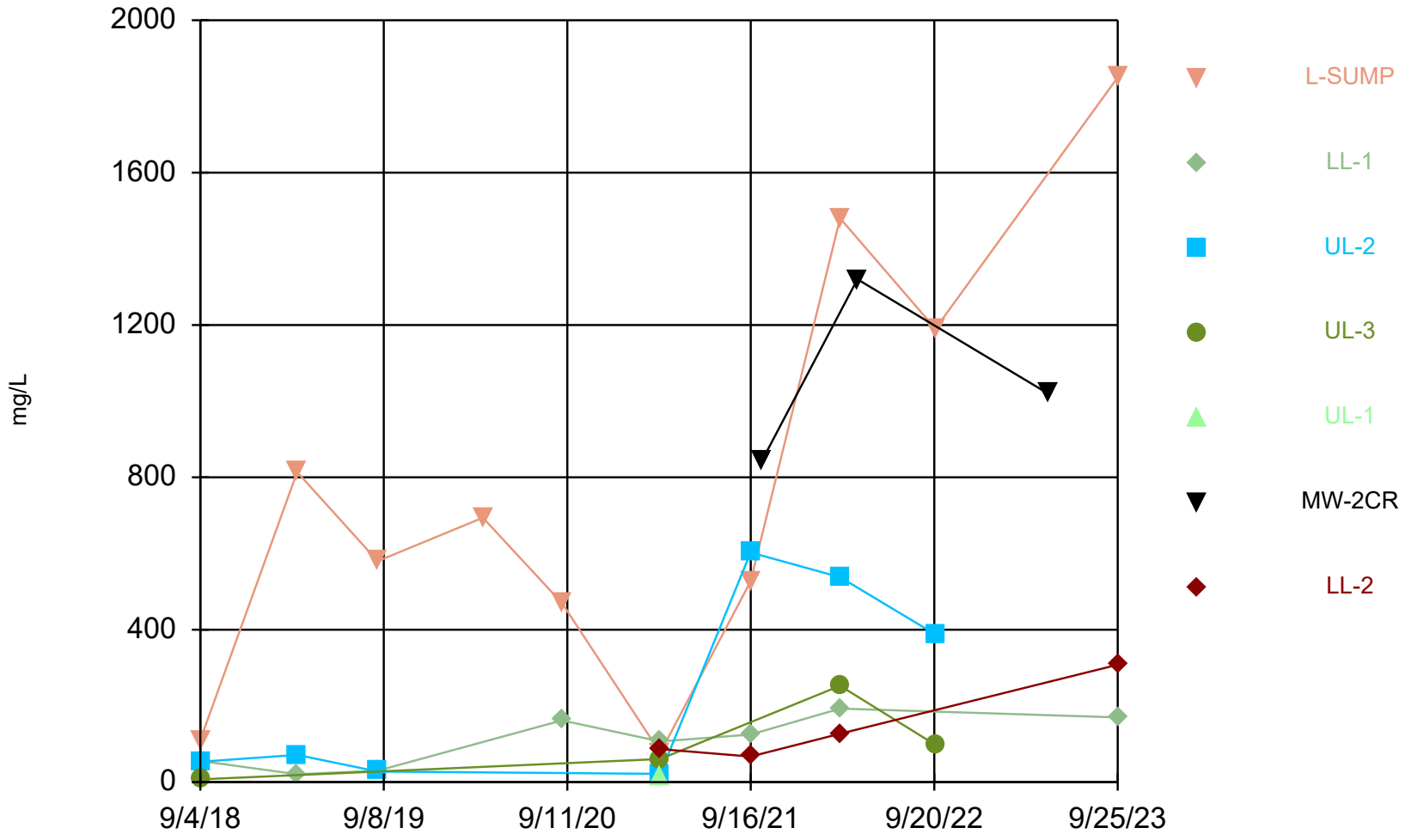


Constituent: Selenium Total Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Time Series

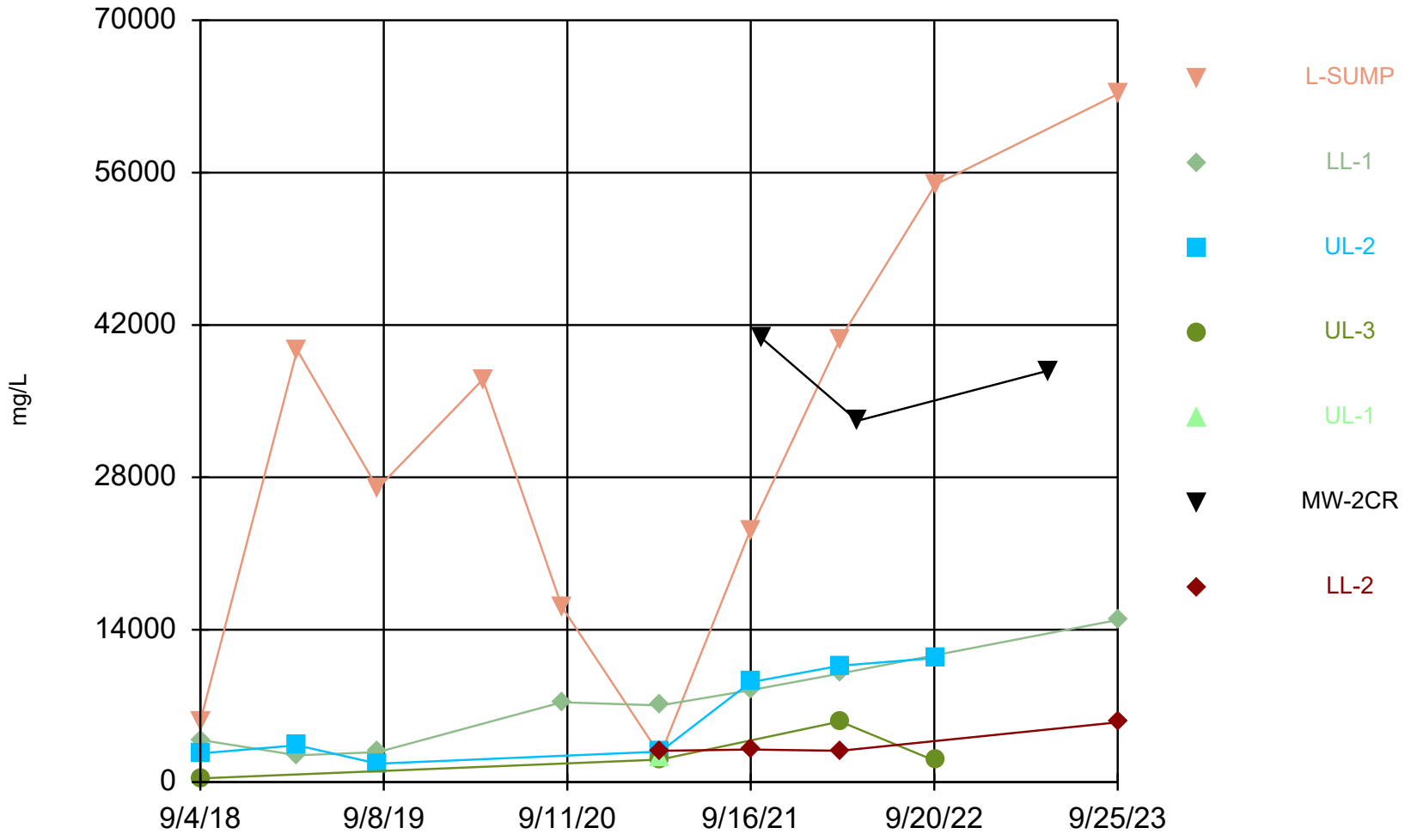


Constituent: Sodium Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

APPENDIX F

CONTINENTAL ANNUAL WATER QUALITY REPORT

Leachate Control System Performance Evaluation Report – 2023



LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT

Continental Cement CKD Monofill Landfill
Buffalo, Iowa
IDNR Landfill Permit Number 82-SDP-16-97P

Prepared for:
Continental Cement
301 East Front Street
Buffalo, Iowa 52728

Prepared by:
Blackstone Environmental, Inc.
1465 41st Street, Suite 13
Moline, Illinois 61265

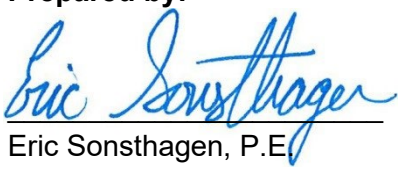
BLACKSTONE ENVIRONMENTAL

November 30, 2023

LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT
Continental Cement CKD Monofill Landfill
Buffalo, Iowa
IDNR Landfill Permit Number 82-SDP-16-97P

Prepared for:
Continental Cement
301 East Front Street
Buffalo, Iowa 52728

Prepared by:

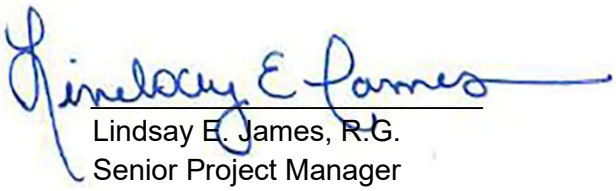


Eric Sonsthagen, P.E.
Senior Project Engineer

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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.

BLACKSTONE ENVIRONMENTAL

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ACRONYMS/ABBREVIATIONS:

AWQR	**Annual Water Quality Report**
Blackstone	**Blackstone Environmental, Inc.**
Continental	**Continental Cement Company, LLC.**
CKD	**Cement Kiln Dust**
CQA	**Construction Quality Assurance**
IAC	**Iowa Administrative Code**
IDNR	**Iowa Department of Natural Resources**
LCSPER	**Leachate Control System Performance Evaluation Report**
msl	**mean sea level**
PVC	**polyvinyl chloride**
SCADA	**Supervisory Control and Data Acquisition**
Site	**CKD Monofill**

1.0 INTRODUCTION

This LCSPER documents the requirements of IAC 567 Chapter 115.26(1)g and includes a description of the leachate system monitoring program, system maintenance, and provides pertinent recommendations, if necessary.

This document was prepared to meet the requirements of the Continental Cement Davenport Plant Operating CKD Landfill Permit Number 82-SDP-16-97P and the applicable regulatory requirements of IAC Chapter 115 and builds upon the previously completed LCSPER dated November 20, 2022. A topographic map of the Site is presented on Figure 1 and a Site Plan is included as Figure 2.

2.0 EXISTING LEACHATE CONTROL SYSTEM COMPONENTS

2.1 Collection Lines

According to available drawings, the leachate collection and monitoring system consists of an upper drainage layer that includes a 4-foot-thick clay layer below the drainage layer. The upper drainage layer has two 2-inch diameter slotted PVC collection lines installed within a 1-foot-thick sand drainage layer. Three upper lysimeters (UL-1, UL-2, and UL-3) were installed to monitor the leachate thickness in the upper drainage layer and are to represent leachate head on liner conditions. The UL-2 and UL-3 monitoring locations were removed and replaced by UL-2R and UL-3R in October 2022. The current leachate control system and groundwater monitoring network are shown on Figure 3.

There are two perforated 2-inch PVC collection pipes installed within the upper drainage layer of the cells. Each collection pipe is connect to a 6-inch solid PVC header pipe which conveys liquids from the active Phase II Cell to the leachate collection sump. Both leachate collection lines have cleanout risers installed at the intersections with the header pipe that are located on the west side of the active landfill. Liquids are conveyed from the closed Phase I Cell to the leachate collection sump through a separate pipe installed within Phase I.

2.2 Leachate Collection Sump

A 10-foot diameter, 12-foot deep, leachate collection sump is located along the southwest portion of the landfill. The 6-inch leachate header pipe drains to the collection sump and conveys liquids from the active Phase II Cell. A separate leachate drain pipe conveys liquids from the closed Phase I Cell. Past updates to the leachate system include installation of solar powered equipment and a SCADA system to allow for the operators to monitor the leachate sump pump status remotely. The solar powered pumping and sprinkler system pumps leachate from the collection

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sump up to the top of the active waste mass where sprinkler heads distribute the leachate to evaporate the liquid off the Site and for dust control. Based on the volume of leachate being pumped through the sprinkler system, this system is acting like an evaporation system as intended.

The solar powered leachate system equipment includes solar array panels, a leachate pump with level-sensing transducer, leachate piping to the active cell, leachate sprinklers, and mounting equipment. The SCADA system and monitoring station at the leachate sump includes a leachate sump level, high level alarm, and low-level shutoff for the leachate sump pump.

2.3 Leachate Monitoring Points

Leachate depth measurements are collected monthly at six different locations including the three upper drainage layer lysimeters (UL-1, UL-2R, and UL-3R), groundwater monitoring wells MW-9 and MW-10, and the leachate collection sump (L-Sump). Liquid elevations typically vary across the monitoring points from month to month and have been higher than the allowed 12-inch maximum depth in select monitoring points during 2023. For those events in UL-1, UL-2, or UL-3, the measurement process included a verification measurement after the initial exceedance. The measurement frequency at these locations was increased to weekly in accordance with permit requirements, when necessary. Some of the measuring points are dry and record no depth to liquid measurements. The leachate measurement data is provided in the attached Table 4.

3.0 LEACHATE CONTROL SYSTEM MAINTENANCE

The leachate collection system was jetted on April 28, 2023, by Toppert Jetting Service (Toppert) of East Moline, Illinois by inserting the jetting line into the pipe from the leachate sump and advancing it towards the UL-2 and UL-3 tie-ins. The leachate line cleanout process included removing the cap at the cleanouts to UL-2 and UL-3 and mobilizing the jetting equipment into place. The leachate sump pump was turned off and removed from the sump prior to jetting to avoid potential damage to the pump. Each collection line was then jetted by advancing the jetting hose through each line until advancement of the hose was restricted. The lines were jetted and flushed until the discharge from the pipes appeared clear. The jetting hose was removed, the caps were placed back onto the cleanout lines, and the sump pump was lowered back into the sump and turned back on once the jetting process was complete.

The leachate cleanout line to UL-2 and the sump was jetted and cleaned on November 7, 2023, by Toppert. The leachate collection line cleaning was conducted at the cleanout location for UL-2 and the leachate sump to the UL-2 cleanout. The leachate sump pump was turned off and removed from the sump prior to jetting to avoid potential damage to the pump. The collection line was then jetted by advancing the jetting hose from the sump until the UL-2 cleanout was reached.

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The UL-2 collection line was jetted from the UL-2 cleanout until advancement of the hose was restricted. The lines were jetted and flushed until the discharge from the pipes appeared clear. The jetting hose was removed, the caps were placed back onto the cleanout lines, and the sump pump was lowered back into the sump and turned back on once the jetting process was complete.

As mentioned above, the existing UL-2 and UL-3 monitoring points were removed and replaced on September 27 and 28, 2022. A UL Replacement CQA Certification Report, dated October 24, 2022, which documents the observations and review performed by Blackstone during replacement activities, was prepared and submitted to IDNR during the previous reporting period.

Maintenance on the solar pumping system is completed as necessary to keep the system running and operational. During 2023 maintenance on the system was performed in February, March, and May. In February the battery to the solar pumping system was replaced. A new pump was installed in March to replace the previous pump. Additionally, the pump system controller was replaced in May. No other maintenance to the leachate control system was performed, or required, during 2023.

4.0 LEACHATE CONTROL SYSTEM PERFORMANCE

Leachate elevations for the leachate control system monitoring points for 2023 have been included in the attached Table 4. According to IAC 115.26(11)”a”(1), the leachate collection system shall maintain less than 12-inches of leachate thickness over the liner.

Table 1 below details the average 2023 leachate elevation and thickness for each of the five monitoring points. The L-Sump monitoring point data is not included in Table 1 because it is contained within a closed system and not representative of leachate thickness over the liner. Averages were calculated using measurements from December 2022 through September 2023.

Table 1 – Average Leachate Monitoring Data

Leachate Monitoring Point	Average Leachate Elevation (feet msl)*	Average Leachate Thickness (feet)*
MW-9	498.93	1.25
MW-10	497.51	1.63
UL-1	544.45	0.36
UL-2R	536.62	1.74
UL-3R	536.99	1.29

* Average elevation and thickness values are representative of when liquids were measured in the monitoring points and do not take into account “Dry” readings when no liquids were measured.

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Monitoring point MW-9 was observed to be dry in January and February 2023 measurement events. Startin in March 2023, MW-9 has exhibited approximately 1.8 feet of liquids until September 2023 when the reading was 0.29 feet. MW-10 was observed with liquids from January to March 2023 with leachate head between 0.8 feet and 2.42 feet. MW-10 was observed to be dry in each of the remaining 2023 monthly measurement events starting in April. UL-1 was observed to be dry in each of the 2023 monthly measurement events. Leachate head levels were observed in UL-2R during each of the 2023 monthly measurement events. During 2023, levels at UL-2R averaged approximately 1.85 feet with a maximum of 4.12 feet and a minimum of 0.6 feet. UL-3R was observed to contain leachate during each monthly monitoring event, except for May, June, August, and September when it was observed dry. When liquids were present in UL-3R they averaged approximately 1.39 feet with a maximum of 3.0 feet and a minimum of 0.11 feet.

Historical leachate monitoring results have been provided in previous submittals to IDNR, but it appears the 2023 results are in general accordance with previously observed measurements. The new UL-2R and UL-3R monitoring points were installed in direct contact with the top of clay liner and appear to demonstrate an accurate representation of leachate head at these locations as was observed during the monitoring point replacement installation activities. A comparison of the 2022 UL-2/UL-3 readings versus the 2023 UL-2R/UL-3R readings indicate that a reduction of average levels was observed of 49.7 percent and 34.9 percent in UL-2R and UL-3R, respectively.

Leachate collection lines were cleaned through the jetting processes on April 28, 2023, and November 7, 2023. The leachate head measurements at the UL-2R and UL-3R monitoring points showed signs of decline after cleaning with UL-3R being mostly dry. It is recommended that leachate lines continue to be cleaned out on an annual basis until additional leachate level data confirms that the replacement UL monitoring points consistently remain below 1-foot.

5.0 LYSIMETER MONITORING DATA EVALUATION

In accordance with Special Provision 4.m of Permit Number 82-SDP-16-97P, this section provides an evaluation regarding concentrations of constituents found within liquids measured in the LL series lysimeters to determine the potential liquid source within the LL monitoring points.

The lower drainage layer is located below the 4-foot-thick clay liner and consists of a 1-foot-thick sand drainage layer. Three lower lysimeters (LL-1, LL-2, and LL-3) were installed to monitor the liquid thickness in the lower drainage layer.

Table 2 below details the average 2023 liquid elevation and thickness for each of the three lower lysimeter monitoring points. Averages were calculated using measurements from January 2023 through September 2023. Lower lysimeter measurement data is provided in the attached Table 5.

Table 2 – Average Lower Lysimeter Monitoring Data

Monitoring Point	Average Liquid Elevation (feet msl)*	Average Liquid Thickness (feet)*
LL-1	531.89	3.14
LL-2	532.22	2.43
LL-3	532.13	1.67

* Average elevation and thickness values are representative of when liquids were measured in the monitoring points and do not take into account "Dry" readings when no liquids were measured.

Lysimeters were sampled with a disposable bailer without purging prior to collecting a sample when liquids were present during sampling events. Sample volumes were retained for field measurements of pH, specific conductivity, and temperature. Field measurements were collected using an Oakton multiparameter probe calibrated according to the manufacturer's specifications prior to use. Field data sheets entitled "Continental Cement Monitoring Point Sampling Log" are included in Appendix A that correspond to the semi-annual monitoring events. Laboratory analytical reports and chain-of-custody documentation are included within submittal of the AWQR and are not included herein.

The collected lysimeter data has been evaluated to determine whether the lysimeter samples represent vertical leakage through the liner or are indicative of lateral groundwater encroachment. Monitoring data of LL lysimeter samples collected from 2018 through 2023 were reviewed and are summarized on the following Table 3. Constituents not listed for a particular lysimeter location indicate no consistent discernable trend was identified between the evaluated monitoring points, or the constituent concentrations were similar between the samples.

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Table 3 – LL Monitoring Data Summary

LL-1 comparison to L-Sump		
Constituent	**Consistent Trend**	**Rough Order of Magnitude Difference**
Specific Conductivity	LL-1 trending lower	0.5
Barium	LL-1 lower	0.5
Calcium	LL-1 higher	0.5
Lead	LL-1 higher	Unknown (ND in L-Sump)
Thallium	LL-1 higher	Unknown (ND in L-Sump)
Chloride	LL-1 lower	0.5 to 1
Chromium	LL-1 lower	Unknown (ND in LL-1)
Molybdenum	LL-1 lower	Unknown (ND in LL-1)
Nitrate	LL-1 lower	Unknown (ND in LL-1)
Potassium	LL-1 lower	1 to 2
Sodium	LL-1 lower	1 to 2
Sulfate	LL-1 lower	0.5 to 1
Total Dissolved Solids	LL-1 lower	0.5 to 1
Vanadium	LL-1 lower	Unknown (ND in LL-1)
LL-2 comparison to UL-2 & L-Sump		
Constituent	**Consistent Trend**	**Rough Order of Magnitude Difference**
Calcium	LL-2 higher than L-Sump and UL-2	0.5 to 1
Magnesium	LL-2 higher than L-Sump and UL-2	0.5 to 1
Chloride	LL-2 lower than L-Sump	0.5 to 1
Chromium	LL-2 lower than L-Sump	Unknown (ND in LL-2)
Cobalt	LL-2 lower than UL-2	1
Lithium	LL-2 lower than L-Sump	0.5 to 1
Molybdenum	LL-2 lower than L-Sump	Unknown (ND in LL-2)
Potassium	LL-2 lower than L-Sump	1 to 2
Selenium	LL-2 lower than L-Sump	1 to 2
Sodium	LL-2 lower than L-Sump	1
Sulfate	LL-2 lower than L-Sump	1
Total Dissolved Solids	LL-2 lower than L-Sump	1 to 1.5
Vanadium	LL-2 lower than L-Sump	Unknown (ND in LL-2)
LL-3 comparison to UL-3 & L-Sump		
LL-3 has historically been dry during leachate and groundwater monitoring events. A sample was obtained from LL-3 during the September 2022 and September 2023 monitoring events. If additional samples are obtained during 2024 a comparison will be performed in 2024.		

ND = non-detect

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Monitoring points LL-1 and LL-2 have various constituents that are similar in concentration or show no consistent signs of higher or lower concentrations between the evaluation points. In general LL-1 and LL-2 have more constituents that exhibit lower concentrations when compared to the L-Sump monitoring data.

Some constituents such as chloride, potassium, selenium, sodium, and total dissolved solids are present at higher concentrations in the L-Sump, LL-1, and LL-2 monitoring points than nearby groundwater monitoring wells (MW-1A, MW-1B, MW-5 and MW-12). Comparison of these constituent concentrations could be indicative of leachate being present within the LL-1 and LL-2 monitoring points since the highest concentration on-site is generally found in the L-Sump samples followed by the LL-1 and LL-2 monitoring points and the groundwater wells exhibiting the lowest concentrations. However, it should be noted that the elevated concentrations of these constituents are also present in monitoring well MW-2CR, which is located in the stope area associated with Linwood's operations, at concentrations similar to or greater than those in the L-Sump. Time series plots showing this data are included in Appendix B.

LL-3 monitoring data has historically been dry and was not observed to contain liquids during the spring 2023 leachate and groundwater monitoring events. A sample was obtained from LL-3 during the fall 2023 monitoring event and represents two points of data from this location with the inclusion of the fall 2022 monitoring event. Reliable trends cannot be made on two data sets. If additional samples are obtained during 2024, then a trend evaluation of the data will be performed regarding vertical leakage or groundwater encroachment conditions potentially occurring at this location.

Comparing prior monitoring data to the 2023 results shows relatively similar conditions over the past few years and does not appear to represent a significant change in site conditions occurring during 2023.

6.0 RECOMMENDATIONS

Blackstone recommends continued liquid level and pump monitoring, to achieve compliance with IAC 115.26(11)"a"(1). At present, leachate levels are measured monthly, and the leachate pump is operating when the high-level depth within the collection sump is reached, which appears to occur at least once per day on average. If liquid levels are not maintained with the current equipment, then additional pumping removal strategies will be evaluated.

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7.0 LIMITATIONS

This report was prepared in accordance with that level of skill and care ordinarily exercised by other members of Blackstone's profession practicing in the same locality and under similar conditions when the services were provided. No warranties, express or implied, are intended or made.

TABLES

Table 4
Leachate Measurement Data

BLACKSTONE ENVIRONMENTAL

Leachate Monitoring Point	Date	Top of Casing Elevation (ft MSL)	Depth to Groundwater (ft below TOC)	Well Total Depth (ft below TOC)	Leachate Elevation (ft MSL)	Leachate Head (ft)
MW-9	12/13/2021	596.29	Dry	97.80	Dry	Dry
	1/31/2022		97.72	98.00	498.57	0.28
	2/28/2022		Dry	98.22	Dry	Dry
	3/15/2022		Dry	98.25	Dry	Dry
	4/19/2022		Dry	98.90	Dry	Dry
	5/19/2022		Dry	99.95	Dry	Dry
	6/23/2022		Dry	99.98	Dry	Dry
	7/14/2022		Dry	99.97	Dry	Dry
	8/25/2022		Dry	99.97	Dry	Dry
	9/22/2022		Dry	99.98	Dry	Dry
	10/26/2022		Dry	99.98	Dry	Dry
	11/16/2022		Dry	99.98	Dry	Dry
	12/15/2022		Dry	99.98	Dry	Dry
	1/25/2023		Dry	99.98	Dry	Dry
	2/21/2023		Dry	99.98	Dry	Dry
	3/20/2023		97.28	99.10	499.01	1.82
	4/27/2023		97.29	99.10	499.00	1.81
	5/8/2023		97.42	99.10	498.87	1.68
	6/1/2023		97.28	99.10	499.01	1.82
	7/25/2023		97.28	99.19	499.01	1.91
	8/30/2023		97.28	98.00	498.67	0.72
	9/25/2023		97.30	97.59	498.99	0.29
	10/4/2023		97.38	98.00	498.91	0.62
	11/9/2023		97.41	98.00	498.88	0.59
MW-10	12/13/2021	594.16	Dry	98.37	Dry	Dry
	1/31/2022		Dry	98.37	Dry	Dry
	2/28/2022		Dry	98.28	Dry	Dry
	3/15/2022		Dry	98.20	Dry	Dry
	4/19/2022		Dry	101.01	Dry	Dry
	5/19/2022		Dry	100.55	Dry	Dry
	6/23/2022		Dry	100.50	Dry	Dry
	7/14/2022		Dry	100.03	Dry	Dry
	8/25/2022		Dry	100.12	Dry	Dry
	9/22/2022		Dry	100.05	Dry	Dry
	10/26/2022		Dry	100.01	Dry	Dry
	11/16/2022		Dry	100.02	Dry	Dry
	12/15/2022		Dry	100.11	Dry	Dry
	1/25/2023		96.70	98.37	497.46	1.67
	2/21/2023		95.95	98.37	498.21	2.42
	3/20/2023		97.30	98.10	496.86	0.80
	4/27/2023		Dry	98.10	Dry	Dry
	5/8/2023		Dry	98.10	Dry	Dry
	6/1/2023		Dry	98.10	Dry	Dry
	7/25/2023		Dry	98.19	Dry	Dry
	8/30/2023		Dry	97.00	Dry	Dry
	9/25/2023		Dry	96.36	Dry	Dry
	10/4/2023		Dry	97.00	Dry	Dry
	11/9/2023		Dry	97.00	Dry	Dry

Table 4
Leachate Measurement Data

BLACKSTONE ENVIRONMENTAL

UL-1	12/13/2021	553.79	Dry	9.41	Dry	Dry
	1/31/2022		Dry	9.70	Dry	Dry
	2/28/2022		Dry	9.58	Dry	Dry
	3/15/2022		Dry	9.60	Dry	Dry
	3/21/2022		Dry	7.58	Dry	Dry
	4/19/2022		Dry	5.54	Dry	Dry
	5/19/2022		8.56	9.56	545.23	1.00
	6/23/2022		Dry	9.63	Dry	Dry
	7/14/2022		Dry	9.61	Dry	Dry
	8/25/2022		Dry	9.60	Dry	Dry
	9/22/2022		Dry	9.61	Dry	Dry
	10/26/2022		Dry	9.60	Dry	Dry
	11/16/2022		Dry	9.60	Dry	Dry
	12/15/2022		Dry	9.58	Dry	Dry
	1/25/2023		Dry	9.58	Dry	Dry
	2/21/2023		Dry	9.58	Dry	Dry
	3/20/2023		Dry	9.59	Dry	Dry
	4/27/2023		Dry	9.59	Dry	Dry
	5/8/2023		Dry	9.59	Dry	Dry
	6/1/2023		Dry	9.60	Dry	Dry
	7/25/2023		Dry	9.60	Dry	Dry
	8/30/2023		Dry	9.70	Dry	Dry
	9/25/2023		Dry	9.59	Dry	Dry
	10/4/2023		9.34	9.70	544.45	0.36
	11/9/2023		Dry	9.70	Dry	Dry
UL-2R	9/30/2022	545.37	8.00	10.17	537.37	2.17
	10/6/2022		8.81	10.10	536.56	1.29
	10/14/2022		9.75	10.17	535.62	0.42
	10/20/2022		9.92	10.17	535.45	0.25
	10/26/2022		9.90	10.15	535.47	0.25
	11/16/2022		9.93	10.16	535.44	0.23
	12/15/2022		9.96	10.10	535.41	0.14
	1/25/2023		7.95	10.10	537.42	2.15
	1/31/2023		5.98	10.10	539.39	4.12
	2/8/2023		9.25	10.10	536.12	0.85
	2/21/2023		7.99	10.10	537.38	2.11
	3/2/2023		7.42	10.17	537.95	2.75
	3/9/2023		7.75	10.17	537.62	2.42
	3/16/2023		7.92	10.17	537.45	2.25
	3/20/2023		8.22	10.17	537.15	1.95
	3/30/2023		7.83	10.17	537.54	2.34
	4/5/2023		7.42	10.17	537.95	2.75
	4/14/2023		8.92	10.17	536.45	1.25
	4/21/2023		8.42	10.17	536.95	1.75
	4/27/2023		9.00	10.16	536.37	1.16
	5/3/2023		9.67	10.17	535.70	0.50
	5/8/2023		8.50	10.16	536.87	1.66
	6/1/2023		9.56	10.16	535.81	0.60
	7/25/2023		8.43	10.20	536.94	1.77
	8/18/2023		8.24	10.00	533.94	1.76
	8/25/2023		8.68	10.00	533.94	1.32
	8/30/2023		8.37	10.24	533.94	1.87
	9/25/2023		8.85	10.17	536.52	1.32
	10/4/2023		8.84	10.24	536.53	1.40
	10/13/2023		8.25	10.17	537.12	1.92
	10/25/2023		8.17	10.17	537.20	2.00
	11/2/2023		8.17	10.17	537.20	2.00
	11/9/2023		9.31	10.24	536.06	0.93

Table 4
Leachate Measurement Data

BLACKSTONE ENVIRONMENTAL

UL-3R	9/30/2022	546.05	8.83	10.33	537.22	1.50
	10/6/2022		9.94	10.25	536.11	0.31
	10/14/2022		Dry	10.33	Dry	Dry
	10/20/2022		Dry	10.33	Dry	Dry
	10/26/2022		Dry	10.31	Dry	Dry
	11/16/2022		Dry	10.30	Dry	Dry
	12/15/2022		Dry	10.25	Dry	Dry
	1/25/2023		8.56	10.35	537.49	1.79
	1/31/2023		9.78	10.31	536.27	0.53
	2/21/2023		8.91	10.35	537.14	1.44
	3/2/2023		7.66	10.33	538.39	2.67
	3/9/2023		9.25	10.33	536.80	1.08
	3/16/2023		9.42	10.33	536.63	0.91
	3/20/2023		9.75	10.33	536.30	0.58
	3/30/2023		8.42	10.33	537.63	1.91
	4/5/2023		7.33	10.33	538.72	3.00
	4/14/2023		8.92	10.33	537.13	1.41
	4/21/2023		8.75	10.33	537.30	1.58
	4/27/2023		9.45	10.45	536.60	1.00
	5/3/2023		10.33	10.33	535.72	0.00
	5/8/2023		Dry	10.45	Dry	Dry
	6/1/2023		Dry	10.45	Dry	Dry
	7/25/2023		10.27	10.38	535.78	0.11
	8/30/2023		Dry	10.38	Dry	Dry
	9/25/2023		Dry	10.35	Dry	Dry
	10/4/2023		Dry	10.38	Dry	Dry
	11/9/2023		Dry	10.38	Dry	Dry
UL-2	12/13/2021	542.31	5.93	7.16	536.38	1.23
	1/31/2022		5.11	7.31	537.20	2.20
	2/1/2022		5.50	7.30	536.81	1.80
	2/8/2022		5.08	7.06	537.23	1.98
	2/14/2022		5.07	7.07	537.24	2.00
	2/21/2022		4.9	7.20	537.41	2.30
	2/28/2022		4.69	7.20	537.62	2.51
	3/8/2022		3.88	7.21	538.43	3.33
	3/15/2022		5.27	7.18	537.05	1.92
	3/21/2022		3.58	7.17	538.73	3.59
	3/29/2022		3.6	7.17	538.73	3.59
	4/9/2022		3.21	7.17	539.10	3.96
	4/12/2022		3.25	7.17	539.06	3.92
	4/19/2022		2.90	7.21	539.41	4.31
	4/27/2022		3.08	7.17	539.23	4.09
	5/4/2022		3.00	7.17	539.31	4.17
	5/11/2022		3.04	7.17	539.27	4.13
	5/19/2022		3.26	7.20	539.05	3.94
	5/23/2022		3.50	7.17	538.81	3.67
	6/1/2022		3.29	7.17	539.02	3.88
	6/6/2022		3.50	7.17	538.81	3.67
	6/17/2022		3.33	7.17	538.98	3.84
	6/20/2022		3.54	7.17	538.77	3.63
	6/23/2022		4.23	7.22	538.08	2.99
	6/30/2022		3.46	7.17	538.85	3.71
	7/6/2022		3.38	7.17	538.93	3.79
	7/14/2022		3.52	7.20	538.79	3.68
	7/19/2022		3.58	7.17	538.73	3.59
	7/26/2022		3.96	7.17	538.35	3.21
	8/5/2022		4.42	7.17	537.89	2.75
	8/10/2022		4.00	7.17	538.31	3.17
	8/18/2022		4.88	7.17	537.43	2.29
	8/25/2022		3.95	7.20	538.36	3.25
	9/1/2022		4.58	7.17	537.73	2.59
	9/8/2022		4.67	7.17	537.64	2.50
	9/16/2022		4.58	7.17	537.73	2.59
	9/23/2022		3.90	7.21	538.41	3.31

Table 4
Leachate Measurement Data

UL-3	12/13/2021	543.11	Dry	7.42	Dry	Dry
	1/31/2022		7.50	7.50	535.61	0.00
	2/28/2022		5.98	7.45	537.13	1.47
	3/8/2022		5.25	7.29	537.86	2.04
	3/15/2022		5.87	7.15	537.25	1.29
	3/21/2022		5.42	7.42	537.69	2.00
	3/29/2022		6.13	7.42	536.98	1.29
	4/6/2022		5.04	7.42	538.07	2.38
	4/12/2022		5.13	7.42	537.98	2.29
	4/19/2022		4.08	7.42	539.03	3.34
	4/27/2022		4.38	7.42	538.73	3.04
	5/4/2022		4.33	7.42	538.78	3.09
	5/11/2022		4.54	7.42	538.57	2.88
	5/19/2022		5.05	7.47	538.06	2.42
	5/23/2022		5.40	7.42	537.71	2.02
	6/1/2022		4.92	7.42	538.19	2.50
	6/6/2022		5.29	7.42	537.82	2.13
	6/17/2022		5.13	7.42	537.98	2.29
	6/20/2022		5.17	7.42	537.94	2.25
	6/23/2022		5.52	7.45	537.59	1.93
	6/30/2022		5.13	7.42	537.98	2.29
	7/6/2022		4.83	7.42	538.28	2.59
	7/14/2022		5.19	7.43	537.92	2.24
	7/19/2022		4.92	7.42	538.19	2.50
	7/26/2022		5.42	7.42	537.69	2.00
	8/5/2022		5.67	7.42	537.44	1.75
	8/10/2022		5.50	7.42	537.61	1.92
	8/18/2022		5.75	7.42	537.36	1.67
	8/25/2022		6.61	7.48	536.50	0.87
	9/1/2022		5.50	7.42	537.61	1.92
	9/8/2022		5.67	7.42	537.44	1.75
	9/16/2022		5.50	7.42	537.61	1.92
	9/23/2022		6.57	7.45	536.54	0.88

ft below TOC - feet below top of casing

ft MSL - feet above mean sea level

NM - not monitored

N/A - Not available

During the January 2023 measureing event, field staff inadvertantly purged the leachate points. A second measurement was collected, but it was after the leachate points were purged.

Table 5
Lower Lysimeter Measurement Data

BLACKSTONE ENVIRONMENTAL

Leachate Monitoring Point	Date	Top of Casing Elevation (ft MSL)	Depth to Groundwater (ft below TOC)	Well Total Depth (ft below TOC)	Liquid Elevation (ft MSL)	Liquid Head (ft)
LL-1	12/13/2021	553.39	Dry	24.60	Dry	Dry
	1/31/2022		Dry	24.60	Dry	Dry
	2/28/2022		20.48	25.84	532.91	5.36
	3/8/2022		21.08	24.58	532.31	3.50
	3/15/2022		22.49	24.60	530.90	2.11
	4/19/2022		Dry	3.27	Dry	Dry
	5/19/2022		20.82	24.60	532.57	3.78
	6/23/2022		Dry	24.66	Dry	Dry
	7/14/2022		Dry	24.60	Dry	Dry
	8/25/2022		Dry	24.61	Dry	Dry
	9/22/2022		Dry	24.60	Dry	Dry
	10/26/2022		Dry	24.62	Dry	Dry
	11/16/2022		Dry	24.61	Dry	Dry
	12/15/2022		Dry	24.59	Dry	Dry
	1/26/2023		21.00	24.64	532.39	3.64
	2/21/2023		20.75	24.64	532.64	3.89
	3/20/2023		21.00	24.69	532.39	3.69
	4/27/2023		21.20	24.69	532.19	3.49
	5/8/2023		21.42	24.69	531.97	3.27
	6/1/2023		20.84	24.69	532.55	3.85
	7/25/2023		22.59	24.60	530.80	2.01
	8/30/2023		22.41	24.60	530.98	2.19
	9/25/2023		22.92	24.64	530.47	1.72
	10/4/2023		22.94	24.60	530.45	1.66
	11/9/2023		19.43	24.60	533.96	5.17
LL-2	12/13/2021	540.73	9.98	10.90	530.76	0.92
	1/31/2022		8.90	11.00	531.83	2.10
	2/1/2022		9.50	10.80	531.23	1.30
	2/8/2022		8.95	10.78	531.78	1.83
	2/14/2022		9.21	10.78	531.52	1.57
	2/21/2022		8.2	10.10	532.58	1.95
	2/28/2022		8.92	10.90	531.82	1.99
	3/8/2022		8.96	10.88	531.77	1.92
	3/15/2022		9.38	10.93	531.36	1.56
	4/19/2022		8.92	10.91	531.81	1.99
	5/19/2022		7.80	10.90	532.93	3.10
	6/23/2022		8.71	10.91	532.02	2.20
	7/14/2022		8.56	10.90	532.17	2.34
	8/25/2022		8.68	10.93	532.05	2.25
	9/23/2022		8.65	10.90	532.08	2.25
	10/26/2022		8.69	10.91	532.04	2.22
	11/16/2022		8.65	10.90	532.08	2.25
	12/15/2022		7.88	10.89	532.85	3.01
	1/25/2023		8.74	10.89	531.99	2.15
	2/21/2023		8.93	10.89	531.80	1.96
	3/20/2023		8.72	10.90	532.01	2.18
	4/27/2023		8.41	10.89	532.32	2.48
	5/8/2023		8.70	10.89	532.03	2.19
	6/1/2023		8.41	10.89	532.32	2.48
	7/25/2023		7.84	11.00	532.89	3.16
	8/30/2023		7.93	11.00	532.80	3.07
	9/25/2023		7.50	10.90	533.23	3.40
	10/4/2023		7.41	11.00	533.32	3.59
	11/9/2023		10.97	11.00	529.76	0.03
LL-3	12/13/2021	541.20	Dry	10.73	Dry	Dry
	1/31/2022		9.51	10.80	531.70	1.30
	2/1/2022		9.42	10.80	531.78	1.38
	2/8/2022		9.56	10.67	531.64	1.11
	2/14/2022		10.11	10.59	531.09	0.48
	2/21/2022		9.1	10.80	532.10	1.70
	2/28/2022		9.86	10.73	531.34	0.87
	3/8/2022		9.88	10.71	531.32	0.83
	3/15/2022		10.72	10.75	530.48	0.03
	4/19/2022		9.79	10.75	531.41	0.96
	5/19/2022		9.55	10.70	531.65	1.15
	6/23/2022		9.56	10.75	531.64	1.19
	7/14/2022		9.51	10.73	531.69	1.22
	8/25/2022		9.43	10.75	531.77	1.32
	9/23/2022		9.40	10.73	531.80	1.33
	10/26/2022		9.38	10.70	531.82	1.32
	11/16/2022		9.35	10.71	531.85	1.36
	12/15/2022		9.54	10.70	531.66	1.16
	1/25/2023		9.85	10.73	531.35	0.88
	2/21/2023		9.63	10.73	531.57	1.10
	3/20/2023		9.67	10.71	531.53	1.04
	4/27/2023		9.18	10.74	532.02	1.56
	5/8/2023		9.38	10.74	531.82	1.36
	6/1/2023		9.20	10.73	532.00	1.53
	7/25/2023		8.79	10.80	532.41	2.01
	8/30/2023		8.73	10.74	532.47	2.01
	9/25/2023		8.52	10.72	532.68	2.20
	10/4/2023		8.39	10.74	532.81	2.35
	11/9/2023		8.43	10.74	532.77	2.31

ft below TOC - feet below top of casing
ft MSL - feet above mean sea level
NM - not monitored

Table 6
Leachate Management Summary

BLACKSTONE ENVIRONMENTAL

Month	Maximum Head on Liner (feet)					Precipitation (inches)
	MW-9	MW-10	UL-1	UL-2R	UL-3R	
November 2022	0	0	0	0.23	0	2.20
December 2022	0	0	0	0.14	0	1.69
January 2023	0	1.67	0	4.12	1.79	2.18
February 2023	0	2.42	0	2.11	1.44	3.47
March 2023	1.82	0.8	0	2.75	2.67	1.91
April 2023	1.81	0	0	2.75	3.00	1.49
May 2023	1.68	0	0	1.66	0	1.38
June 2023	1.82	0	0	0.60	0	1.91
July 2023	1.91	0	0	1.77	0.11	2.63
August 2023	0.72	0	0	1.87	0	2.35
September 2023	0.29	0	0	1.32	0	5.01
October 2023	0.62	0	0.36	1.40	0	2.93
November 2023	0.59	0	0	2.00	0	5.20
12-Month Rolling Total						34.35

Notes:

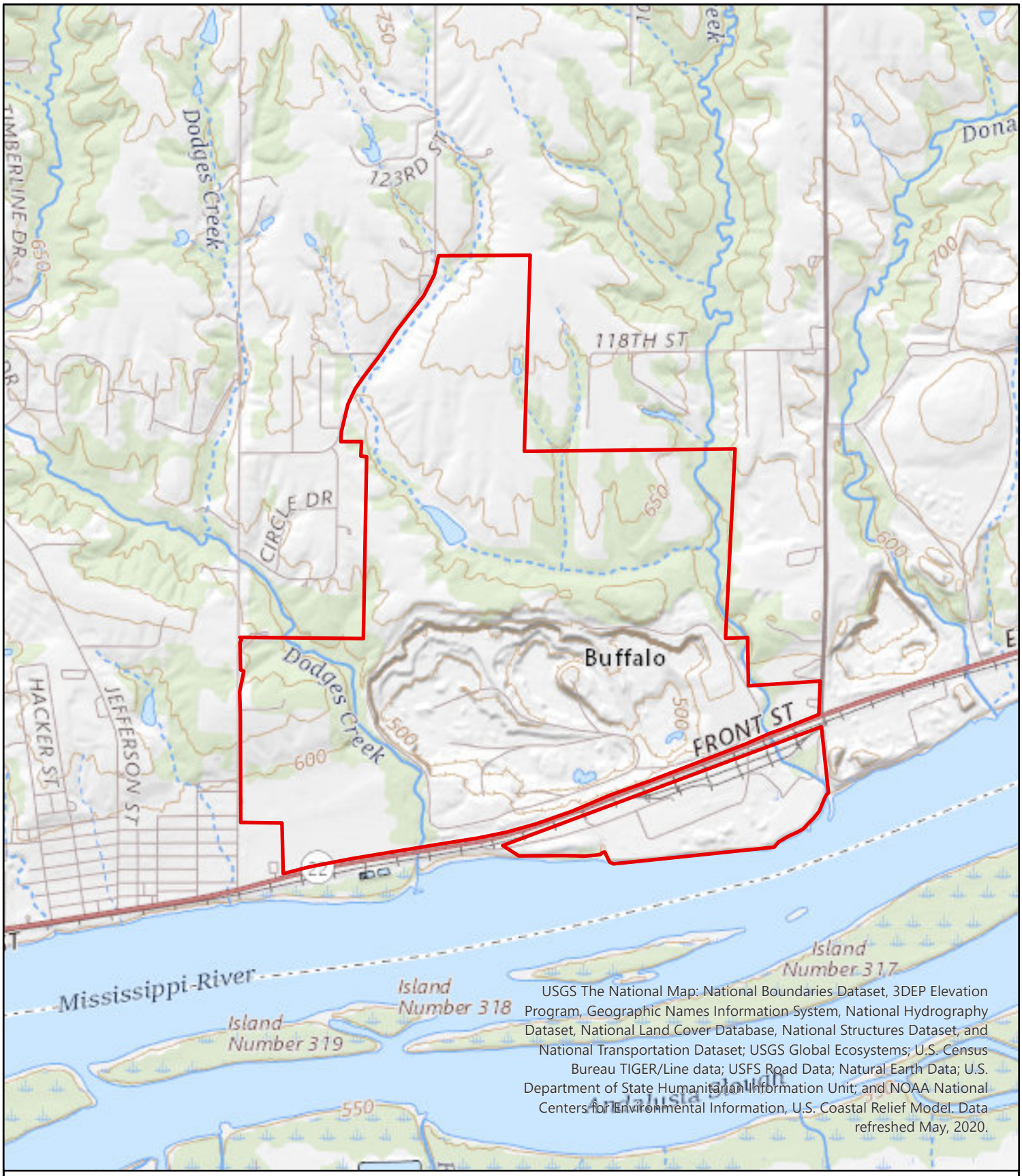
Table 7
Lower Lysimeter Management Summary

BLACKSTONE ENVIRONMENTAL

Month	Maximum Liquid Depth (feet)			Precipitation (inches)
	LL-1	LL-2	LL-3	
November 2022	0	2.25	1.36	2.20
December 2022	0	3.01	1.16	1.69
January 2023	3.64	2.15	0.88	2.18
February 2023	3.89	1.96	1.10	3.47
March 2023	3.69	2.18	1.04	1.91
April 2023	3.49	2.48	1.56	1.49
May 2023	3.27	2.19	1.36	1.38
June 2023	3.85	2.48	1.53	1.91
July 2023	2.01	3.16	2.01	2.63
August 2023	2.19	3.07	2.01	2.35
September 2023	1.72	3.40	2.20	5.01
October 2023	1.66	3.59	2.35	2.93
November 2023	5.17	0.03	2.31	5.20
12-Month Rolling Total				34.35

Notes:

FIGURES



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.

Property Boundary

N

0 1,250 2,500 5,000 Feet

FIGURE 1

Project Mgr. KB	Date: 11/2023
Designed By: TS	Rev.:
Drawn By: TS	Rev.:
Checked By: LJ	Rev.:
Job No.: 3433	Rev.:

CONTINENTAL CEMENT

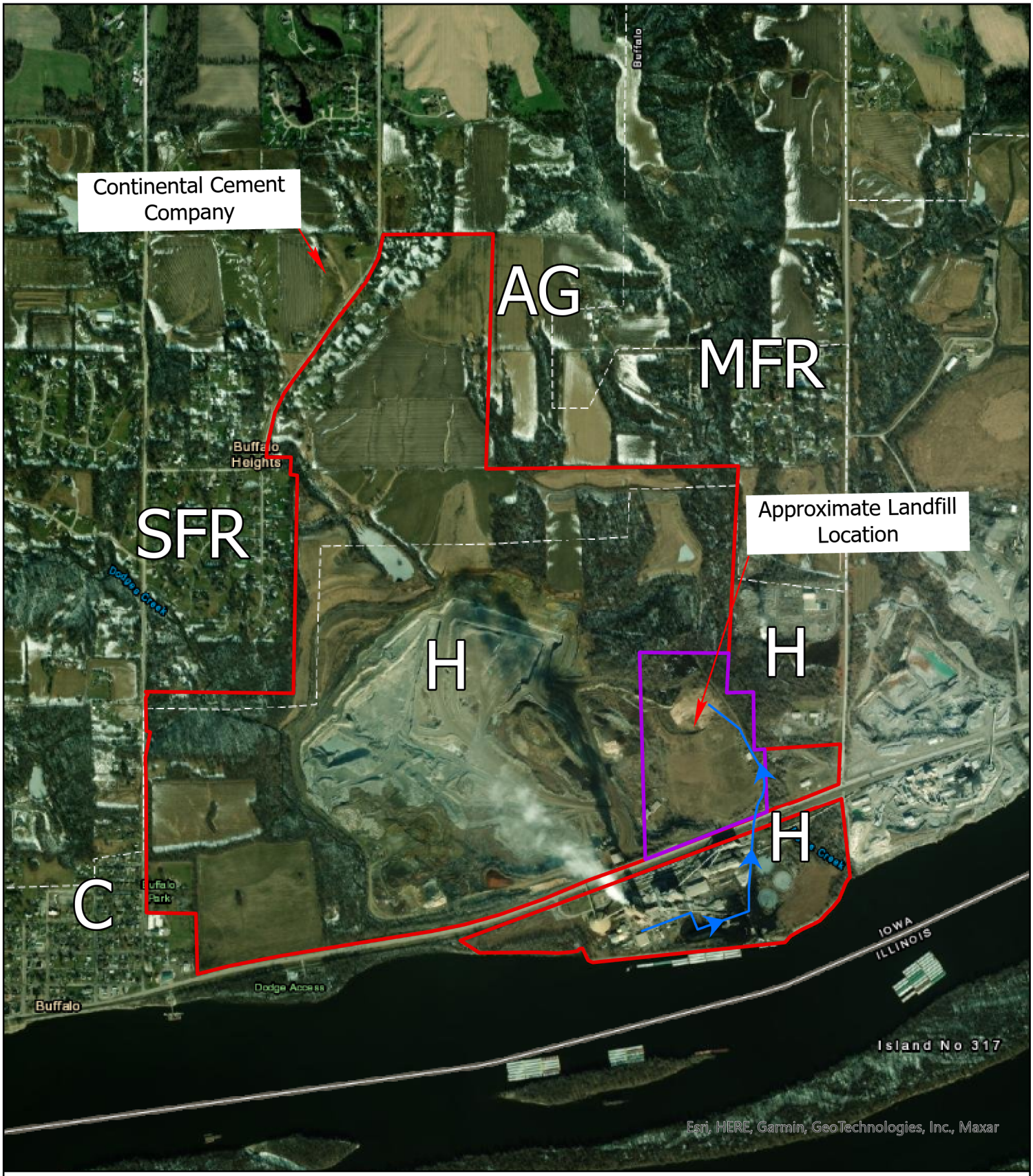
BUFFALO, IOWA

SHEET NAME
Site Topographic Vicinity Map

PROJECT NAME
Continental Cement Landfill Services

PROJECT LOCATION
301 East Front Street Buffalo, Iowa

BLACKSTONE ENVIRONMENTAL

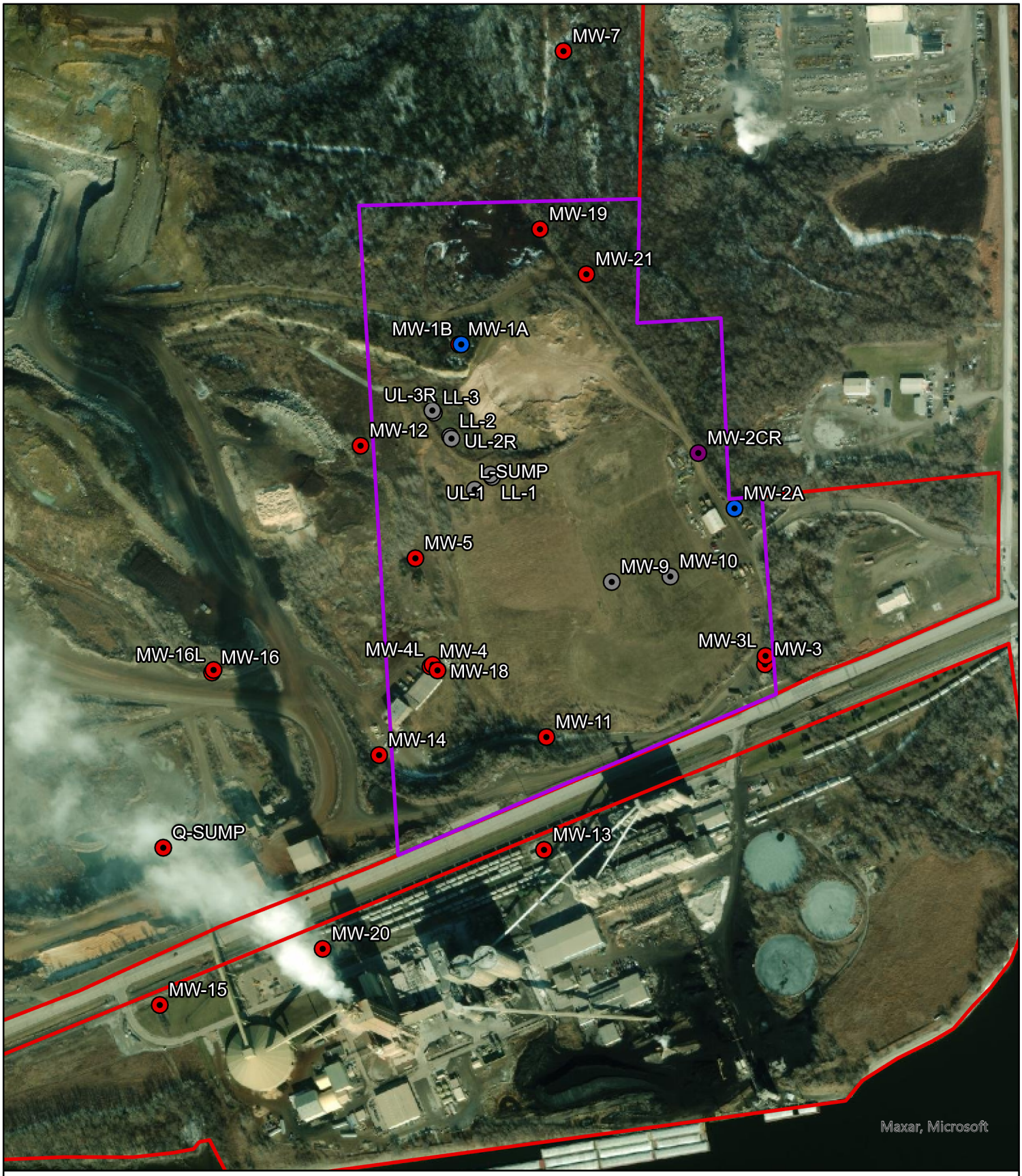


H - Heavy Industrial
C - Two Family
AG - Agricultural - General
Property Boundary
MFR - Multi-Family Residence
SFR - Single-Family Residence
Haul Route
Landfill Boundary

N

0 1,000 2,000 3,000 4,000 Feet

FIGURE 2	Project Mgr. KB	Date: 11/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Site Plan	BLACKSTONE ENVIRONMENTAL
	Designed By: ME	Rev.:		PROJECT NAME: Continental Cement Landfill Services	
	Drawn By: ME	Rev.:		PROJECT LOCATION: 301 East Front Street Buffalo, Iowa	
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			



Shallow
Deep
Leachate
Stope
Landfill Boundary
Property Boundary

Note: MW-20 and MW-21 installed July 2021

N

0 305 610 1,220 Feet

FIGURE 3	Project Mgr. KB	Date: 11/2023	CONTINENTAL CEMENT BUFFALO, IOWA
	Designed By: TS	Rev.:	
	Drawn By: TS	Rev.:	
	Checked By: LJ	Rev.:	
	Job No.: 3433	Rev.:	

SHEET NAME: Monitoring Locations
PROJECT NAME: Continental Cement Site Operations Plan
PROJECT LOCATION: 301 East Front Street Buffalo, Iowa

BLACKSTONE ENVIRONMENTAL

APPENDIX A

Continental Cement Monitoring Point Sampling Log

MW-2 92.26
167.20

CONTINENTAL CEMENT MONITORING POINT SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 3.20.23 → 3.21.23

Weather Conditions: Sunny 40-54°F

Purging/Sampling Device: NA

Samplers: MO

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	D.O (mg/L)	ORP (mV)	Sample Appearance	Sample Odor	Volume purged & Final Water Level
MW-9	—	98.28	99.10	—	—	—	—	—	—	—	—
MW-10	—	97.30	98.10	—	—	—	—	—	—	—	—
UL-1	—	Dry	9.59	—	—	—	—	—	—	—	—
LL-1	—	21.00	24.69	—	—	—	—	—	—	—	—
L-Sump	—	4.55	—	—	—	—	—	—	—	—	—
UL-2R	—	8.22	10.16	—	—	—	—	—	—	—	—
LL-2	—	8.72	10.90	—	—	—	—	—	—	—	—
UL-3R	—	9.75	10.45	—	—	—	—	—	—	—	—
LL-3	—	9.67	10.71	—	—	—	—	—	—	—	—

↑ measurements from above table taken 1100 - ~~1005~~ 1130

3.21.23	WL (ft btoc)
LL-1	21.02
UL-2R	8.19
LL-2	8.70
LL-3	9.69

← levels taken 1030-1100

Field Observations/Comments:

BLACKSTONE ENVIRONMENTAL

CONTINENTAL CEMENT MONITORING POINT SAMPLING LOG

Site Name: Continental Cement CKD Monofill

Date: 9-25-23

Weather Conditions: Sunny ~75

Purging/Sampling Device: Bailer

Samplers: TS

Analytical Parameters: See COC

Sample Location	Sample Time	Water Level (ft btoc)	Total Depth (ft btoc)	Temperature (Degrees C)	pH	Conductivity (uS/cm)	ORP	DO (mg/L)	Comments (Volume Purged & Final Water Level)
MW-9	insuf.	97.30	97.59						Bailer came up dry
MW-10	—	Dry	96.36	—	—	—	—	—	—
UL-1	—	Dry	9.59	—	—	—	—	—	—
LL-1	1500	22.92	24.64	17.82	12.83	21730	-116	6.33	fWL-23.56 P.V. - Sample
L-Sump	1530	16.53	—	20.72	12.79	74900	-190.7	9.09	—
UL-2R	1355	8.89	10.17	23.42	12.38	24740	-231	1.76	fWL-9.01 P.V - 5gal
LL-2	1405	7.50	10.90	18.82	6.37	12670	69	3.13	fWL-8.21 P.V. - 10gal
UL-3R	—	—	10.35	—	—	Dry	—	—	—
LL-3	1315	8.52	10.72	19.98	9.82	60340	-18	1.82	fWL-9.51 P.V.-5gal ↑ Rapidly recovered

Field Observations/Comments: All wells in good cond.

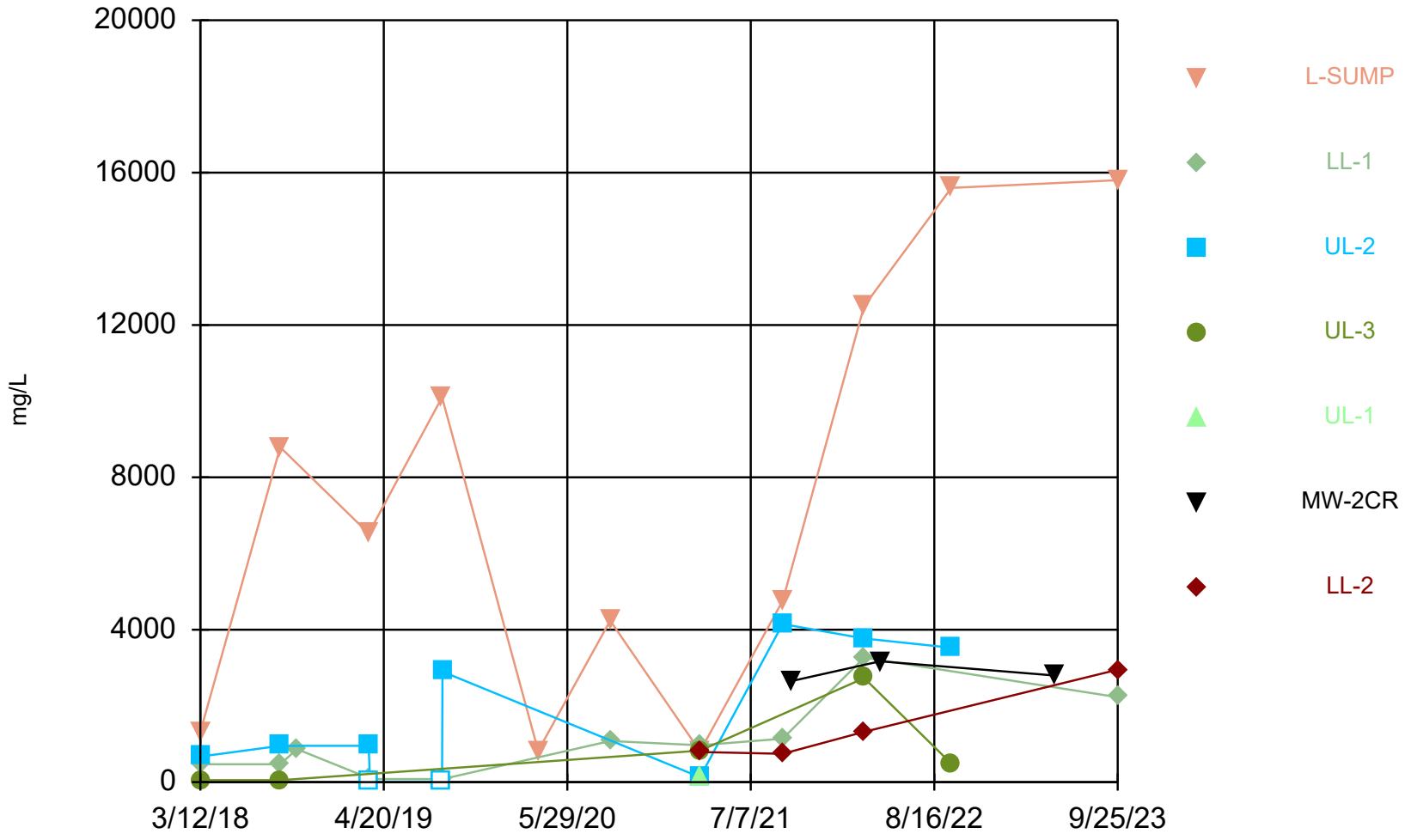
BLACKSTONE ENVIRONMENTAL

APPENDIX B

Time Series Plots

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

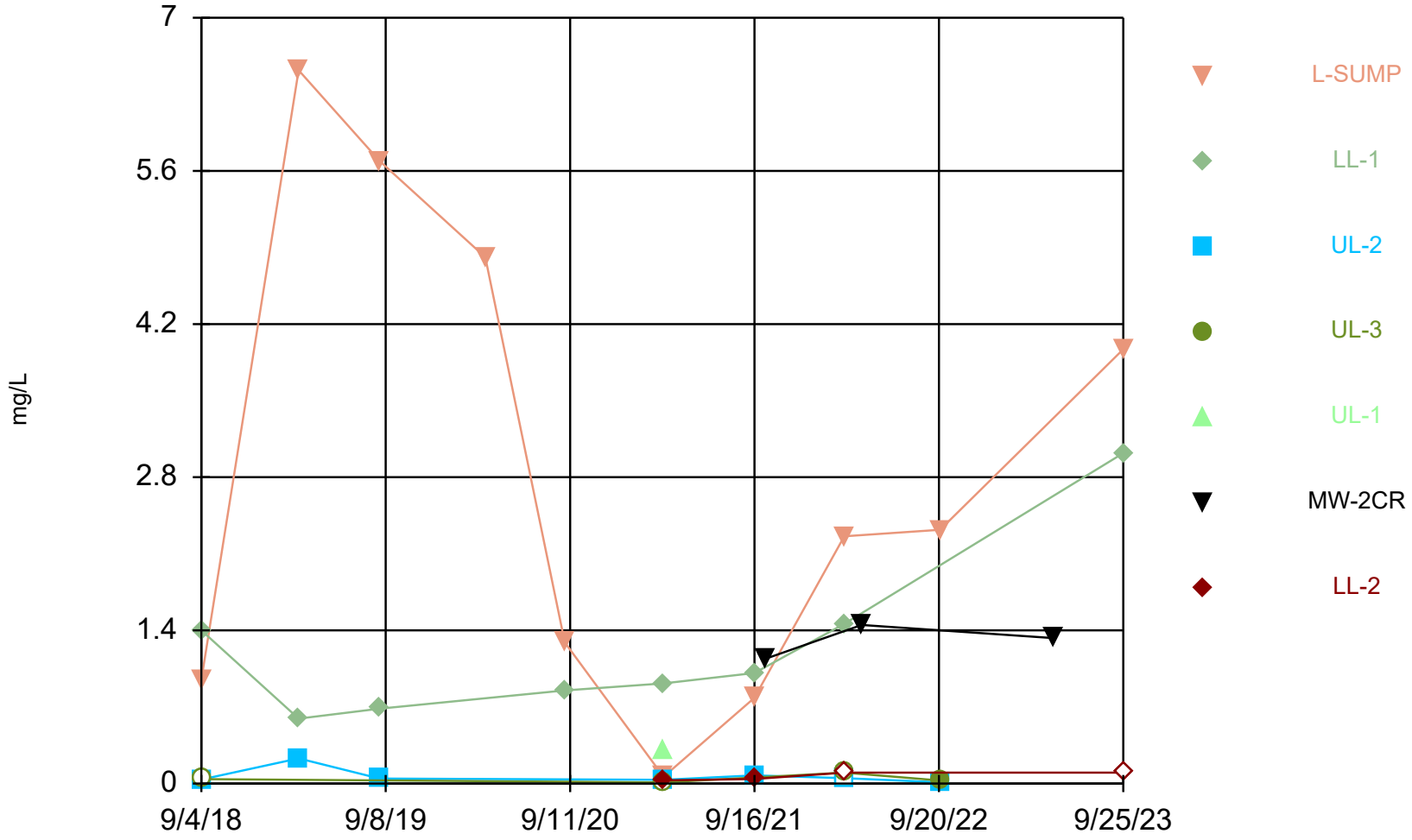


Constituent: Chloride Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

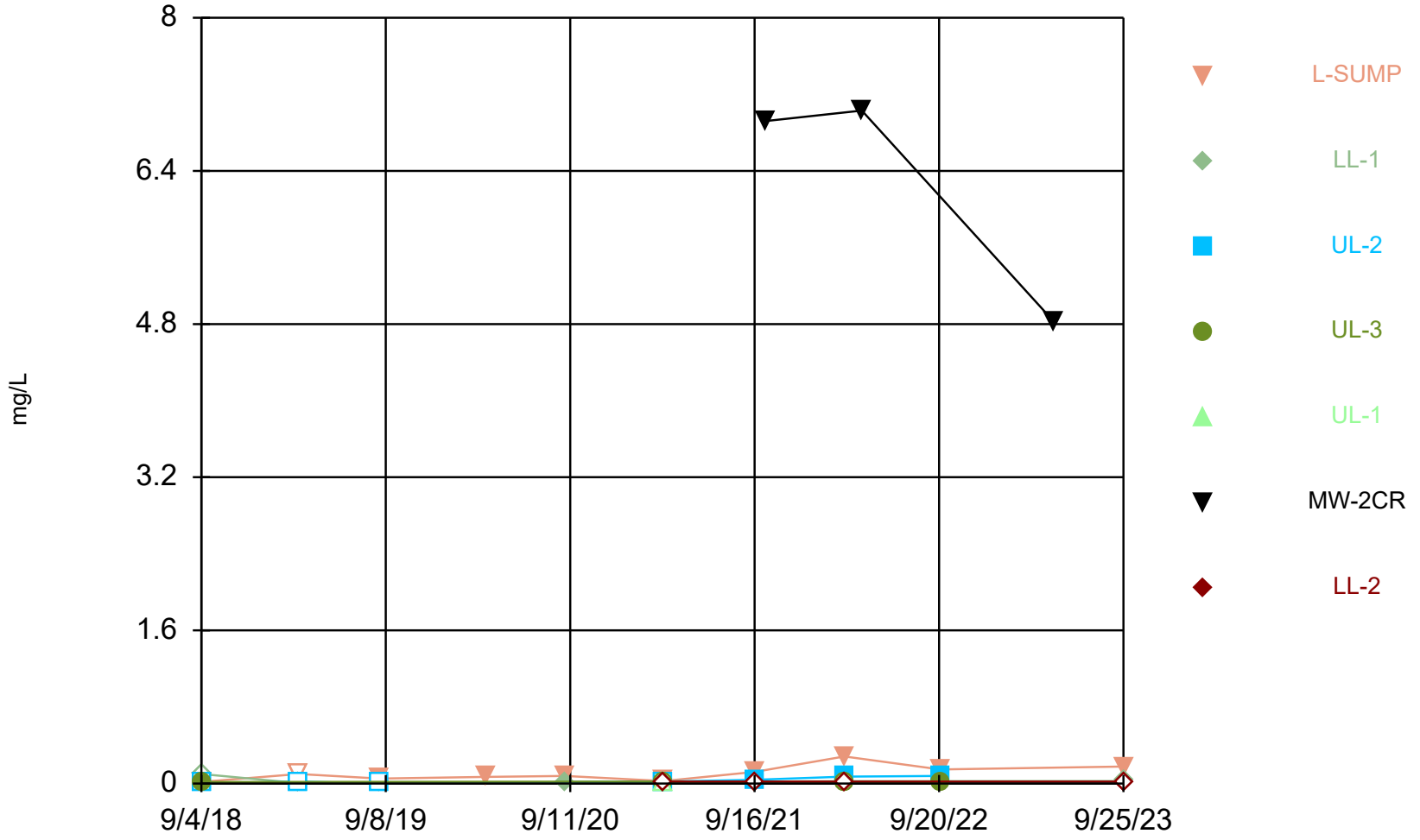


Constituent: Lithium Total Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

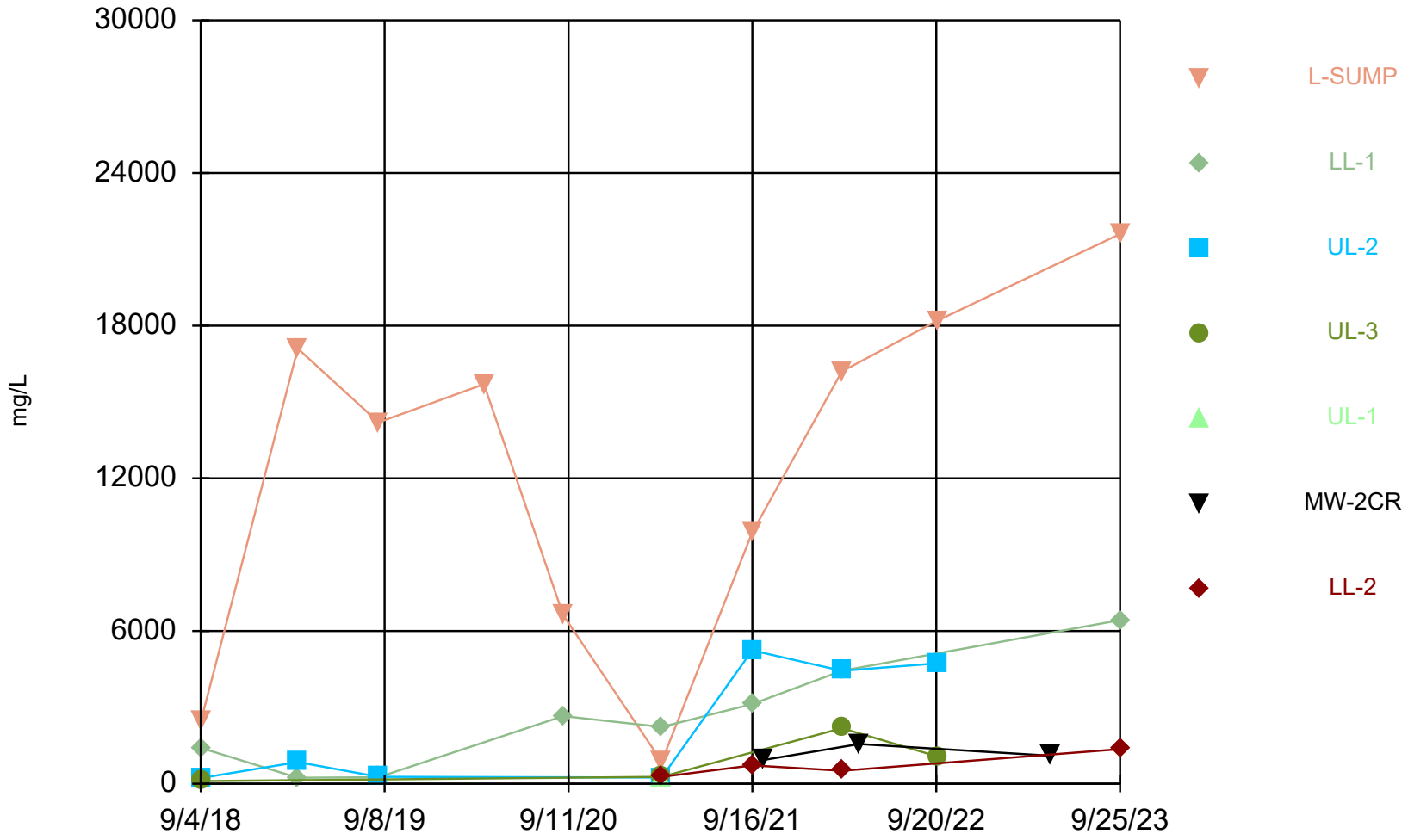


Constituent: Molybdenum Total Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Time Series

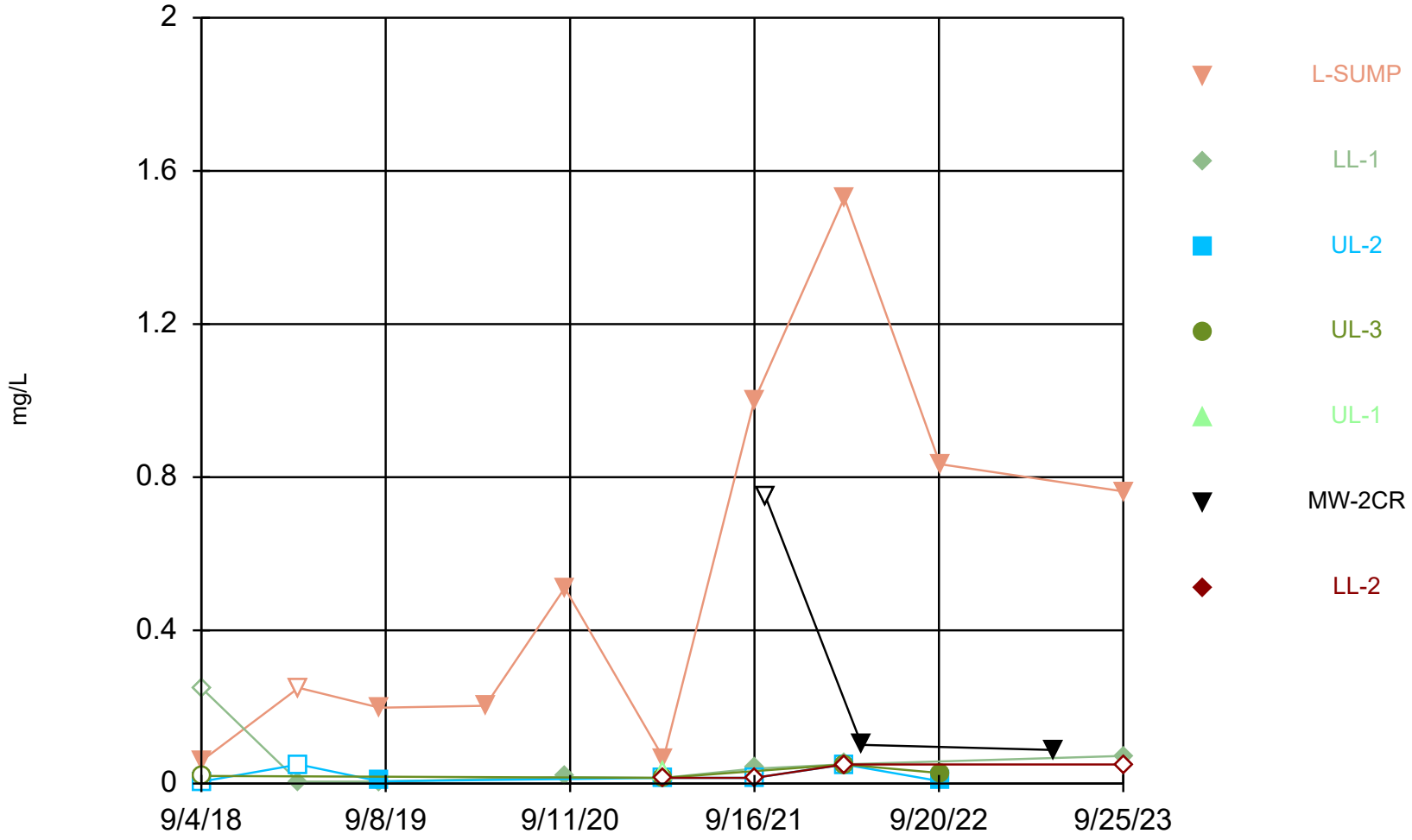


Constituent: Potassium Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG
Hollow symbols indicate censored values.

Time Series

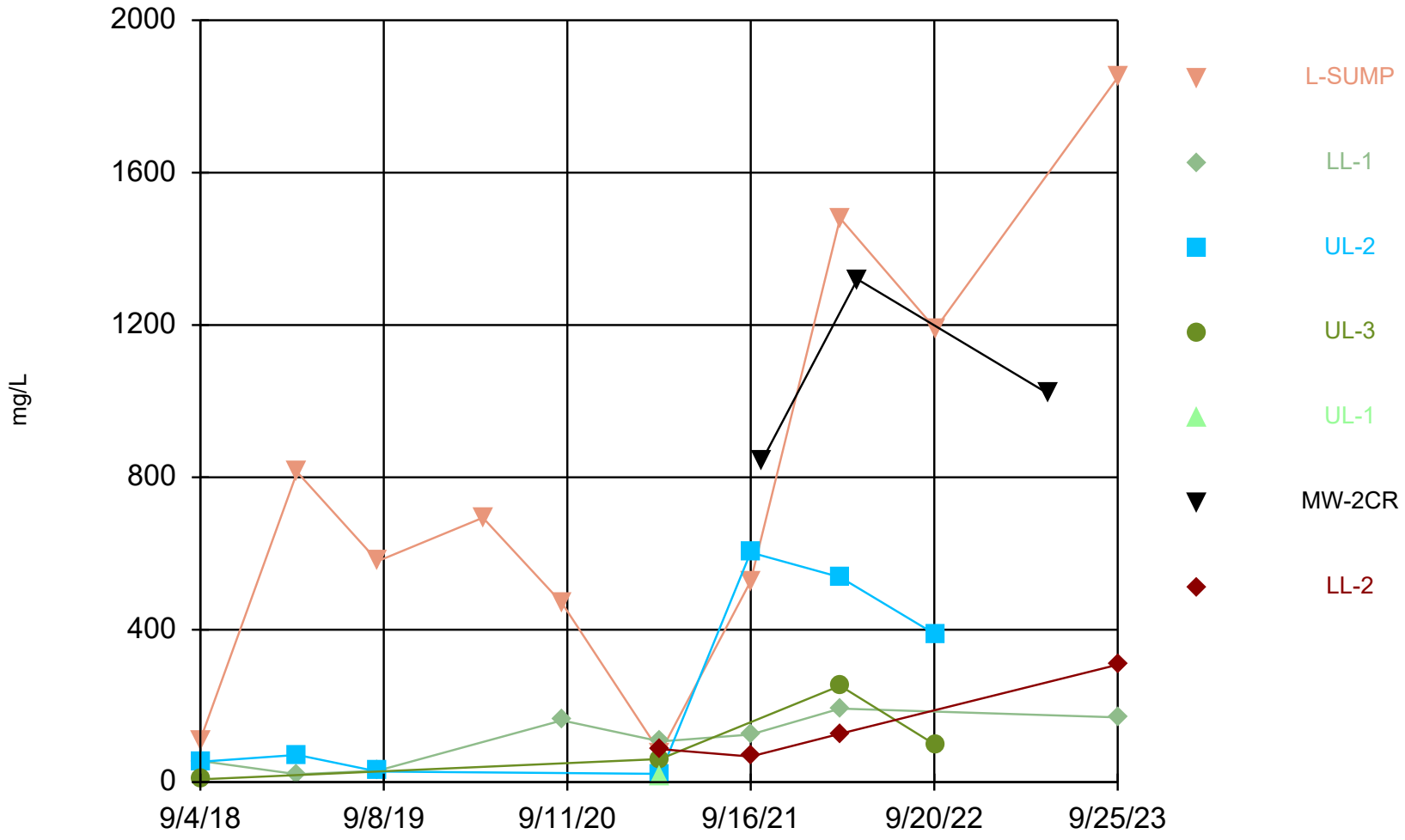


Constituent: Selenium Total Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Time Series

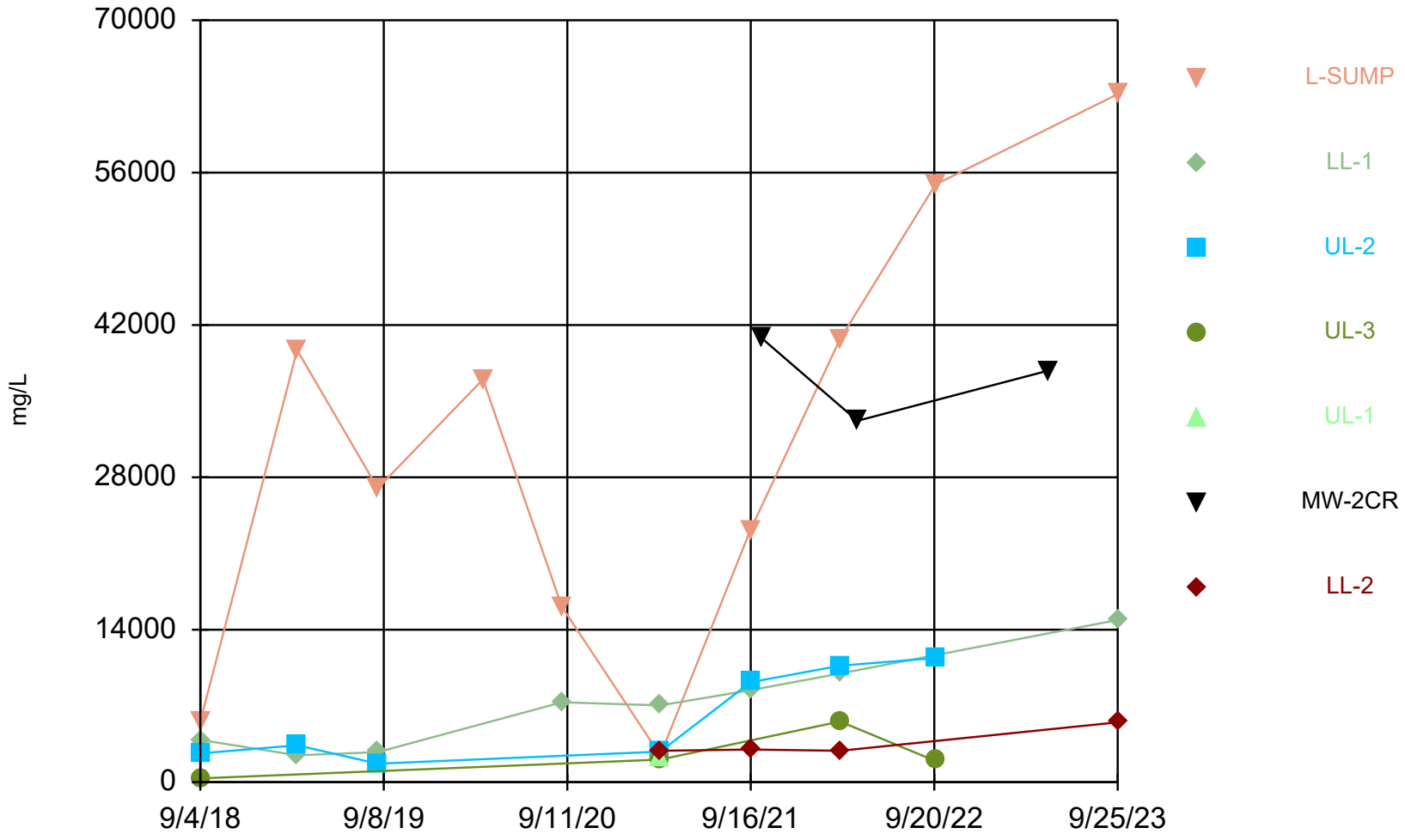


Constituent: Sodium Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

Sanitas™ v.10.0.13 Software licensed to Blackstone Environmental. UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 11/21/2023 4:06 PM View: LCS

Continental Cement Client: Continental Data: Import 1

APPENDIX G

CONTINENTAL ANNUAL WATER QUALITY REPORT

RAMP Update



Groundwater Remedial Action Mitigation Plan Update

Continental Cement CKD Monofill Landfill
Buffalo, Iowa
IDNR Landfill Permit Number 82-SDP-16-97P

Prepared for:
Continental Cement
301 East Front Street
Buffalo, Iowa 52728

Prepared by:
Blackstone Environmental, Inc.
1465 41st Street, Suite 13
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BLACKSTONE ENVIRONMENTAL

November 30, 2023

GROUNDWATER REMEDIAL ACTION MITIGATION PLAN UPDATE
CONTINENTAL CEMENT CKD MONOFILL LANDFILL
BUFFALO, IOWA

Prepared for:
Continental Cement
301 East Front Street
Buffalo, Iowa 52728

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1 Horizontal Gradients
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Acronyms/Abbreviations:

°C = degrees Celsius
Blackstone = Blackstone Environmental, Inc.
Continental = Continental Cement Company, LLC.
CKD = Cement Kiln Dust
COC = Constituent of Concern
GBZ = Groundwater Bearing Zone
HMSP = Hydrologic Monitoring System Plan
IAC = Iowa Administrative Code
IDNR = Iowa Department of Natural Resources
LKD = Lime Kiln Dust
MCL = EPA Maximum Contaminant Level
amsl = above mean sea level
RAMP = Remedial Action Mitigation Plan
Site = CKD Monofill

1.0 INTRODUCTION

This report provides an update of remedial actions taken in general accordance with the RAMP for the Continental CKD Monofill (Site) prepared by Blackstone dated, May 31, 2022. As detailed in the IDNR correspondence dated September 9, 2020, the RAMP is intended to alleviate or reduce contamination to the fullest extent possible as required by 567 IAC 115.26(9)“d.” The letter specifies the RAMP must address contamination measured above health-based standards in Site monitoring points MW-2CR, MW-3L, MW-4, MW-4L, MW-5, MW-7, MW-11, MW-12, MW-14, and MW-18. Despite potential off-site impacts, the letter directs Continental to include MW2-CR in its sampling and include measures to alleviate/reduce contaminant concentrations attributable to a CKD source.

The purpose of the RAMP was to summarize the environmental conditions at the Site and evaluate the technical Site data to justify selection of the remedial action to address the environmental impacts to groundwater. The RAMP describes the understood nature and extent of the COCs, describes remedial action objectives and proposed remedial action response, and discusses evaluation procedures to monitor COC reductions in groundwater.

2.0 SITE DESCRIPTION

2.1 Site Location

The Continental CKD Monofill is located within a portion of Continental’s former rock quarry at the Continental facility located in the Southeast Quarter of Section 23, Township 77 North, Range 02 East, in Scott County, Iowa.

A Site Plan showing the monitoring plan details is included as Figure 1.

2.2 Hydrogeologic Setting

Local stratigraphy consists of basin fill deposits from the Middle to Lower Devonian and Upper Silurian marine sequences. Some regions of Scott County also have Lower Pennsylvania outcrops. Regional dip of the strata is expected to be gently dipping to the southwest/west. Bedrock in the region of the Site consists of units of the Cedar Valley Group, Wapsipinicon Group, Gower Formation, and Scotch Grove Formation (in descending order).

Groundwater at the Site is within the regional Silurian-Devonian aquifer. This aquifer is confined by the Lime Creek Formation in the upper Devonian and the Maquoketa Formation in the upper Ordovician. In the east/northeastern portion of Iowa, the Lime Creek Formation has been eroded

and the Silurian-Devonian aquifer is unconfined. Due to the Site being located within a river valley, the aquifer is locally expected to be mechanically mature with higher secondary porosity from carbonate chemical erosion and generally will have higher well yields and faster recovery. The aquifer is generally expected to partially drain into the Mississippi River or act as recharge to the confined portion of the aquifer in central Iowa.

Historically, groundwater was monitored by wells in three GBZs on the Site: the Upper GBZ (Cedar Valley); the Middle GBZ (Devonian); and the Lower GBZ (Silurian). Review of available information and literature appears to support that the Otis Formation is locally a leaky confining unit, allowing connectivity between the Lower GBZ and the Middle GBZ. As discussed in the Revised HMSP and based on review of available information and literature, groundwater potentiometric surface maps, and geochemical data, it was recommended that the Middle and Lower GBZ be treated as a single monitorable unit identified as the Deep Zone. The Upper GBZ is referred to as the Shallow Zone. Groundwater in the Deep Zone generally flows from the southeast to the northwest/west. While waters in the Shallow Zone are discontinuous due to mining activities in the surrounding area.

2.3 Groundwater Monitoring Network

The current groundwater monitoring system for the Landfill consists of 19 groundwater monitoring wells including MW-1A, MW-1B, MW-2A, MW-3L, MW-4, MW-4L, MW-5, MW-7, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-16L, MW-18, MW-19, MW-20, and MW-21. Monitoring well MW-3 is damaged and cannot be sampled, therefore it is functioning as a piezometer.

There are nine lysimeter monitoring points at the Site. Five of the monitoring points are located within the closed CKD monofill including MW-9, MW-10, UL-1, LL-1, and the Leachate Sump. The remaining four monitoring points are located within the active CKD monofill and include UL-2R, LL-2, UL-3R, and LL-3. Leachate lysimeter monitoring points UL-1, UL-2R, and UL-3R monitor the leachate thickness in the upper drainage layer of the leachate collection system. Lysimeter monitoring points LL-1, LL-2, and LL-3 monitor for liquid in the lower drainage layer. The Leachate Sump is a collection point for both the active and closed cells liner lysimeters.

The stope well, MW-2CR, is located within an undermined (stope) area associated with the neighboring Linwood mine.

The groundwater monitoring network is sampled in accordance with the Revised HMSP prepared by Blackstone and dated, April 19, 2021.

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3.0 HYDROGEOLOGY

While waters in the Shallow Zone are discontinuous due to mining activities the Deep Zone is mostly continuous and makes up the majority of the monitoring well network. Deep Zone wells are installed into the Silurian-Devonian aquifer consisting of bedrock from the Davenport member, Spring Grove Member, and the Otis Member. Quarry activities around the Monofill have largely removed the Davenport Member and a portion of the Spring Grove Member. Underground mining activities east of the Monofill by the neighboring facility were set within the Davenport and Spring Grove Members.

The quarry floor of the Monofill at the Site is approximately 490 to 476 feet amsl based on drilling performed by Terracon in 2011 and design drawings (LaFarge, 1996). Drilling by Komex International in 1996 of the nested well pair east of the Monofill (MW-2A, MW-2B, and MW-2C) encountered the underground mine stope of the neighboring Linwood Facility. The roof of the mine stope in the western portion of the Linwood Facility is approximately 508 feet amsl and the floor is approximately 485 feet amsl.

A groundwater surface model was produced for the Deep Zone monitoring wells based on groundwater elevations from the May 2023 monitoring event using Visual MODFLOW Flex 7.0 (Figure 2). Kriging was used to derive the surface from groundwater elevations. The surface model generally shows that wells closer to the Mississippi River are local high points. Groundwater is locally controlled by a small depression in the surface around MW-3L and MW-11. A small hydrogeologic ridge divides the groundwater flow at the Site around MW-14 to MW-4/4L/18. Groundwater flows northwest and southeast away from this ridge. It also appears that water in the mine stope are at a local high relative to the surrounding monitoring wells.

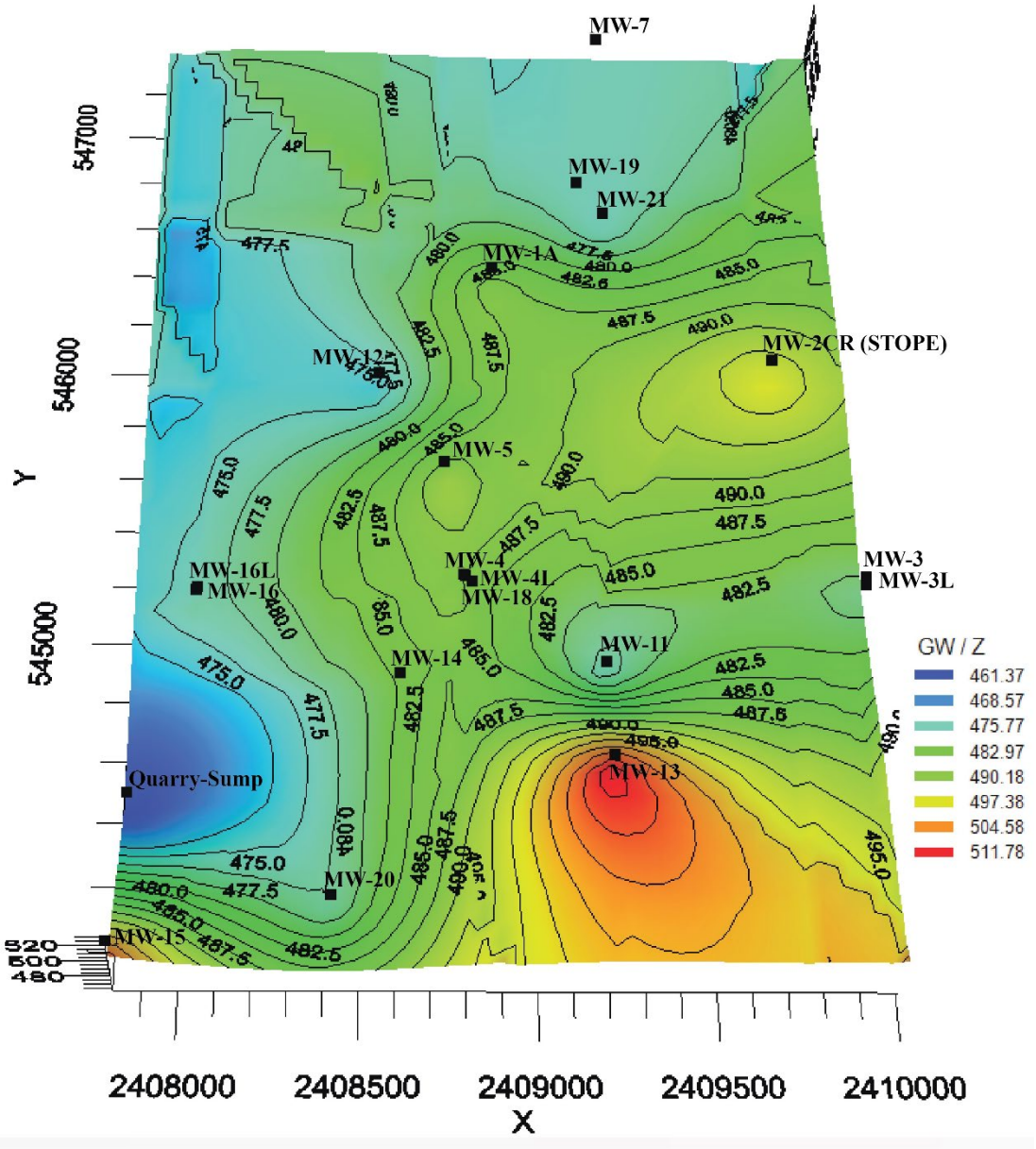


Figure 2 – Groundwater surface model drafted in Visual MODFLOW Flex 7.0. Based on May 2023 groundwater monitoring data. Basic kriging was used to generate the surface. Elevations are in feet amsl.

In addition to surface modeling, vertical and horizontal gradient calculations were performed for select groupings of wells. Wells were selected based on their local relationships in the surface model and were used to define the hydrologic relationship between well pairs. Vertical gradients were calculated as mid-screen gradients. Note, a negative vertical gradient represents a downward flow and a positive gradient represents an upward flow. The gradient calculations for

MW-2CR include all months when the mine stope was accessed and are compared to readings from that same period.

Horizontal Gradient (ft/ft)			
	Oct-21	**Apr-22**	**May-23**
MW-2CR to MW-21	0.030390	0.025750	0.025395
MW-2CR to MW-3L	0.029328	0.022775	0.020984
MW-2CR to MW-5	0.007354	0.002433	0.002213
MW-2CR to MW-11	0.021656	0.016257	0.016174
MW-2CR to MW-4/4L/18	0.007828	0.007942	0.005948
	Mar-23	**May-23**	**Sep-23**
MW-12 to MW-5	-0.023944	-0.025738	-0.016169
MW-5 to MW-4/4L/18	0.010885	0.012548	0.003066
MW-4/4L/18 to MW-14	0.020698	0.013312	0.016816
MW-4/4L/18 to MW-11	0.021326	0.023636	0.034898
MW-14 to MW-16	0.004032	0.008759	0.011454
MW-3 to MW-11	0.003435	0.003239	0.002524

Table 1 – Horizontal gradients calculated between wells. Dates are Month-Year. Positive values depict flow from the first to second well. Negative values depict flow from the second to the first well.

Vertical Gradients (ft/ft)			
	Mar-23	**May-23**	**Sep-23**
MW-4 to MW-4L	-0.08254	-0.09733	-0.14210
MW-4 to MW-18	-0.07778	-0.09514	-0.13890
MW-4L to MW-18	0.40000	0.28000	0.29330
MW-3 to MW-3L	-0.00442	-0.00512	MW-3 Dry
MW-16 to MW-16L	-0.01284	-0.02347	-0.17710

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Table 2 – Vertical gradients calculated as mid-screen gradients. This is to compare the hydrostatic head from the mid length of the screen in each well.

The horizontal gradient calculations show a radial flow away from the MW-2CR mine stope hosted waters. Also, a small divide in the groundwater flow across the hydrogeologic ridge identified in the surface model around MW-4/4L/18 and MW-14. The vertical gradients suggest a recharge vector from the Davenport and Spring Grove Members into the Ottis Member. However, for the MW-4L to MW-18 well pairing, there is an artesian vertical gradient.

4.0 HYDROLOGIC RELATIONSHIPS

The RAMP submitted by Blackstone in May 2022 described two sources of contamination that included the CKD monofill and the mine stope. In order to investigate these sources, a review of the design drawings of the Site's stages of construction and historical information about the mine stope and monofill were reviewed and correlated. This study focused on determining the hydrologic relationship between the mine stope and the CKD monofill.

Review of construction and historical information at Contiental found that the quarry floor of the CKD monofill is approximately 490 feet amsl. However, the quarry floor was encountered at 476 feet amsl by Terracon when they advanced CKD-1 in April of 2011 as shown in the cross-section below. During the Komex International drilling in 1996, the stope roof was encountered at approximately 508 feet amsl and the floor at approximately 485 feet amsl. Meaning both the mine stope and CKD monofill are hosted within the Davenport and Spring Grove Members. From vertical gradient calculations, it was shown that these members have a recharge vector to the Otis Member which is partially confined from artesian conditions deeper in the Member. Additionally, it was shown from horizontal gradient calculations that the waters hosted in the mine stope are at a local high compared to the rest of the monitoring network. This indicates that water in the mine stope may be artificially elevating the water table by both recharging and flowing radially away from the stope.

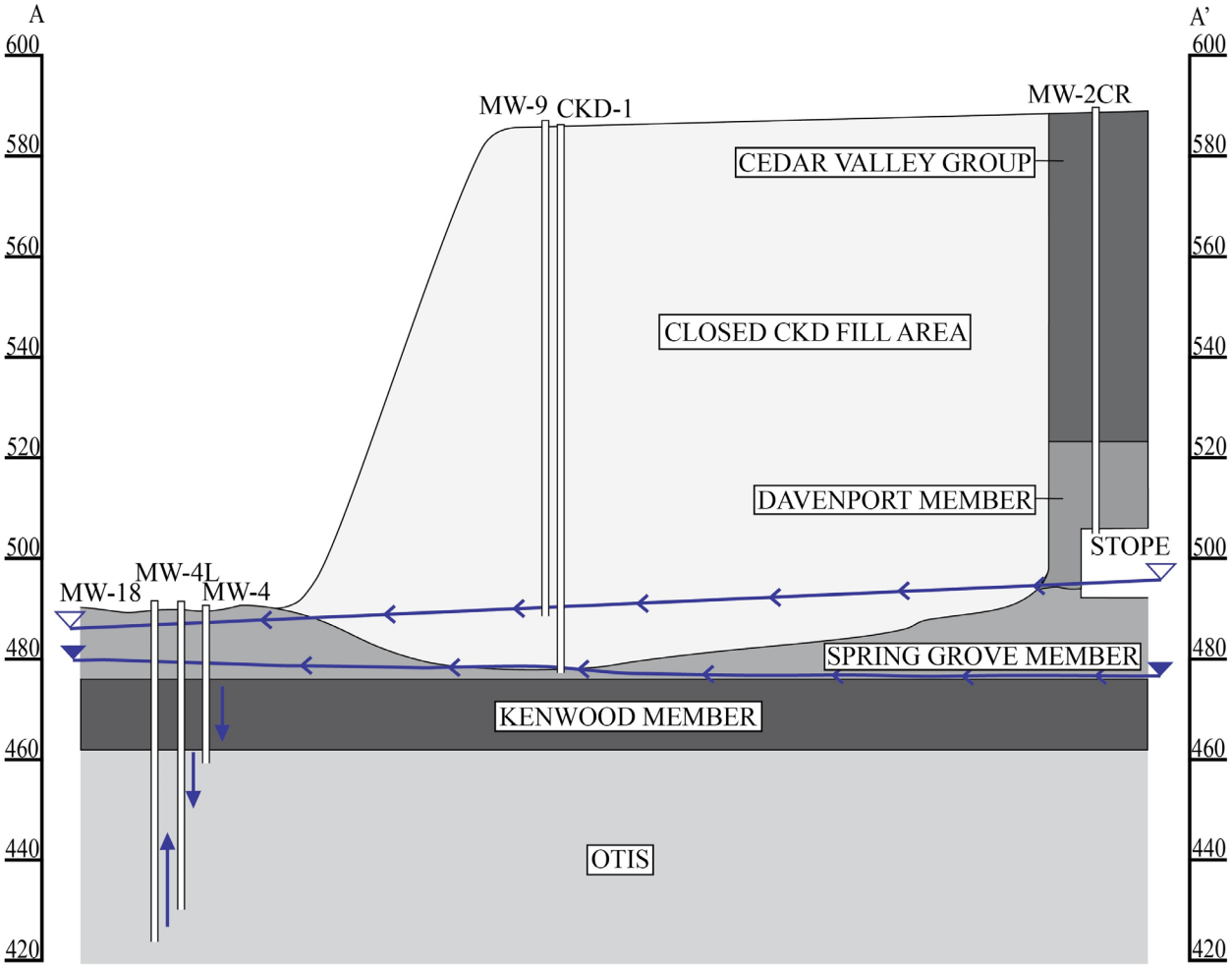


Figure 3 – Redrafted figure from Terracon, 2011, Groundwater Quality Assessment Report. Elevation is in feet amsl. Blue lines represent the historic range of groundwater levels. Arrows represent the vertical and horizontal hydrologic gradients.

Additional groundwater gradient calculations established a hydrological ridge between MW-4/4L/18 and MW-14. This ridge is located down gradient of the active CKD cell and the opposite side of this hydrological ridge is located cross gradient to the closed CKD cells.

4.1 Source Area Discussion – Stope Well and CKD Material

As mentioned in the 2022 RAMP, available data indicates two potential source areas, one centered on stope monitoring well MW-2CR and another along the toe of the monofill in the area of monitoring wells MW-4, MW-4L, MW-18, and MW-11. The following provides additional details regarding the potential source areas.

Monitoring well MW-2CR is located within an undermined (stope) area associated with the neighboring Linwood mine. Liquids from MW-2CR were sampled on October 8, 2021; March 19, 2022; and May 8, 2023. A sediment sample was also recovered using a bailer during the March 19, 2022 and May 8, 2023 monitoring events.

Exceedances of primary MCLs or SWS at sampling point MW-2CR during 2023 sampling events included fluoride, nitrite, nitrate, arsenic, boron, cadmium, cobalt, lead, lithium, manganese, molybdenum, nickel, selenium, vanadium, and thallium. As vertical and horizontal gradient calculations have shown the stope hosted waters are upgradient, this information suggests that select metals may be originating from the stope area.

As the mine stope waters have an established upgradient location and are considered a local high in the water table, it is possible that the quarry floor of the closed CKD monofill becomes partially saturated due to the mine stope. The base of the closed CKD monofill is approximately 490 feet amsl and was encountered by Terracon during an April 2011 CKD sampling event at 476 feet amsl. The surface model generated shows that the water surface intersects these elevations. As such, if water is interacting with the CKD, then the lime salts in the CKD could dissolve and mobilize. The signature of such an event would be marked by basic pHs (pH >9). CKD sampling performed by Terracon in 2011 showed an increase in moisture with respect to depth as they neared the quarry floor. This increase was simultaneous with decreasing concentrations of sodium and chloride, suggesting that salts are being remobilized in this zone of partial saturation. The elevated water table around the mine stope has potentially intersected the quarry floor of the closed southern CKD cell and is potentially remobilizing salts within the CKD material.

Waters within the mine stope were historically strongly acidic (pH<4) and are extremely heated (Komex International, 1996). Temperature within MW-2CR is consistently greater than 30°C and the bedrock well MW-2A is consistently greater than 30°C. However, the measured temperatures of MW-2CR are obtained during periods of exhaust shut down. It is assumed that as Linwood burns various fuel sources that the partial pressure of carbon dioxide is also increased. All of these conditions increase the groundwaters ability to dissolve carbonate materials such as Limestone, Dolomite, CKD, and LKD. Over time, this could have developed preferential pathways into the CKD monofill by dissolving along bedding planes, joints, fractures, voids, and karst features in the carbonate bedrock. Features which are locally common for the Davenport and Spring Grove Members that the mine stope and quarry floor are within. From the historical database for the Site, the pH at MW-4, MW-4L, MW-18, and MW-11 did not become basic until about October 2011. After this point, the pH has remained basic at these monitoring points.

5.0 PROPOSED REMEDIAL INVESTIGATION ACTIVITIES

In the 2022 RAMP, Blackstone proposed to focus on the southwest plume along the toe of the Landfill in the areas of monitoring wells MW-4, MW-4L, MW-18, and MW-11. Should groundwater improvements be inconclusive after a period of initial monitoring and analysis following the leachate system improvements, the following supplemental remedial investigation activities may be implemented.

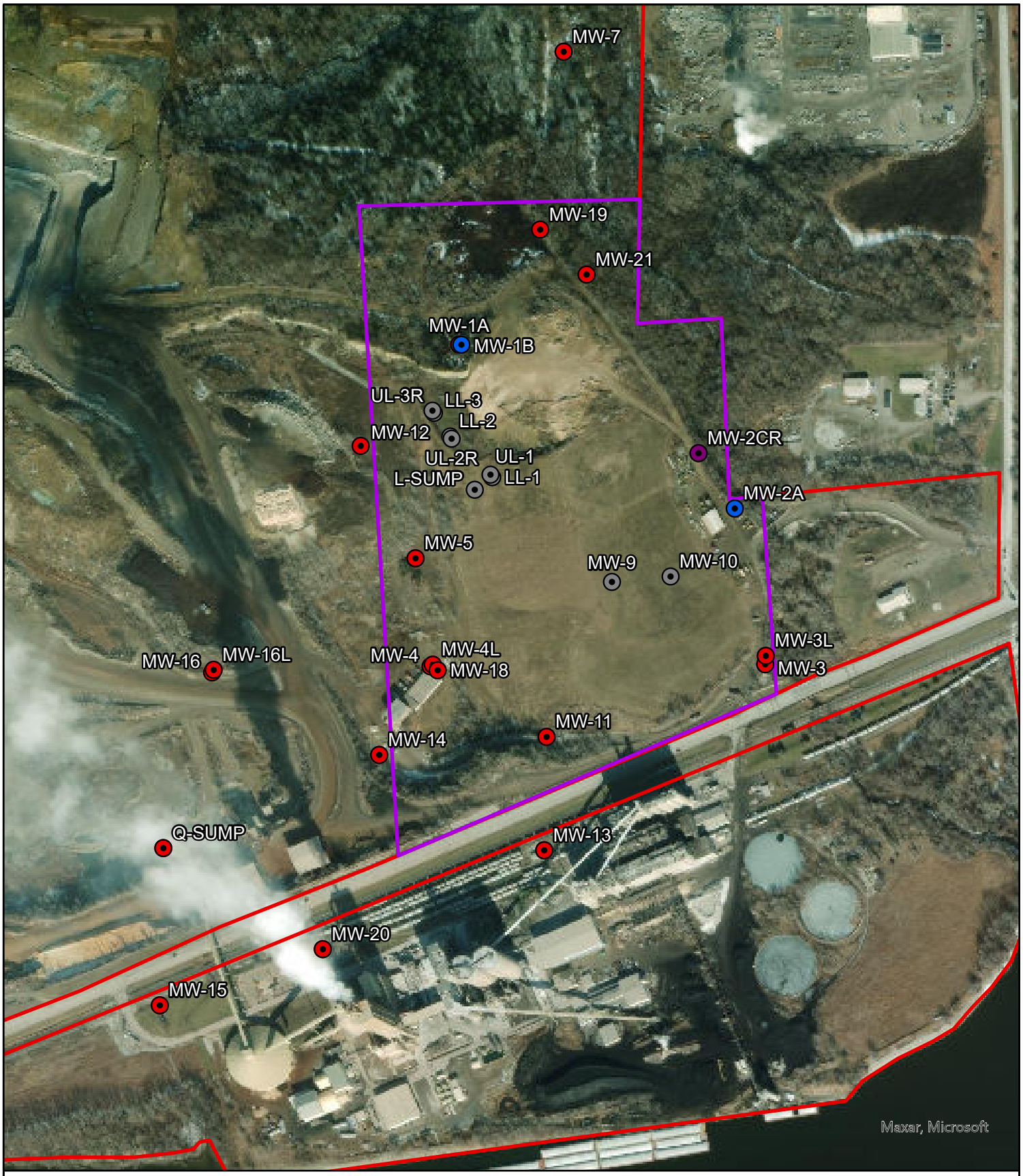
- Representative bedrock core samples may be obtained and analyzed to evaluate metals that are naturally occurring in the bedrock and their potential to mobilize under different geochemical settings.
- Representative CKD samples may be obtained and analyzed to evaluate metals that occur within the CKD and their potential to mobilize under different geochemical settings.
- Continuing sampling of solid and liquid phases within the mine stope via MW-2CR will be conducted during shutdown of the Lindwood kiln exhaust.

6.0 LIMITATIONS

This report was prepared in accordance with that level of skill and care ordinarily exercised by other members of Blackstone's profession practicing in the same locality and under similar conditions when the services were provided. No warranties, express or implied, are intended or made.

FIGURES

Z:\Shared\Clients\Continental Cement\PROJECTS\3066 Landfill Services\WORKING\GIS\Continental



Shallow
Deep
Leachate
Stope
Landfill Boundary
Property Boundary

N

0 500 1,000 Feet

FIGURE 1	Project Mgr. KB	Date: 10/2023	CONTINENTAL CEMENT BUFFALO, IOWA	SHEET NAME: Monitoring Locations PROJECT NAME: Continental Cement Landfill PROJECT LOCATION: 301 East Front Street, Buffalo, Iowa	BLACKSTONE ENVIRONMENTAL
	Designed By: TS	Rev.:			
	Drawn By: TS	Rev.:			
	Checked By: LJ	Rev.:			
	Job No.: 3433	Rev.:			