

2025 Annual Monitoring Report

Lee Crawford Quarry Company
IDNR ID #57-BUD-23-97
5707 F Avenue NW
Cedar Rapids, IA

Prepared For

Lee Crawford Quarry

Project EB93012021
January 26, 2026



January 26, 2026

Project EB93012021

Chad Stobbe
Iowa Department of Natural Resources
502 East 9th Street
Des Moines, IA 50319

Re: 2025 Annual Monitoring
Report Lee Crawford Quarry
IDNR ID#57-BUD-23-97
5707 F Avenue NW
Cedar Rapids, IA

Dear Mr. Stobbe:

EB Solutions, Inc., on behalf of Lee Crawford Quarry, is pleased to submit a copy of the 2025 annual monitoring report for the above referenced site. The objective of the annual monitoring was to summarize information concerning groundwater concentrations and site observations.

If we can be of further assistance or you have any questions, please call us at (319) 249-3293.

Sincerely,
EB Solutions, Inc.

Prepared by:

Edward Bertch

Ed D. Bertch, PG, REM
Senior Geologist

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2025 ANNUAL MONITORING REPORT

LEE CRAWFORD QUARRY

IDNR ID #57-BUD-23-97

5707 F AVENUE NW

CEDAR RAPIDS, IOWA

Project EB93012021

January 26, 2025

1.0 INTRODUCTION

Lee Crawford Quarry started to accept beneficial use material on September 29, 1997. Currently, Lee Crawford Quarry Beneficial Use Determination was approved on January 1, 2018. Lee Crawford Quarry uses the solid by products as fill material in the mine reclamation project on Site.

The facility is currently accepting coal combustion residual from Archer Daniels Midland Company, Cedar Rapids Water Department treatment lime residual, and Cedar Rapids Water Pollution Control Facilities sewage sludge incinerator ash.

Lee Crawford Quarry is in the sixth year of the groundwater monitoring program for the facility. Lee Crawford Quarry has one up-gradient (background) monitoring well (MW3) and four down-gradient monitoring points (MW1, MW2, MW4, and MW5). Lee Crawford Quarry completed sampling in the first quarter and third quarters of each year.

1.1 Scope of Work

EB Solutions, Inc. conducted quarterly groundwater monitoring at Lee Crawford Quarry in 2025 in accordance with Special Conditions section 10 of the Beneficial Use Determination for the Site and Iowa Department of Natural Resources (IDNR) 2021 accepted recommendations. The samples were analyzed with the acceptance by the IDNR to reduce analytical analysis for chemicals that were not detected in the 2019, 2020, 2021, and 2022 sampling events. The sampling was completed on a bi-annual basis.

1.2 Standard of Care

EB Solutions, Inc.'s services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. EB Solutions, Inc. makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that EB Solutions, Inc. does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report.

1.3 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during these monitoring activities. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.4 Reliance

This report has been prepared for the exclusive use of the Lee Crawford Quarry, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of the Lee Crawford Quarry and EB Solutions, Inc. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, monitoring report, and EB Solutions, Inc.'s Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of EB Solutions, Inc.'s liability to the client and all relying parties unless otherwise agreed in writing.

1.5 Site Description

Table A: Site Description

Site Name	Lee Crawford Quarry (Site)
Site Location/Address	5707 F Avenue NW, Cedar Rapids, Linn County, Iowa
General Site Description	The Site consisted of 267.47-acres. Crawford Quarry was started in 1943. The Site has been an open pit mine for 79 years. Crawford Quarry started using solid by-products as fill material on September 29, 1997. They currently have three areas where solid by-products are being used for fill.

A site location map is included as Figure 1, and a site plan is included as Figure 2.

1.6 Site Location and Description

The approximate center of the Site is located at Latitude 41.976231 North and Longitude 91.665250 West. The Site is located within the northwest quarter of the northeast quarter of Section 28, Township 83 North, Range 7 West, in the City of Cedar Rapids, in Linn County, Iowa.

2.0 MONITORING ACTIVITIES

Figure 2 illustrates the location of the monitoring well locations. The following subsections discuss the groundwater sampling in further detail.

2.1 Well Purging

The groundwater in the monitoring wells at the Site was purged using a submersible stainless-steel Geotech portable bladder pump. A one and half foot stainless-steel Geotech portable bladder pump with two new Teflon disposable tubing was installed in each well. The tubing extends to the surface. The airline is connected to a controller and air compressor. The controller regulates the compressed air and timing of the stainless-steel Geotech portable bladder pump. The second Teflon tubing is extended to the surface as a discharge line for purged groundwater from the pump. Each monitoring well was low flow pumped for a minimum of three days. The monitoring wells purge rates were 0.05 to 0.11 gallon per minute.

2.2 Groundwater Sampling

The groundwater in the monitoring wells at the Site was sampled in the first and third quarters of 2025. Each well was pumped at a slow pumping rate with a one and half foot stainless-steel Geotech portable bladder pump with new Teflon disposable tubing installed in each well to the surface. The well was slow pumped for a minimum of three days prior to sampling. The monitoring wells rates from 0.05 to 0.11 gallon per minute. Each monitoring well was sampled when the conductivity, temperature, and pH readings were stabilized.

2.1.1 Groundwater Sample Collection and Handling

Groundwater and blank water samples were collected and handled consistent with standard industry practice and applicable Environmental Protection Agency (EPA) analytical methods. Sample containers were labeled with sample-specific identifiers (e.g., sample ID, date, time, etc.) prior to sample collection, sealed, and immediately placed in designated sample coolers for laboratory submission. Groundwater samples were non-filtered.

Signed chain-of-custody documentation accompanied the sample coolers at all times.

Table B outlines the sample containers specific to each laboratory method and summarizes associated preservation and storage parameters used for this assessment.

Table B: Groundwater Analytical Method and Sample Storage

Analysis	Analytical Method	Container/Storage	Preservative	Holding Time
VOCs (Methyl Ethyl Ketone (2-Butanone))	EPA-8260C	3 x 40 ml glass VOA; fill to zero headspace; cool to 4° Celsius	HCl	14 days
Total Metals (Aluminum, Antimony, Arsenic, Barium, Boron, Cadmium, Cobalt, Iron, Manganese, and Zinc)	EPA-6020A	1 x 250 ml HPDE plastic; cool to 4° Celsius 1 x 250 ml HPDE plastic; cool to 4° Celsius	HNO3 None	180 days
Total Inorganics (Chloride, Fluoride, and Sulfate)	EPA-9056A	1 x 250 ml HPDE plastic; cool to 4° Celsius	None	28 days
Formaldehyde	EPA-8315A	1 x 250 ml amber glass; cool to 4° Celsius	None	30 days
Chemical Oxygen Demand	EPA-5220D	1 x 250 ml HPDE plastic; cool to 4° Celsius	H2SO4	28 days
Ammonia Nitrogen	EPA-350.1	1 x 250 ml HPDE plastic; cool to 4° Celsius	H2SO4	28 days
Total Organic Halogen	EPA-9020B	1 x 500 ml amber glass; cool to 4° Celsius	H2SO4	None
Phenols	EPA-9066	1 x 500 ml amber glass; cool to 4° Celsius	H2SO4	28 days
Total Suspended Solids	I_3765_85	1 x liter HPDE plastic; cool to 4° Celsius	None	7 days

2.1.2 Groundwater Samples

Prior to purging and sampling of the monitoring wells, the wells were gauged to measure depth to groundwater relative to the well top of casing.

Groundwater samples were collected using low-flow sampling methods. Groundwater was brought to the surface using dedicated Teflon tubing in connection with a Geotech portable bladder pump (second and third

Quarters). Prior to sampling, each casing was purged at a flow rate of 0.05 to 0.11 gallon per minute with appropriate water parameter measurements recorded generally following removal of each PVC casing volume. The monitoring well volume was maintained at 80 percent of the original observed groundwater horizon prior to sampling.

Groundwater samples were collected after three consecutive field readings generally within the following ranges:

- ± 0.1 for pH,
- ± 5% for conductivity, and
- ± 10% for temperature

Following stabilization of parameters (or volumetric approach), groundwater samples were collected. Sample containers included appropriate preservatives and were placed on ice in the designated sample cooler immediately following collection.

2.1.2 Trip Blank Water Samples

We prepared trip blanks during sampling in the field. The trip blanks were shipped to the laboratory in the first and third quarter sampling events for the volatile constituent analysis.

There was no identified detection of volatile constituents above laboratory detection limits in the trip blanks.

2.3 Hydrogeology

Based on the 2025 groundwater level measurements for the Site in second and third quarters, the localized groundwater flow direction is toward to the quarry holding ponds. The area groundwater flows to the northwest. This is toward Morgan Creek and the Cedar River. Groundwater flow direction maps are included as Figure 3a and b.

3.0 DATA EVALUATION

3.1 Groundwater Samples

Groundwater concentrations above laboratory method detection limits are reported in Table I through V. Constituents that have been detected in groundwater samples from 2022, 2023, 2024, and 2025 above laboratory method detection limits are aluminum, ammonia, antimony, arsenic, barium, boron, cadmium,

chloride, cobalt, fluoride, formaldehyde, iron, manganese, methyl ethyl ketone, molybdenum, phenols, sulfate, and zinc.

3.1 Summary of Analytical Data

Groundwater protection standards are listed in Table I below.

Table I: Groundwater Protection Standards

Constituent	Groundwater Protection Standard (mg/L)	Source
Aluminum	0.2	SMCL ¹
Ammonia	30	SWS ²
Antimony	0.006	MCL ³
Arsenic	0.01	MCL
Barium	2	MCL
Boron	6	SWS
Cadmium	0.005	MCL
Chloride	250	SMCL
Cobalt	0.0021	SWS
Fluoride	2	SMCL
Formaldehyde	1	SWS
Iron	0.3	SMCL
Manganese	0.3	SWS
MEK⁴	4	SWS
Molybdenum	0.04	SWS
Phenols	2	SWS
Sulfate	250	SMCL
Zinc	2	SWS

1 - Secondary Maximum Contaminant Level
 2 - Iowa Statewide Standard
 3 - Maximum Contaminant Level
 4 - Methyl Ethyl Ketone

There were no groundwater concentrations above MCLs, SMCL, and SWS, except for sulfate in monitoring well-MW1 is above the SMCL and SWS cobalt standard in monitoring well-MW2 (March 18, 2022) and MW5 (March 11, 2024).

Concentrations of aluminum in monitoring well MW1, MW3, MW4, and MW5 were not detected above method detection limits in 2022, 2023, 2024, and 2025, except for in MW3 (February 17, 2025).

Identified concentration of aluminum in monitoring well MW3 on February 17, 2025 was below SMCL for groundwater (40 CFR Part 141).

The concentrations of ammonia nitrogen in monitoring wells MW1, MW2, MW3, and MW4 were not detected above method detection limits in 2022, 2023, 2024, and 2025.

Identified concentrations of ammonia nitrogen in monitoring well MW5 were below IDNR statewide standards for groundwater (567 IAC 137).

The concentrations of antimony in monitoring wells MW1, MW2, MW3, MW4, and MW5 were not detected above method detection limits in 2022, 2023, 2024, and 2024.

The concentrations of arsenic in monitoring wells MW1, MW2, MW3, MW4, and MW5 were not detected above method detection limits in 2022, 2023, 2024, and 2025.

Identified concentrations of barium in monitoring well MW1, MW2, MW3, MW4, and MW5 were below the 40 CFR Part 141 MCL.

Identified concentrations of boron in monitoring wells MW1, MW2, MW3, MW4, and MW5 were below IDNR statewide standards for groundwater (567 IAC 137).

The concentration of cadmium in monitoring wells MW1, MW2, MW3, MW4, and MW5 were not detected above method detection limits in 2022, 2023, 2024, and 2025.

Identified concentrations of chloride in monitoring wells MW1, MW2, MW3, MW4, and MW5 were below the 40 CFR Part 141 SMCL.

Identified concentrations of cobalt in monitoring wells MW1, MW2, MW3, and MW4 were below IDNR statewide standards for groundwater (567 IAC 137) in 2022, 2023, 2024, and 2025.

Identified concentrations of cobalt in monitoring well MW5 was below IDNR statewide standards for groundwater (567 IAC 137) in 2022, 2023, and 2025.

Identified concentrations of cobalt in monitoring well MW 5 was above IDNR statewide standards for groundwater (567 IAC 137) in the spring of 2024, but returned to below IDNR statewide standards for groundwater (567 IAC 137) in the fall of 2024.

Identified concentrations of fluoride in monitoring wells MW1, MW2, MW3, MW4, and MW5 were below the 40 CFR Part 141 SMCL.

Concentrations of formaldehyde in monitoring wells MW2, MW4, and MW5 were not detected above method detection limits.

Identified concentrations of formaldehyde in monitoring wells MW1 and MW3 were below IDNR statewide standards for groundwater (567 IAC 137).

Concentrations of iron in monitoring wells MW1, MW2, MW3, MW5 were not detected above method detection limits in 2022, 2023, 2024, and 2025.

Identified concentration of iron in monitoring well MW4 from the spring of 2025 was below the 40 CFR Part 141 SMCL.

Identified concentrations of manganese in monitoring wells MW1, MW2, MW3, MW4, and MW5 were below IDNR statewide standards for groundwater (567 IAC 137).

Concentrations of methyl ethyl ketone in monitoring well MW1, MW2, MW3, MW4, and MW5 were not detected above method detection limits in 2022, 2023, 2024, and 2025.

Identified concentrations of molybdenum in monitoring wells MW1, MW2, MW3, MW4, and MW5 were

below IDNR statewide standards for groundwater (567 IAC 137) in 2022, 2023, 2024, and 2025.

The concentration of phenols (total) in monitoring wells MW1, MW2, MW3, MW4, and MW5 were below method detection limits in 2022, 2023, 2024, and 2025.

Identified concentrations of sulfate in monitoring wells MW2, MW3, MW4, and MW5 were below the 40 CFR Part 141 SMCL.

Identified concentrations of sulfate in monitoring well-MW1 were above the 40 CFR Part 141 SMCL in 2022, 2023, 2024, and 2025.

Identified concentrations of zinc in monitoring wells MW1, MW2, MW3, MW4, and MW5 were below IDNR statewide standards for groundwater (567 IAC 137) in 2022, 2023, 2024, and 2025.

4.0 STATISTICAL ANALYSIS

Groundwater samples were collected and analysis in 2022, 2023, 2024, and 2025. We use the 2022 and 2023 analytical results to establish background concentrations in accordance with Special Condition #10df. We use the 2025 analytical results to evaluate the groundwater results in accordance with Special Condition #10df.

The monitoring statistical programs include diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- a. Time Series Plots
- b. Shapiro-Wilk test for normality
- c. Dixon's Test for Outliers
- d. Rosner's Test for Outliers
- e. Discordance Outlier Test
- f. Mann-Kendall Test for Trend
- g. Sen's Slope Analysis for Trend

Management of Non-Detect Data

Non-detection values in the dataset were managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data have non-detection values, simple substitution was used, where non-detection values will be assigned a concentration of one-half of the potential quantification limit (PQL). If greater than 15% but less than 50% of the data have non-detection values, the Kaplan-Meier estimator was used to define the distribution of the dataset. If non-detection values comprised greater than 50% of the available data, non-parametric statistical methods were used.

Table II: Non-Detection Percentages

Constituent	MW1 ND Percent	MW2 ND Percent	MW3 ND Percent	MW4 ND Percent	MW5 ND Percent	PQL mg/L
Aluminum	100	100	87.5	100	100	0.3
Ammonia	100	100	100	100	62.5	3.0
Antimony	100	100	100	100	100	0.006
Arsenic	100	100	100	100	100	0.012
Barium	0	0	0	0	0	0.012
Boron	0	87.5	100	100	0	1.2
Cadmium	100	100	100	100	100	0.0006
Chloride	12.5	50	0	87.5	100	30
Cobalt	87.5	62.5	87.5	62.5	75	0.003
Fluoride	100	87.5	87.5	100	75	3.0
Formaldehyde	87.5	100	87.5	100	100	60
Iron	100	100	100	87.5	100	0.6
Manganese	0	0	87.5	0	0	0.06
MEK	100	100	100	100	100	60
Molybdenum	50	37.5	0	12.5	87.5	0.012
Phenols	100	100	100	100	100	0.12
Sulfate	0	0	0	0	0	60
Halogens	62.5	62.5	50	62.5	87.5	0.18
Zinc	100	100	100	100	100	0.12

Management of Outliers

Background datasets were evaluated for outliers using Dixon's or Rosner's, as appropriate based on the diagnostic tests, for the datasets containing less than 75% of the measured concentrations below the PQL. Outliers were not confirmed unless a physical cause or explanation for the outlier was determined.

Management of Data (ND data < 75%)

If less than 75% of the background dataset was below the PQL, outliers were statistically evaluated using the following guidelines.

- A parametric dataset with $n < 20$ will be evaluated with the Dixon's outlier test.
- A parametric dataset with n greater or equal to 20 will be evaluated with the Rosner's outlier test.

Management of Data (ND data > or equal to 75%)

If greater than or equal to 75% of the background dataset was less than the PQL, outliers were statistically evaluated using the following guidelines.

- Single detection greater than or equal to the PQL.
 - If greater than or equal to 50% of the background dataset has detections greater than or equal to the method detection limit (MDL), any value greater than or equal to two times the PQL of background was considered an outlier.
 - If less than 50% of the background dataset has detections greater than or equal to the MDL, any value greater than or equal to the PQL of the background was considered an outlier.
- Two or more detections greater than or equal the PQL.
 - If greater than 50% of the background dataset has detections greater than or equal to the MDL, any value greater than or equal to three times the PQL of the background was considered an outlier.
 - If less than 50% of the background dataset had detections greater than or equal to the MDL, any value greater than or equal to two times the PQL of the background was considered an outlier.

Below in Table III is a summary for each detected constituent in each well for outliers by the criteria above.

Table III: Outliers

Constituent	MW1	MW2	MW3	MW4	MW5
Aluminum	None	None	None	None	None
Ammonia	None	None	None	None	None
Antimony	None	None	None	None	None
Arsenic	None	None	None	None	None
Barium	None	None	None	None	None
Boron	None	None	None	None	None
Cadmium	None	None	None	None	None
Chloride	None	None	None	None	None
Cobalt	None	3/18/22-0.00254mg/L	None	None	None
Fluoride	None	None	None	None	None
Formaldehyde	None	None	None	None	None
Iron	None	None	None	None	None
Manganese	None	None	None	None	None
MEK	None	None	None	None	None
Molybdenum	None	None	None	None	None
Phenols	None	None	None	None	None
Sulfate	None	None	None	7/23/2024-234mg/L	None
Halogens	2/4/2025-0.185mg/L	None	None	None	9/30/22-0.757mg/L
Zinc	None	None	None	None	None

Identified concentrations of cobalt in monitoring well MW2 in the first quarter of 2022 was determined to be an outlier.

Identified concentration of sulfate in monitoring wells MW4 in the third quarter of 2024 was determined to be an outlier.

Identified concentration of halogens in monitoring wells MW1 in the first quarter of 2025 was determined to be an outlier.

Identified concentration of halogens in monitoring wells MW5 in the third quarter of 2022 was determined to be an outlier.

Shapiro-Wilk Test for Normality

The Shapiro-Wilk test was used to investigate the null hypothesis for each well results to examine if the results are normally distributed. The Shapiro-Wilk test results at a 99 percent level of significance for each identified constituent at each monitoring wells that had detects was used to determine if the results are parametric (normal) or non-parametric. The results are summarized in Table IV below.

Table IV: Shapiro-Wilk Test Results

Constituent	MW1	MW2	MW3	MW4	MW5
Aluminum			Non-parametric		
Ammonia					Non-parametric
Antimony					
Arsenic					
Barium	Parametric	Parametric	Parametric	Parametric	Parametric
Boron	Parametric	Non-parametric			Parametric
Cadmium					
Chloride	Parametric	Non-parametric	Parametric	Non-parametric	
Cobalt	Non-parametric	Non-parametric	Non-parametric	Non-parametric	Non-parametric
Fluoride		Non-parametric	Non-parametric		Non-Parametric
Formaldehyde	Non-parametric		Non-parametric		
Iron				Non-parametric	
Manganese	Parametric	Parametric	Non-parametric	Parametric	Parametric
MEK					
Molybdenum	Non-parametric	Non-parametric	Parametric	Parametric	Non-parametric
Phenols					
Sulfate	Parametric	Parametric	Parametric	Non-parametric	Parametric
Halogens	Non-parametric	Non-parametric	Parametric	Parametric	Non-parametric
Zinc					

Mann-Kendall Test for Trend

The Mann-Kendall test was used to investigate trends in the monitoring wells data for increasing, decreasing,

or no trends. The Mann-Kendall test for each identified constituent at each monitoring well that had detects are summarized in Table V below.

Table V: Mann-Kendall Test Trends

Constituent	MW1	MW2	MW3	MW4	MW5
Aluminum			No Trend		
Ammonia					No Trend
Antimony					
Arsenic					
Barium	Decreasing	Increasing	No Trend	No Trend	No Trend
Boron	No Trend	No Trend			No Trend
Cadmium					
Chloride	No Trend	No Trend	No Trend	No Trend	
Cobalt	No Trend	No Trend	No Trend	No Trend	No Trend
Fluoride		No Trend	No Trend		No Trend
Formaldehyde	No Trend		No Trend		
Iron				No Trend	
Manganese	No Trend	No Trend	No Trend	No Trend	No Trend
MEK					
Molybdenum	No Trend	No Trend	No Trend	No Trend	No Trend
Phenols					
Sulfate	No Trend	No Trend	Increasing	No Trend	No Trend
Halogens	No Trend	No Trend	No Trend	No Trend	No Trend
Zinc					

There is a decreasing trend for barium in monitoring wells MW1.

There is an Increasing trend for barium in monitoring wells MW2.

There is an increasing trend for sulfate in monitoring wells MW3.

Statistically Significant Trends

Based on the above Shapiro-Wilk test results, the following intra-well comparison was used to determine if

there is a statistically significant trend for each constituent at each well.

- Parametric (normal distribution) data were evaluated for statistically significant trends by United States Environmental Protection Agency (EPA) Unified Guidance formula two-sided intra-well comparison at a 99 percent confidence level.
- Non-parametric data were evaluated for statistically significant trends by United States EPA 1989 Guidance non-parametric 99 percent confidence interval.

Below in Table VI are the results to see if there is statistically significant trend for each constituent at a monitoring well.

Table VI: Statistically Significant Trends

Constituent	MW1	MW2	MW3	MW4	MW5
Aluminum			No Significant		
Ammonia					No Significant
Antimony					
Arsenic					
Barium	No Significant	No Significant	No Significant	No Significant	No Significant
Boron	No Significant	No Significant			No Significant
Cadmium					
Chloride	No Significant	No Significant	No Significant	No Significant	
Cobalt	No Significant	No Significant	No Significant	No Significant	No Significant
Fluoride		No Significant	No Significant		No Significant
Formaldehyde	No Significant		No Significant		
Iron				No Significant	
Manganese	No Significant	No Significant	No Significant	No Significant	No Significant
MEK					
Molybdenum	No Significant	No Significant	No Significant	No Significant	No Significant
Phenols					

Table VI: Statistically Significant Trends-Continued

Constituent	MW1	MW2	MW3	MW4	MW5
Sulfate	No Significant	No Significant	No Significant	No Significant	No Significant
Halogens	No Significant	No Significant	No Significant	No Significant	No Significant
Zinc					

Based on the results, there are no identifiable statistically significant trends for the constituents in the monitoring wells at the Site.

5.0 FINDINGS

The findings of this investigation are as follows:

- There were no groundwater concentrations above MCLs, SMCL, and SWS, except for sulfate in monitoring well-MW1 above SMCL and cobalt in monitoring wells-MW2 and MW5 above SWS.

Based on the results, there are no identifiable statistically significant trends for the constituents in the monitoring wells at the Site.

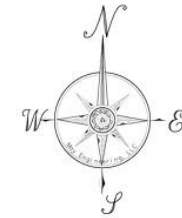
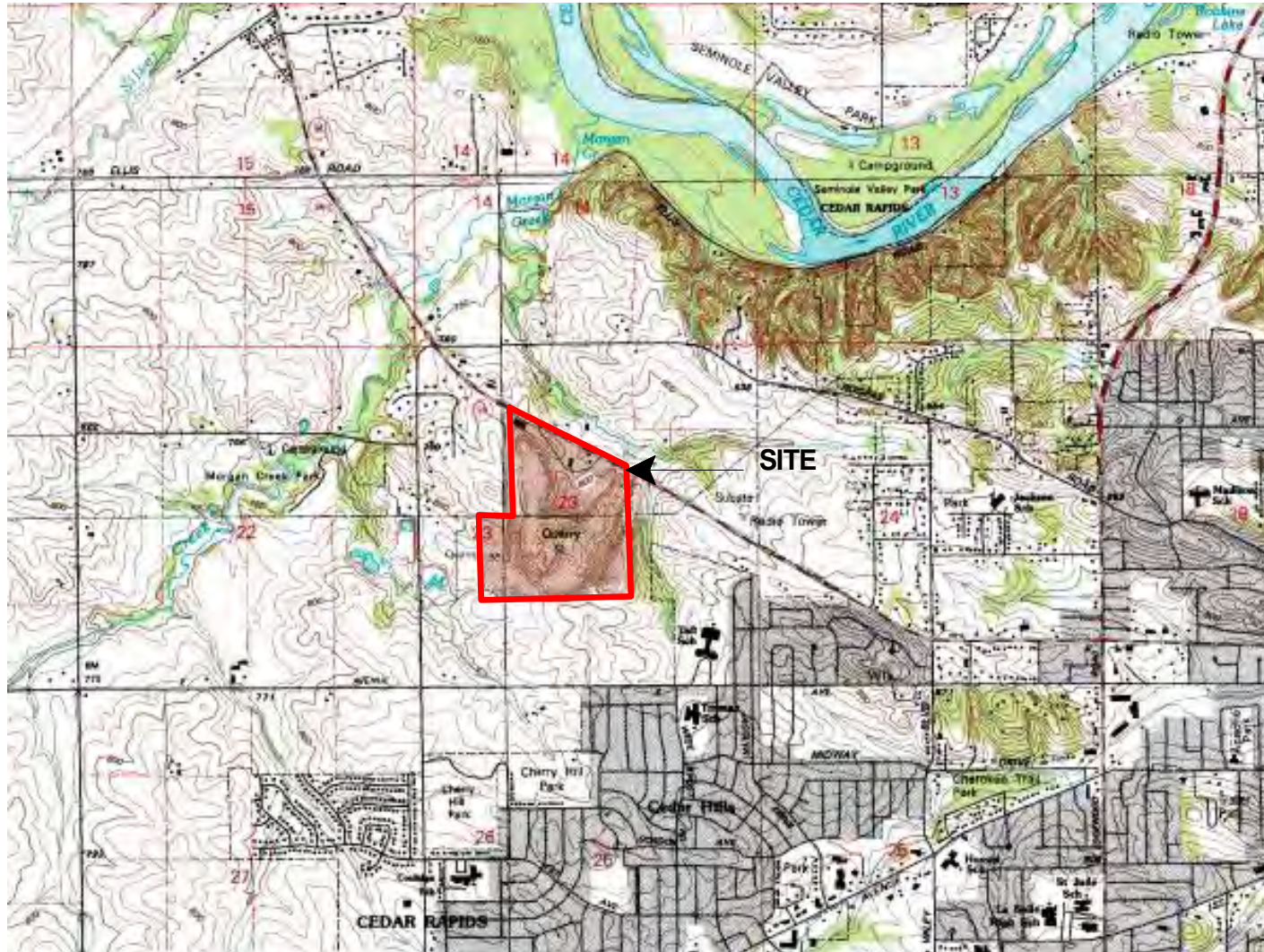
6.0 RECOMMENDATIONS

Based on the analytical data, we have the following recommendations.

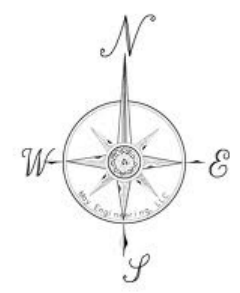
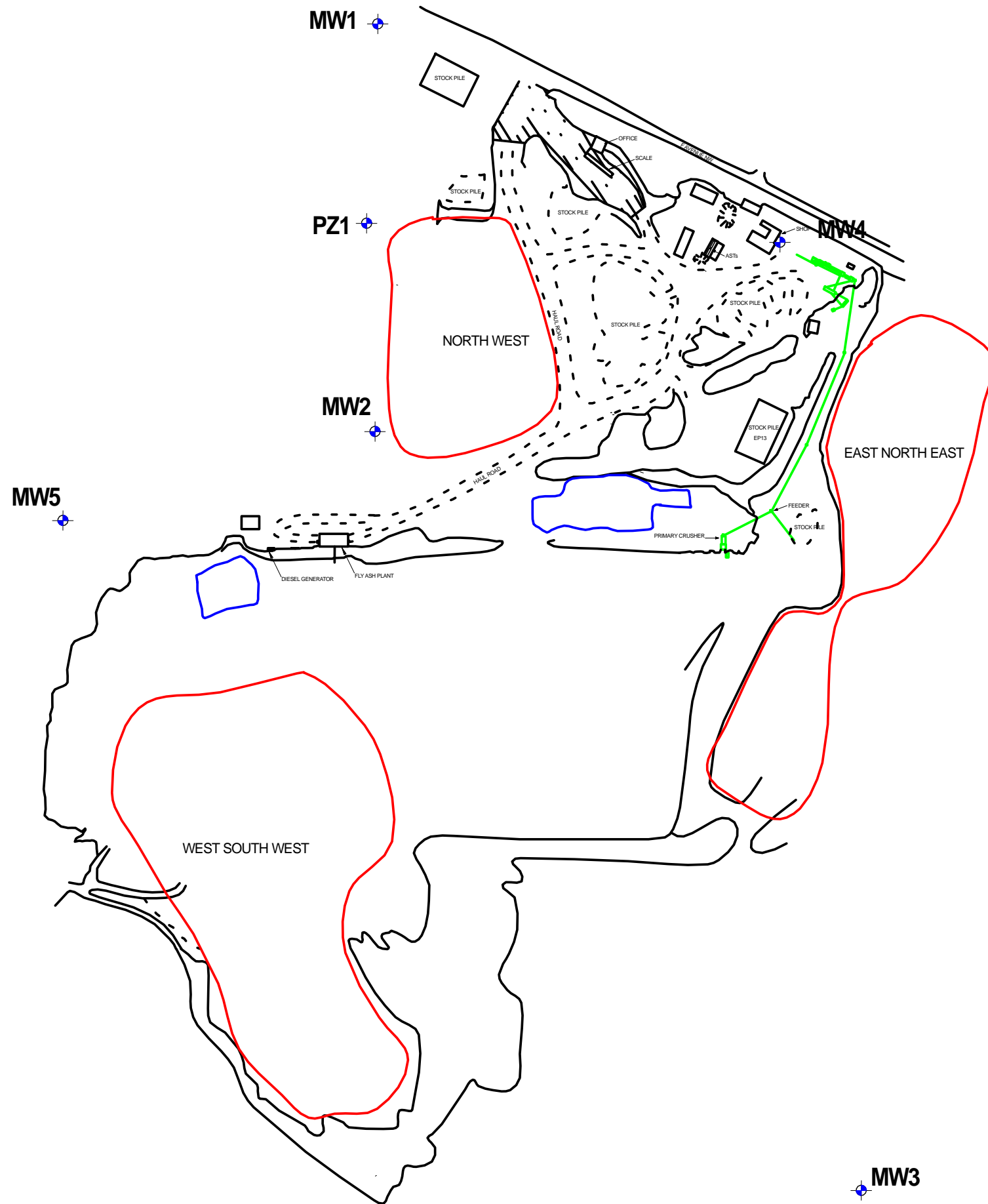
- Since analytical concentrations are below MCLs, statewide standards, and there are no statistically significant trends of regulated contaminants, we recommend continuing bi-annual sampling for future sampling events.

Figures

- Figure 1: Site Location Map**
- Figure 2: Site Plan Map**
- Figure 3: Groundwater Flow Direction Map 2025 First Quarter & 2025 Third Quarter**

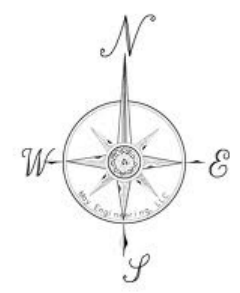
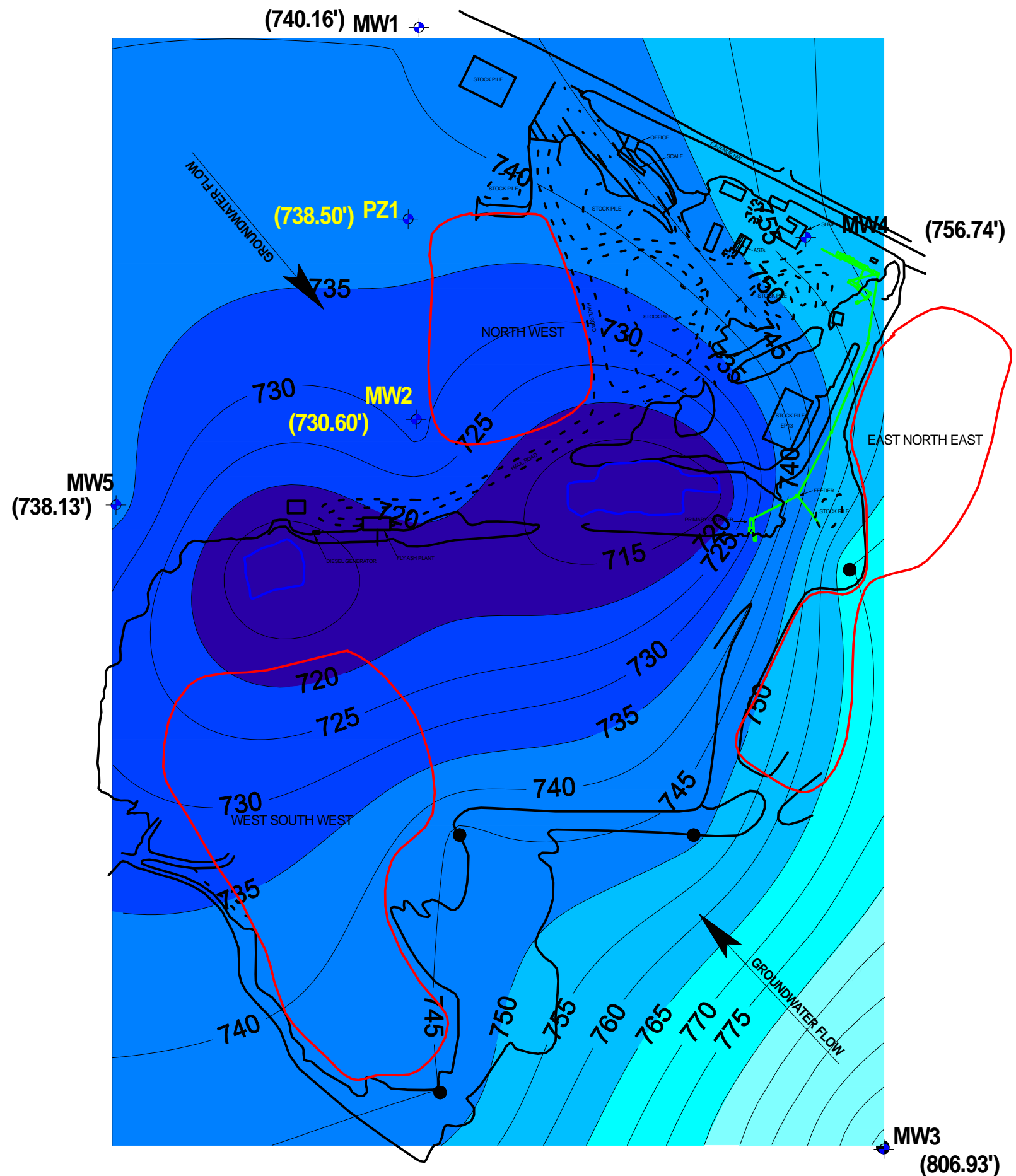


Title: FIGURE 1- SITE LOCATION MAP	
	1931E Avenue NW Cedar Rapids, IA 52405 Phone: (319) 531-8487
	Project: CRAWFORD QUARRY 5707 F AVENUE NW CEDAR RAPIDS, IA
Scale: 1 inch = 3,000 feet	Date: 3/7/2023
Drawn By: EDB	EB93012021



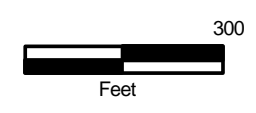
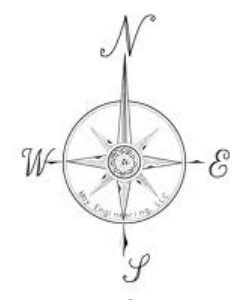
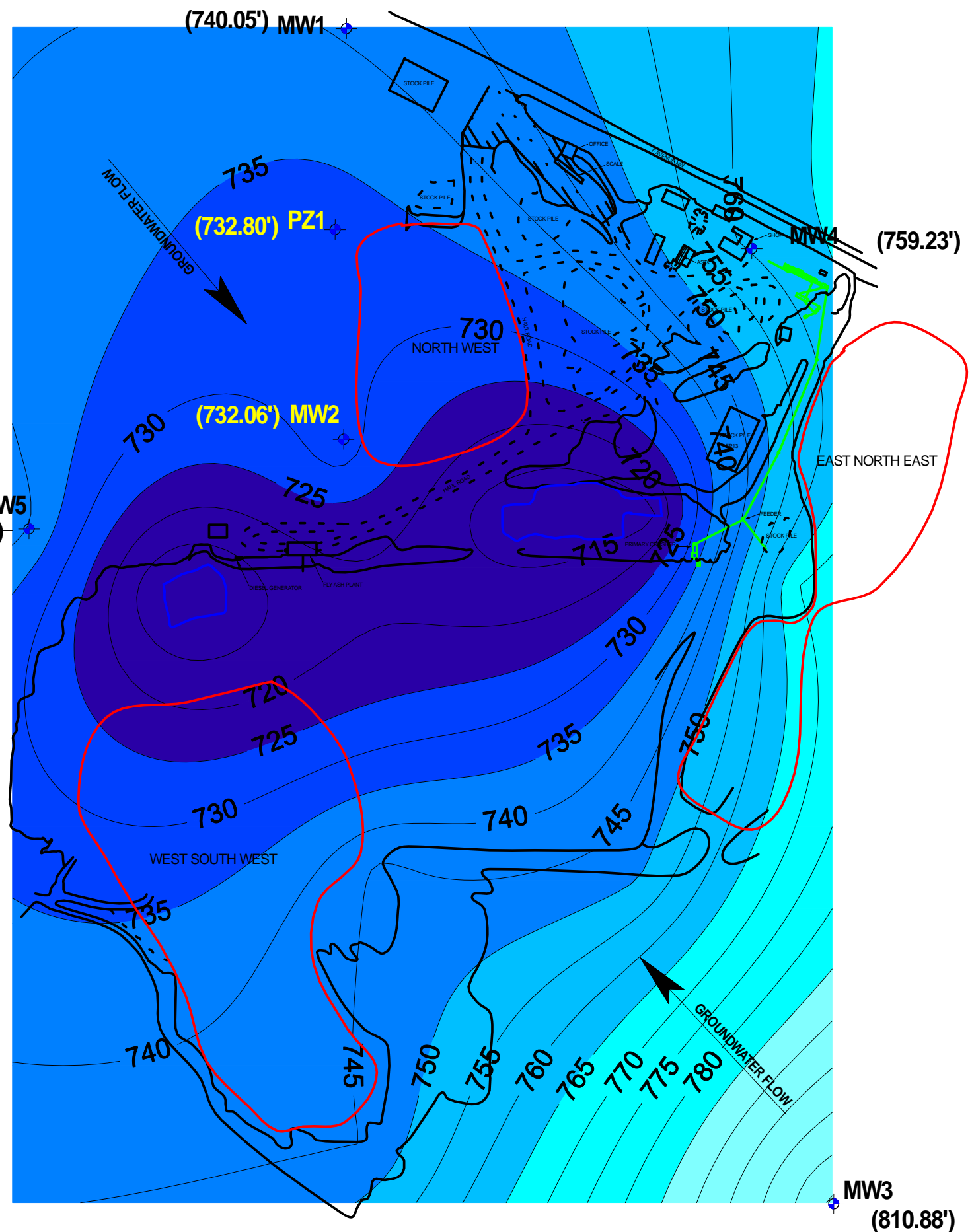
- Legend**
- UNPAVED ROADWAY
 - PAVED ROADWAY
 - MONITORING WELL
 - BUD DISPOSAL AREAS
 - (754.65') GROUNDWATER ELEVATION

Title: SITE SKETCH	
	5060 4TH STREET SW CEDAR RAPIDS, IA 52404 Phone: (319) 249-3293
Project: CRAWFORD QUARRY 5707 F AVENUE NW CEDAR RAPIDS, IA	
Scale: 1 INCH = 300 FEET	Date: 1/26/2026
Drawn By: EDB	Project No.: EB93012021





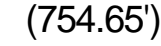


- Legend**
- UNPAVED ROADWAY
 - PAVED ROADWAY
 - MONITORING WELL
 - BUD DISPOSAL AREAS
 - (754.65') GROUNDWATER ELEVATION

Title: GROUNDWATER FIRST QUARTER (FEBRUARY 2025)	
	5060 4TH STREET SW CEDAR RAPIDS, IA 52404 Phone: (319) 249-3293
Project: CRAWFORD QUARRY 5707 F AVENUE NW CEDAR RAPIDS, IA	
Scale: 1 INCH = 300 FEET	Date: 1/26/2026
Drawn By: EDB	Project No.: EB93012021



Legend

-  UNPAVED ROADWAY
-  PAVED ROADWAY
-  MONITORING WELL
-  BUD DISPOSAL AREAS
-  (754.65') GROUNDWATER ELEVATION

Title: GROUNDWATER THIRD QUARTER (JULY 2025)	
	5060 4TH STREET SW CEDAR RAPIDS, IA 52404 Phone: (319) 249-3293
Project: CRAWFORD QUARRY 5707 F AVENUE NW CEDAR RAPIDS, IA	
Scale: 1 INCH = 300 FEET	Date: 1/26/2026
Drawn By: EDB	Project No.: EB93012021

Tables

Table I-V: Monitoring Results for Each Well

Crawford-MW1

Location ID: MW1										
Number of Sampling Dates: 8										
Parameter Name	Replicate Code	Units	3/11/2022	9/12/2022	4/11/2023	9/29/2023	3/4/2024	7/29/2024	2/4/2025	7/10/2025
Aluminum, total		mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ammonia Nitrogen		mg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Antimony		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Arsenic		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium		mg/l	0.0236	0.0231	0.0233	0.0207	0.021	0.0203	0.021	0.0179
Boron		mg/l	0.168	0.135	0.117	0.17	0.127	0.12	0.128	0.144
Cadmium		mg/l	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chemical Oxygen Demand		mg/l	<25	<25	403	<25	<25	39.8	<25	<25
Chloride		mg/l	6.25	6.86	<5	6.38	6.53	5.97	6.33	6.02
Cobalt		mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.000752	<0.0005	<0.0005
Dissolved Oxygen		mg/l	14.28	11.65	1.9	0.39	14.74	5.83	0	4.76
Fluoride		mg/l	<0.5	<0.5	<1	<1	<1	<1	<1	<1
Formaldehyde		ug/l	<10	12	<10	<10	<10	<10	<10	<20
Iron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese		mg/l	0.0829	0.085	0.0821	0.0753	0.0808	0.0757	0.0781	0.0934
Methyl Ethyl Ketone (MEK) (2-Butanone)		ug/l	<10	<10	<10	<10	<10	<10	<10	<10
Molybdenum		mg/l	<0.002	0.0021	0.00203	0.00264	<0.002	0.00233	<0.002	<0.002
Oxidation Reduction Potential		mV	40.3	85.6	231.5	284.3	115.6	21.6	176.1	43.3
pH (field)		S.U.	6.58	6.75	7.1	6.64	7.46	8.37	7.15	7.94
Phenols, total		mg/l	<0.02	<0.02	<0.0204	<0.0216	<0.02	<0.02	<0.02	<0.02
Specific Conductivity, Field		uS/cm	1.504	1.745	1.403	1.348	1.44	1.657	1.67	1.667
Sulfate		mg/l	976	928	924	927	1050	1010	950	943
Temperature		deg C	8.65	13.99	12.56	14.54	11.13	15.72	13.96	18.21
Total Organic Halogens, Halides		mg/l	<0.04	0.0492	<0.04	<0.04	<0.04	0.0458	0.185	<0.06
Total Suspended Solids		mg/l	<5	<1.88	9.38	<1.88	<5	<1.88	<5	<1.88
Water		ft	62.55	78.15	61.16	68.95	63.58	51.91	63.54	63.65
Zinc		mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Crawford-MW2

Location ID: MW2										
Number of Sampling Dates: 8										
Parameter Name	Replicate Code	Units	3/18/2022	9/16/2022	4/25/2023	9/25/2023	3/18/2024	8/5/2024	2/10/2025	7/17/2025
Aluminum, total		mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ammonia Nitrogen		mg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Antimony		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Arsenic		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium		mg/l	0.072	0.0582	0.0727	0.118	0.11	0.118	0.114	0.128
Boron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.143	<0.1
Cadmium		mg/l	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chemical Oxygen Demand		mg/l	<25	<25	33.3	<25	<25	<25	<25	25.9
Chloride		mg/l	<5	<5	<5	5.99	<5	7.68	5.39	5.07
Cobalt		mg/l	0.00254	0.000769	0.00109	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Oxygen		mg/l	7.72	7.37	2.4	0.76	11.64	7.04	0	2.34
Fluoride		mg/l	<0.5	0.713	<1	<1	<1	<1	<1	<1
Formaldehyde		ug/l	<10	<10	<10	<20	<10	<10	<10	<20
Iron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese		mg/l	0.205	0.0601	0.088	0.0237	0.0115	0.0692	0.0546	0.0482
Methyl Ethyl Ketone (MEK) (2-Butanone)		ug/l	<10	<10	<10	<10	<10	<10	<10	<10
Molybdenum		mg/l	0.0024	0.00318	0.00458	0.00225	<0.002	0.00202	<0.002	<0.002
Oxidation Reduction Potential		mV	222.3	74.9	80.2	269.7	108.5	66.4	257.7	89.2
pH (field)		S.U.	6.43	7.65	7.89	7.09	6.95	8.04	7.24	8.12
Phenols, total		mg/l	<0.0184	<0.02	<0.02	<0.02	<0.02	<0.02	<0.0188	<0.02
Specific Conductivity, Field		uS/cm	0.565	0.526	0.409	<0	0.395	0.517	0.49	0.531
Sulfate		mg/l	20.1	14.4	16.5	14.3	14.4	19	13.3	12.3
Temperature		deg C	10.54	15.82	11.16	18.31	9.09	18.31	9.97	17.27
Total Organic Halogens, Halides		mg/l	<0.04	0.119	<0.04	<0.04	<0.04	0.0411	0.0971	<0.06
Total Suspended Solids		mg/l	<1.88	3.13	5.63	<1.88	2.25	<1.88	<1.88	<1.88
Water		ft	110.11	110.25	109.44	115.09	110.21	108.66	108.86	107.4
Zinc		mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Crawford-MW3

Location ID: MW3										
Number of Sampling Dates: 8										
Parameter Name	Replicate Code	Units	4/8/2022	9/26/2022	5/9/2023	9/1/2023	2/27/2024	8/12/2024	2/17/2025	8/12/2025
Aluminum, total		mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.111	<0.05
Ammonia Nitrogen		mg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Antimony		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Arsenic		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium		mg/l	0.295	0.282	0.32	0.325	0.267	0.32	0.309	0.32
Boron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium		mg/l	<0.0001	<0.0001	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002
Chemical Oxygen Demand		mg/l	<25	<25	29.1	<25	99.2	<25	<25	<25
Chloride		mg/l	60.4	61.4	136	107	141	114	110	117
Cobalt		mg/l	<0.0005	<0.0005	0.000731	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dissolved Oxygen		mg/l	8.67	4.5	1.29	1.3	9.53	9.75	7.05	1.94
Fluoride		mg/l	<0.5	<0.5	<1	<1	<1	0.279	<1	<1
Formaldehyde		ug/l	13.8	<10	<10	<10	<10	<10	<10	<20
Iron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese		mg/l	<0.01	<0.01	0.0303	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl Ethyl Ketone (MEK) (2-Butanone)		ug/l	<10	<10	<10	<10	<10	<10	<10	<10
Molybdenum		mg/l	0.00284	0.00397	0.00557	0.0035	0.00296	0.00213	0.00257	0.00219
Oxidation Reduction Potential		mV	194.2	-248.5	101.5	114	253	16.9	237.3	93.3
pH (field)		S.U.	6.71	6.36	6.88	7.48	6.08	8.77	7.26	7.59
Phenols, total		mg/l	<0.0196	<0.02	<0.0184	<0.0204	<0.02	<0.02	<0.02	<0.02
Specific Conductivity, Field		uS/cm	0.82	0.7	0.74	0.741	0.768	0.702	0.788	0.877
Sulfate		mg/l	28.5	30.6	32.6	34.7	39.7	44.4	41.6	44.5
Temperature		deg C	9.01	11.69	13.54	14.19	11.65	11.34	9.45	19.86
Total Organic Halogens, Halides		mg/l	<0.04	0.0667	<0.04	0.0861	<0.04	0.138	0.163	<0.06
Total Suspended Solids		mg/l	<1.88	<1.88	8.13	<1.88	<1.88	<1.88	3.5	<1.88
Water		ft	62.68	64.62	63.02	65.33	62.81	60.36	66.02	62.04
Zinc		mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Crawford-MW4

Location ID: MW4										
Number of Sampling Dates: 8										
Parameter Name	Replicate Code	Units	3/25/2022	9/21/2022	4/17/2023	9/11/2023	3/25/2024	7/23/2024	2/24/2025	7/24/2025
Aluminum, total		mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ammonia Nitrogen		mg/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Antimony		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Arsenic		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium		mg/l	0.125	0.129	0.125	0.135	0.112	0.118	0.125	0.118
Boron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium		mg/l	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chemical Oxygen Demand		mg/l	<25	<25	42	<25	<25	<25	<25	47.3
Chloride		mg/l	<5	<5	<5	<5	<5	5.92	<5	<5
Cobalt		mg/l	<0.0005	0.00209	<0.0005	0.00121	<0.0005	<0.0005	0.000563	<0.0005
Dissolved Oxygen		mg/l	9.49	5.27	3.76	0.91	17.57	6.25	6.25	3.91
Fluoride		mg/l	<0.5	<0.5	<1	<1	<1	<1	<1	<1
Formaldehyde		ug/l	<10	<10	<10	<10	<10	<10	<10	<20
Iron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.235	<0.1
Manganese		mg/l	0.0923	0.14	0.0739	0.0608	0.0764	0.0912	0.1	0.0996
Methyl Ethyl Ketone (MEK) (2-Butanone)		ug/l	<10	<10	<10	<10	<10	<10	<10	<10
Molybdenum		mg/l	<0.002	0.00229	0.00291	0.00242	0.00222	0.00234	0.00218	0.0033
Oxidation Reduction Potential		mV	90.3	-286.6	141.9	210.4	39.4	58.3	58.3	56.5
pH (field)		S.U.	6.84	7.46	7.82	6.74	8.84	7.82	7.83	7.46
Phenols, total		mg/l	<0.02	<0.0208	<0.02	<0.0204	<0.02	<0.02	<0.02	<0.02
Specific Conductivity, Field		uS/cm	0.63	0.551	0.471	0.51	0.522	1.035	1.035	0.565
Sulfate		mg/l	158	161	174	160	177	234	159	168
Temperature		deg C	10.29	9.25	10.52	12.98	9.43	16.73	9.71	15.77
Total Organic Halogens, Halides		mg/l	<0.04	0.0688	<0.04	<0.04	0.0808	<0.04	0.108	<0.06
Total Suspended Solids		mg/l	<5	6.63	<1.88	<1.88	<5	<1.88	<1.88	2.38
Water		ft	36.03	34.9	32.53	37.59	54.64	40.96	33.56	31.07
Zinc		mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

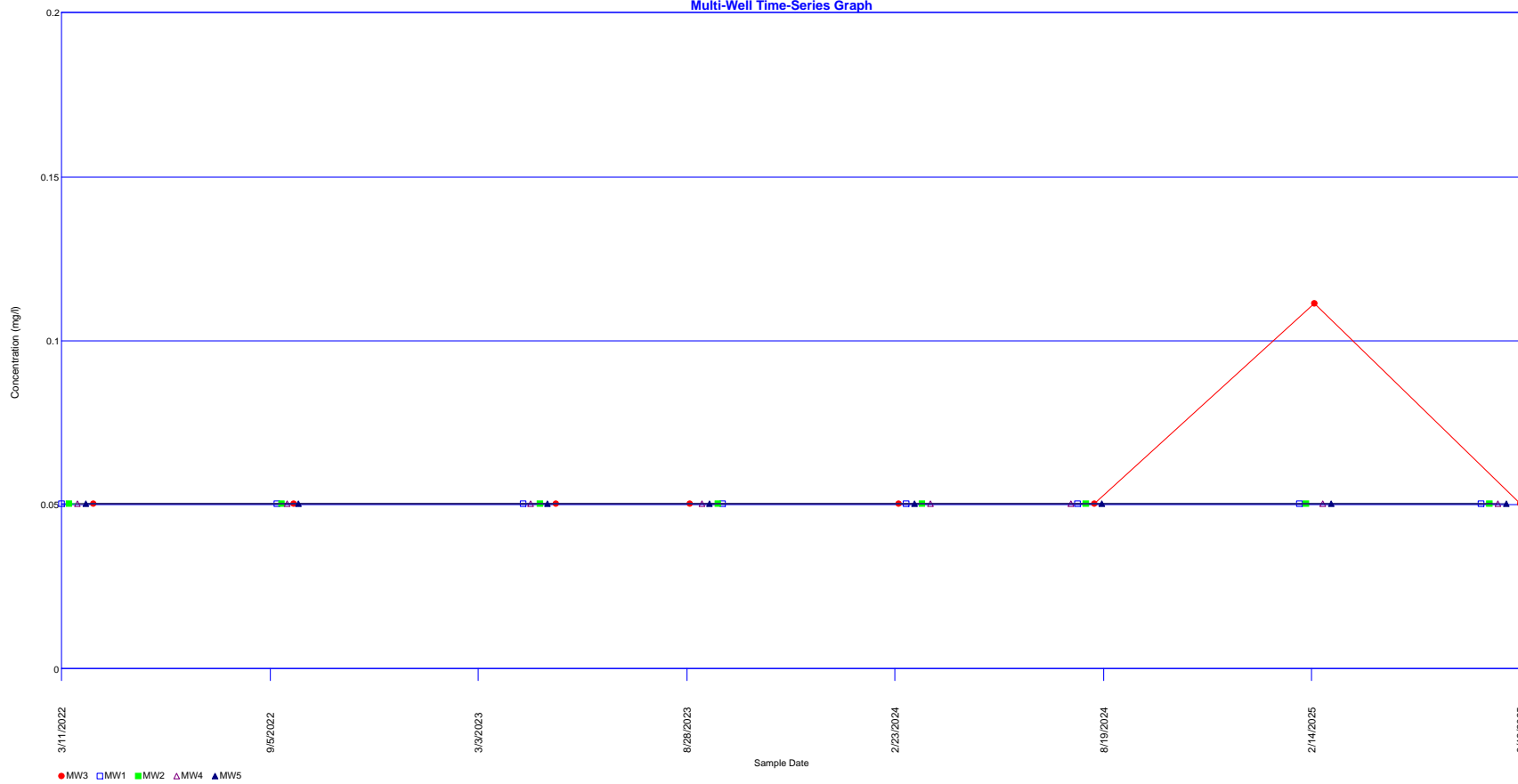
Crawford-MW5

Location ID: MW5										
Number of Sampling Dates: 8										
Parameter Name	Replicate Code	Units	4/1/2022	9/30/2022	5/2/2023	9/18/2023	3/11/2024	8/19/2024	3/3/2025	7/31/2025
Aluminum, total		mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05
Ammonia Nitrogen		mg/l	<0.5	0.529	<0.5	<0.5	<0.5	0.508	<0.5	0.517
Antimony		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Arsenic		mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium		mg/l	0.126	0.0965	0.0775	0.0955	0.0801	0.0941	0.0836	0.0841
Boron		mg/l	0.23	0.191	0.188	0.213	0.16	0.176	0.171	0.185
Cadmium		mg/l	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chemical Oxygen Demand		mg/l	<25	55.3	43.7	32.1	<25	<25	<25	<25
Chloride		mg/l	<5	<5	<5	<5	<5	<1	<5	<5
Cobalt		mg/l	<0.0005	<0.0005	<0.0005	<0.0005	0.00211	<0.0005	<0.0005	0.000759
Dissolved Oxygen		mg/l	10.12	4.36	2.46	0.52	17.68	4.71	4.2	5.66
Fluoride		mg/l	0.721	<0.5	<1	<1	<1	0.771	<1	<1
Formaldehyde		ug/l	<10	<10	<10	<10	<10	<10	<10	<20
Iron		mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese		mg/l	0.12	0.0595	0.0538	0.0806	0.0695	0.0754	0.0689	0.088
Methyl Ethyl Ketone (MEK) (2-Butanone)		ug/l	<10	<10	<10	<10	<10	<10	<10	<10
Molybdenum		mg/l	<0.002	<0.002	0.00266	<0.002	<0.002	<0.002	<0.002	<0.002
Oxidation Reduction Potential		mV	57.1	-254	88.4	253.4	22.4	56.8	165.8	86.1
pH (field)		S.U.	6.67	6.44	8.17	7.44	8.09	8.17	7.42	7.64
Phenols, total		mg/l	<0.02	<0.02	<0.02	<0.0204	<0.02	<0.02	<0.02	<0.02
Specific Conductivity, Field		uS/cm	0.654	0.529	0.446	0.451	0.44	0.55	0.534	0.491
Sulfate		mg/l	18.1	18.5	24.7	20.8	22	23.3	18.8	23.1
Temperature		deg C	10.83	11.73	11.42	13.76	9.58	16.82	10.16	17.08
Total Organic Halogens, Halides		mg/l	<0.04	0.757	<0.04	<0.04	<0.04	<0.04	<0.06	<0.06
Total Suspended Solids		mg/l	<5	<1.88	<1.88	2.25	<1.88	<1.88	<1.88	<1.88
Water		ft	91.57	94.18	96.35	96.61	92.19	90.92	96.12	91.03
Zinc		mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

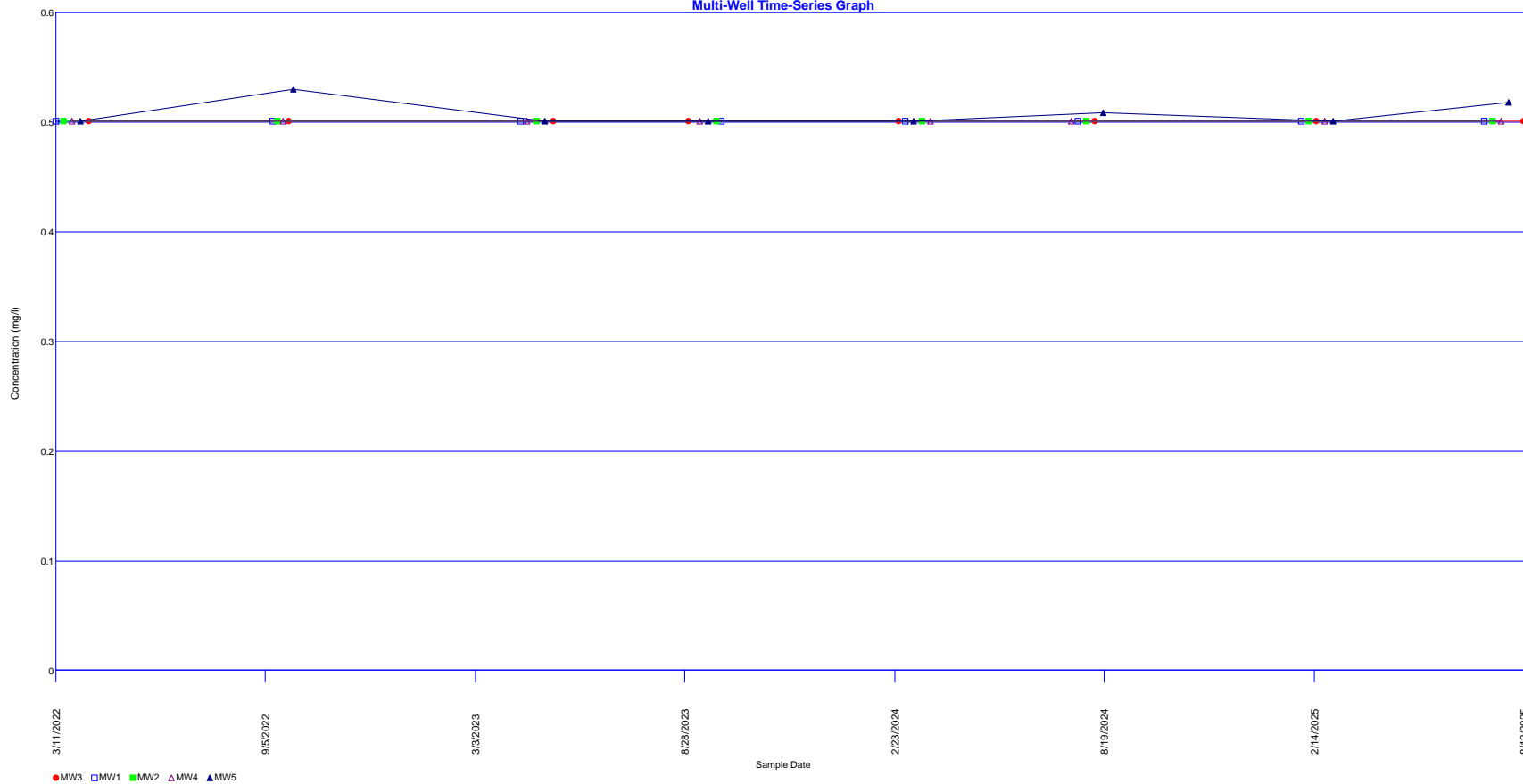
APPENDIX A

Time Series Plots

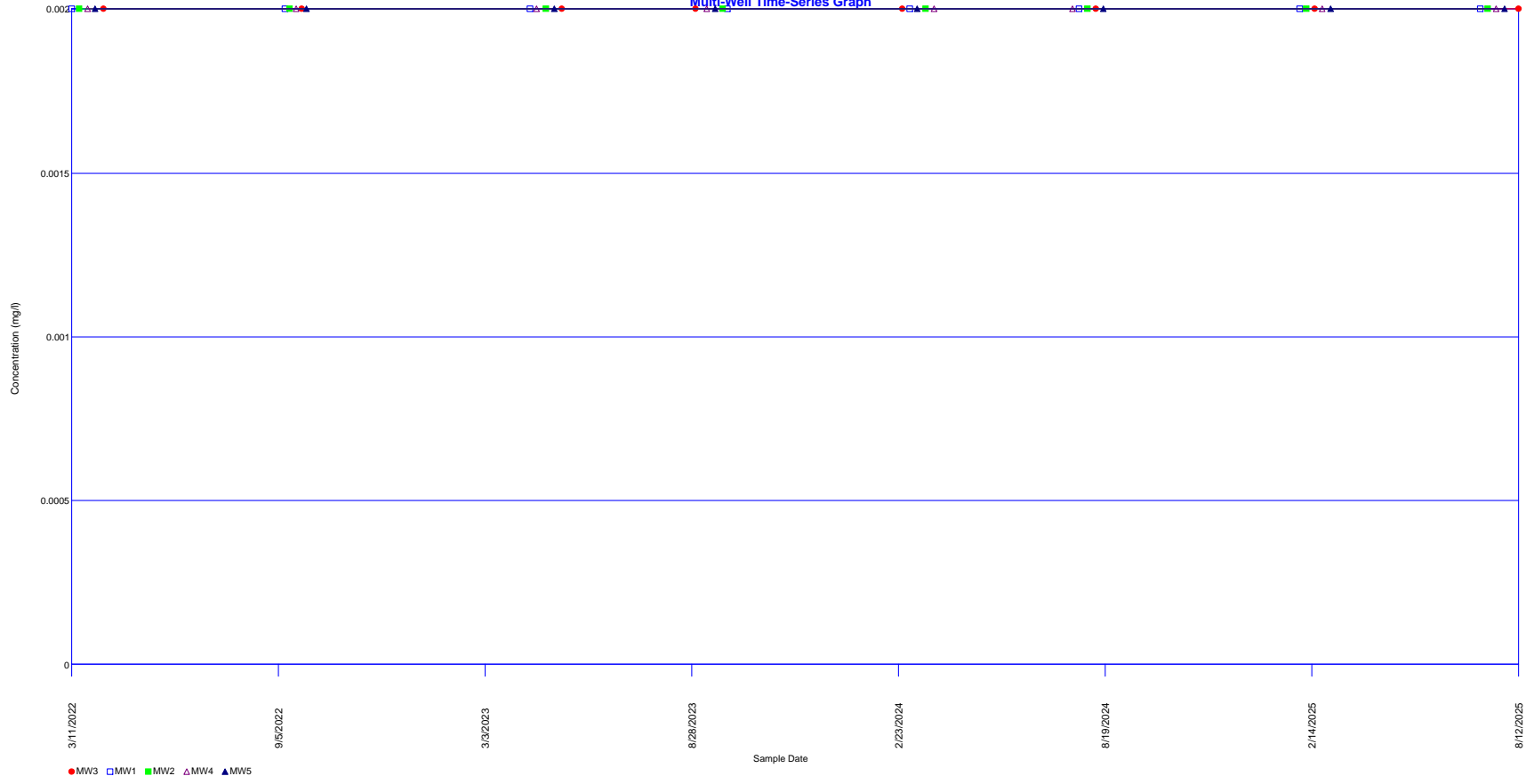
Aluminum, total
Multi-Well Time-Series Graph

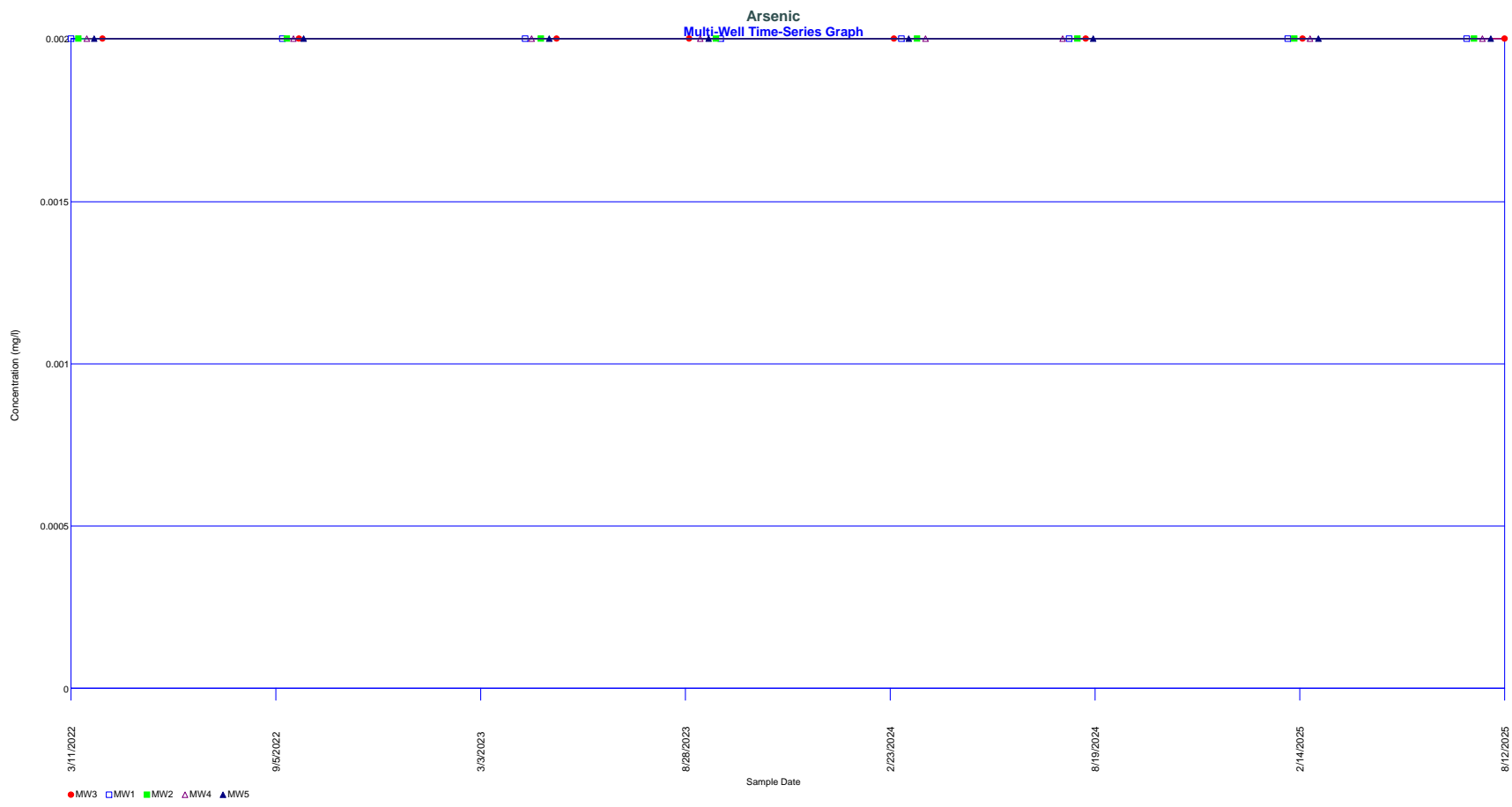


Ammonia Nitrogen
Multi-Well Time-Series Graph

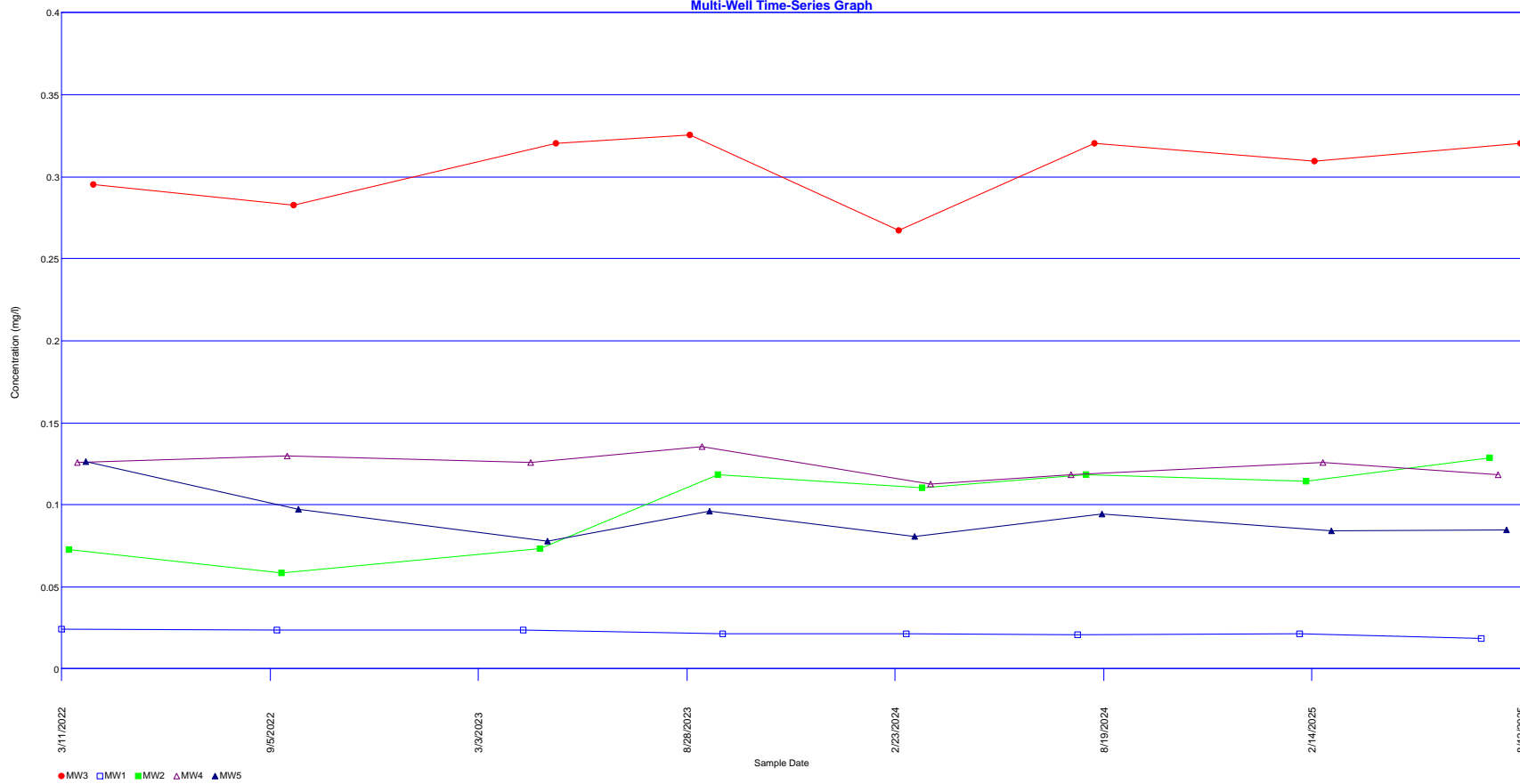


Antimony
Multi-Well Time-Series Graph

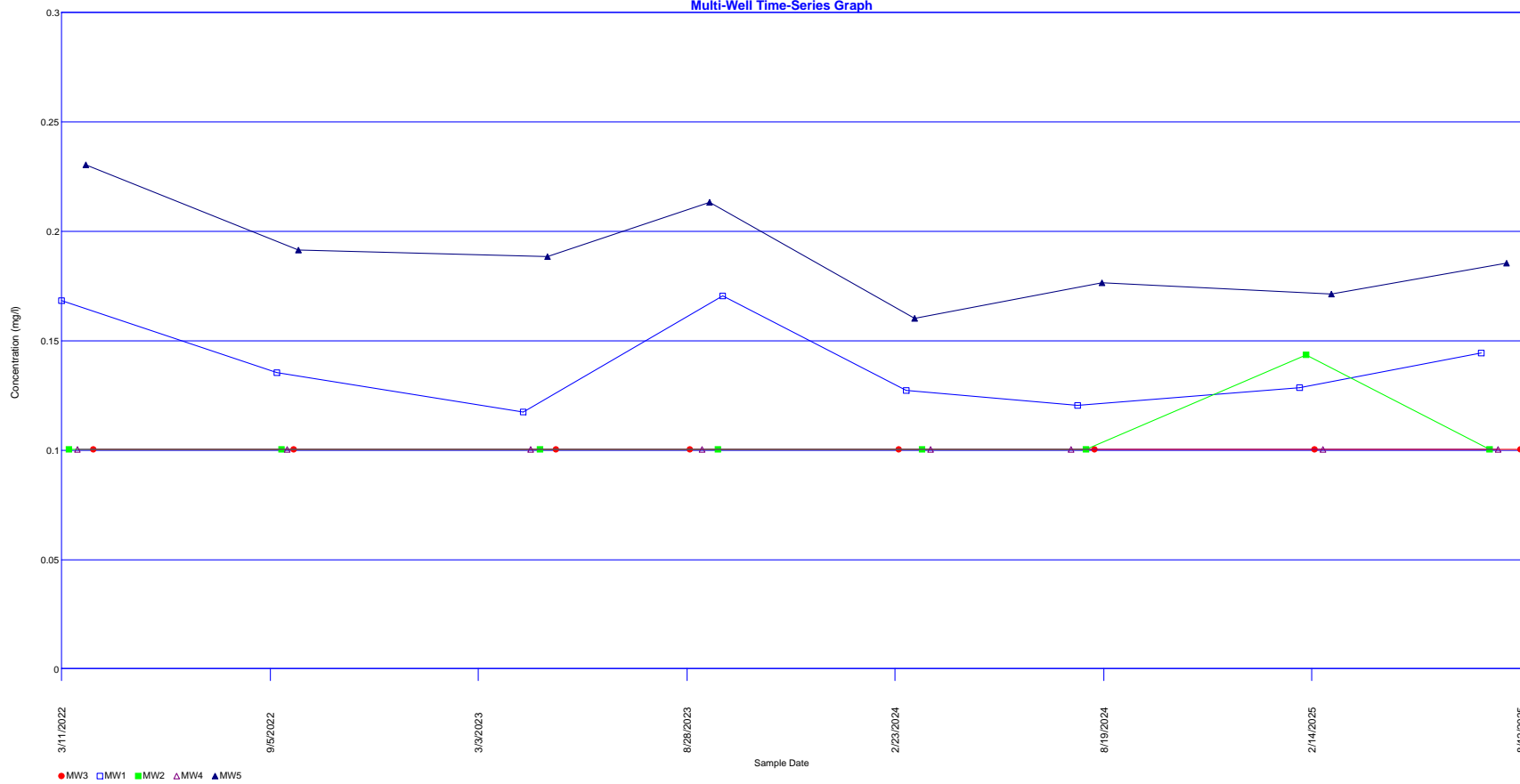




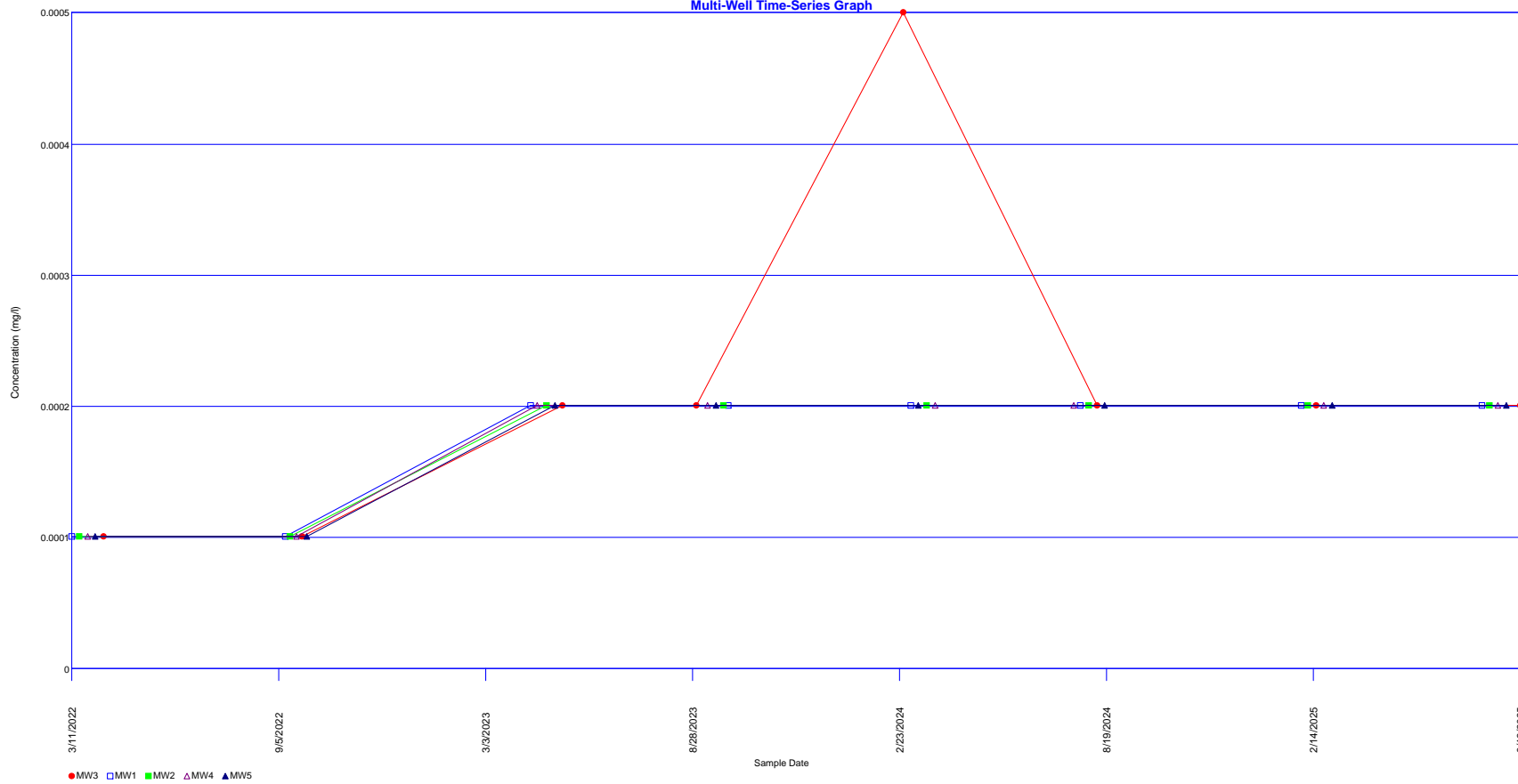
Barium
Multi-Well Time-Series Graph



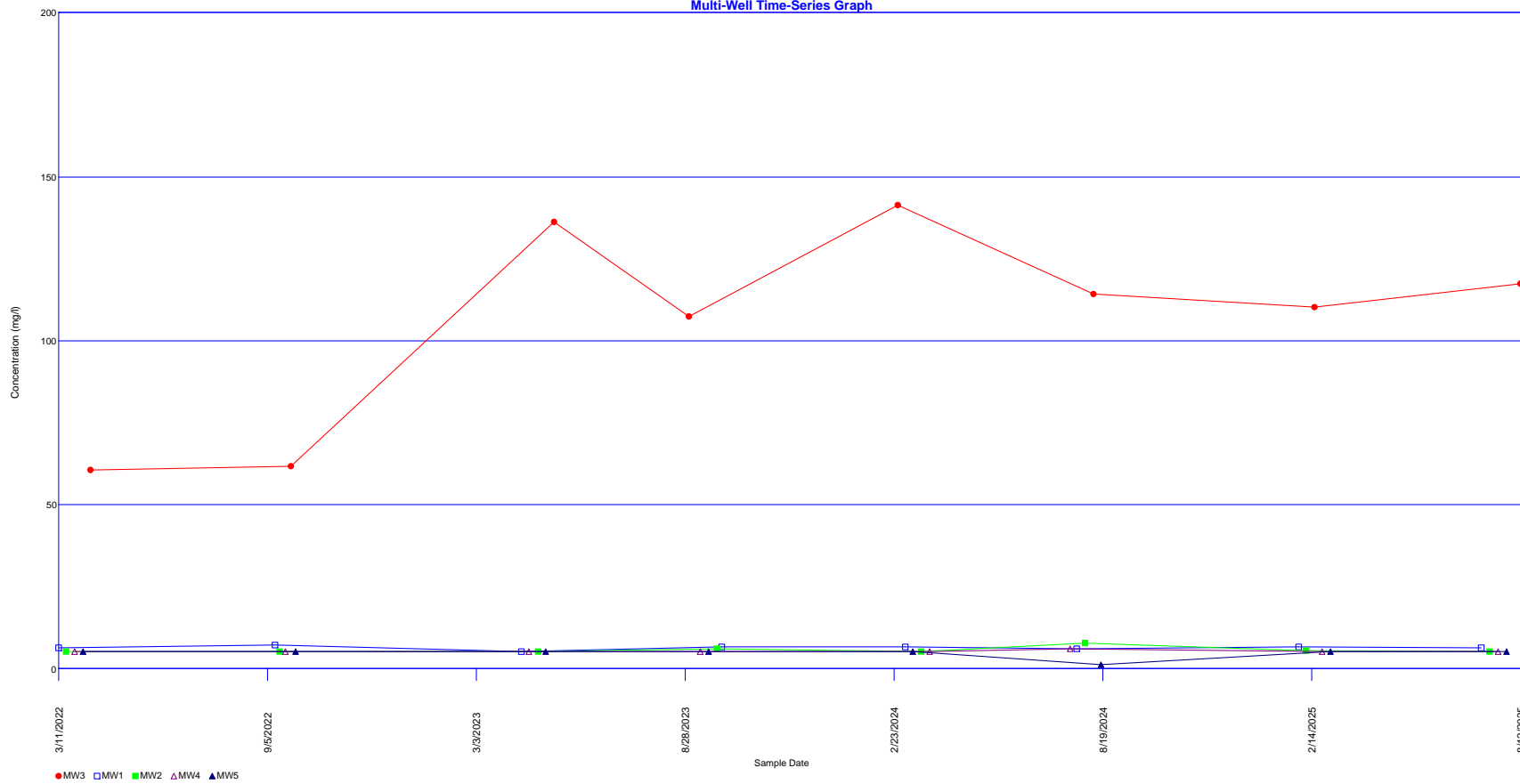
Boron
Multi-Well Time-Series Graph



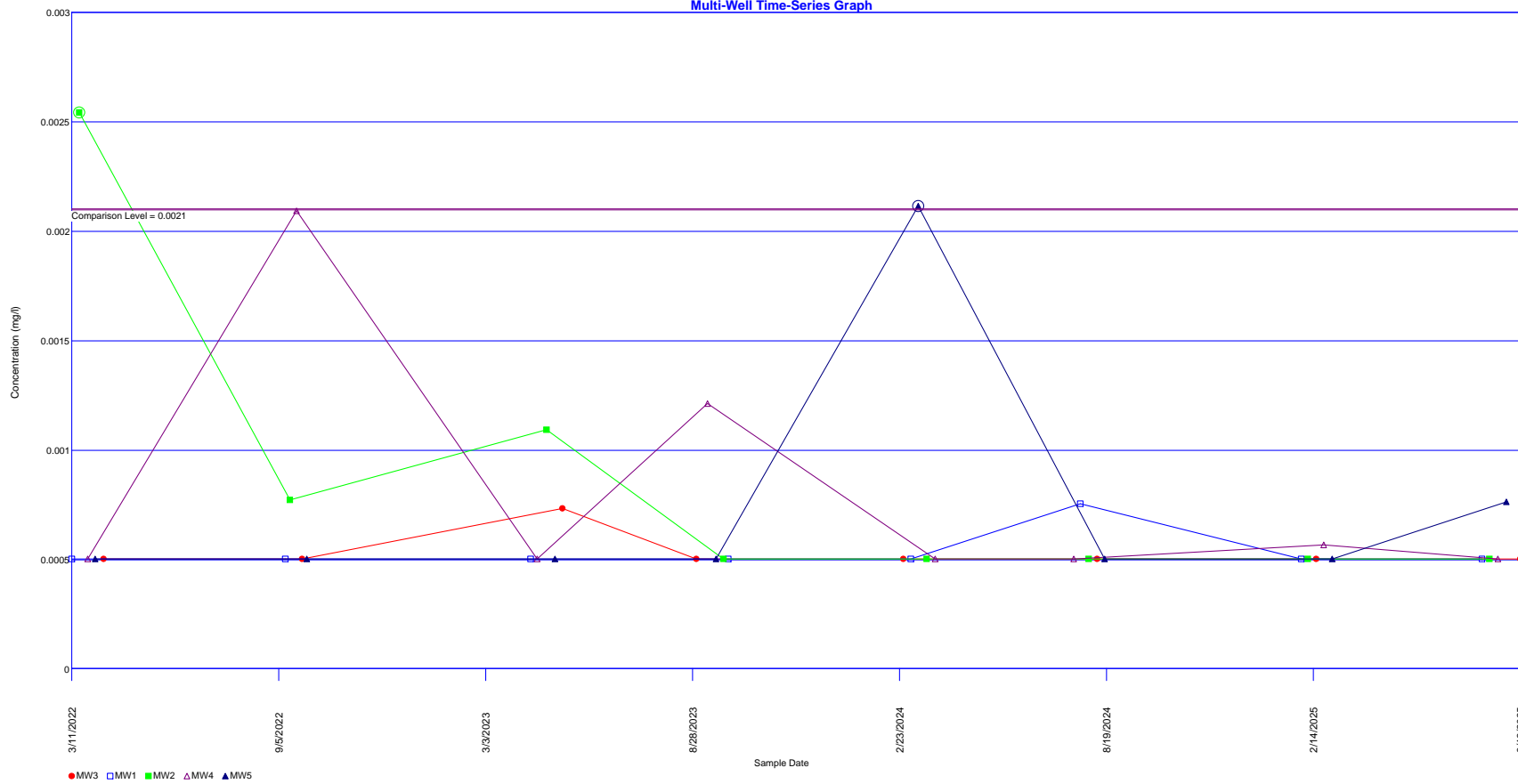
Cadmium
Multi-Well Time-Series Graph



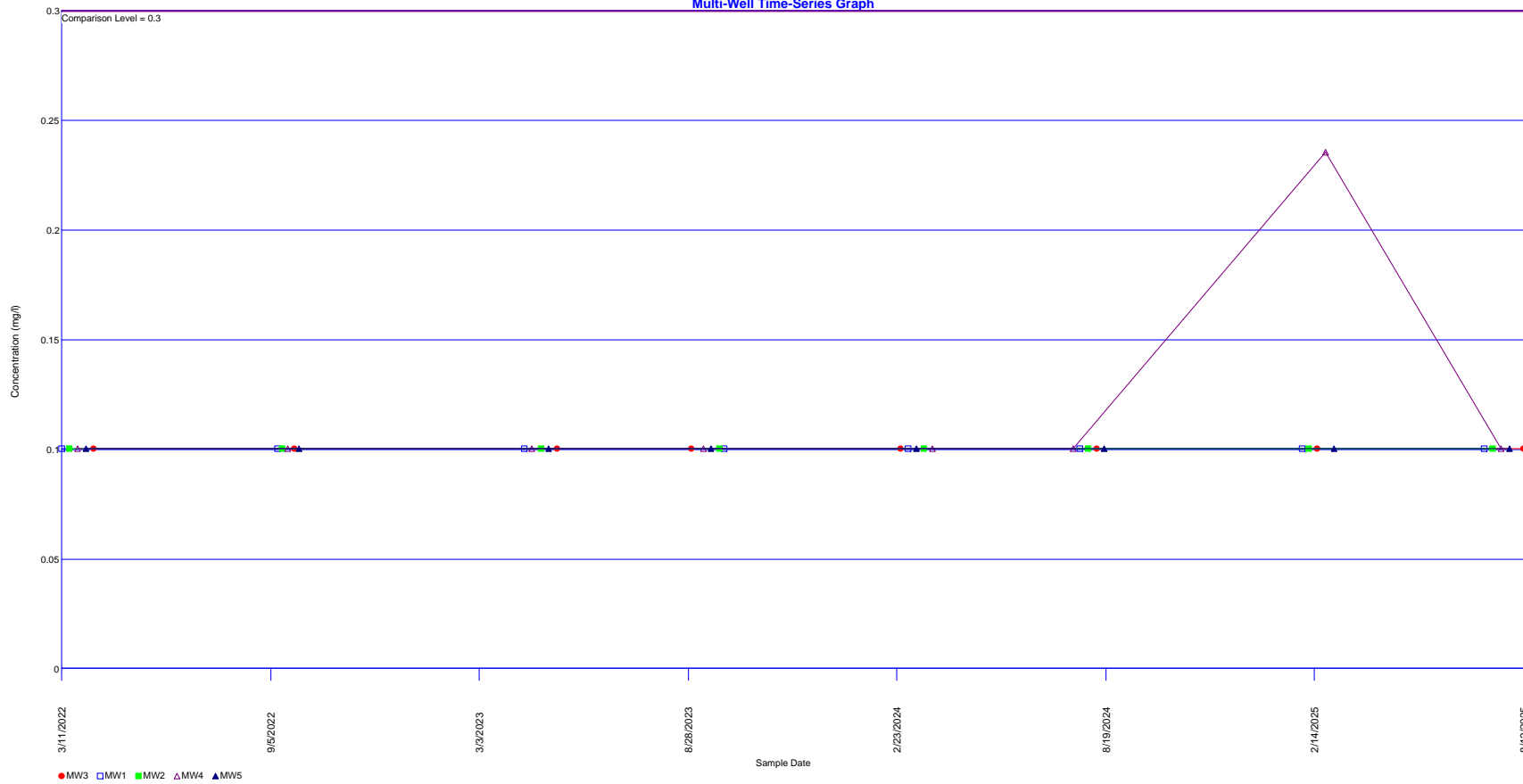
Chloride
Multi-Well Time-Series Graph

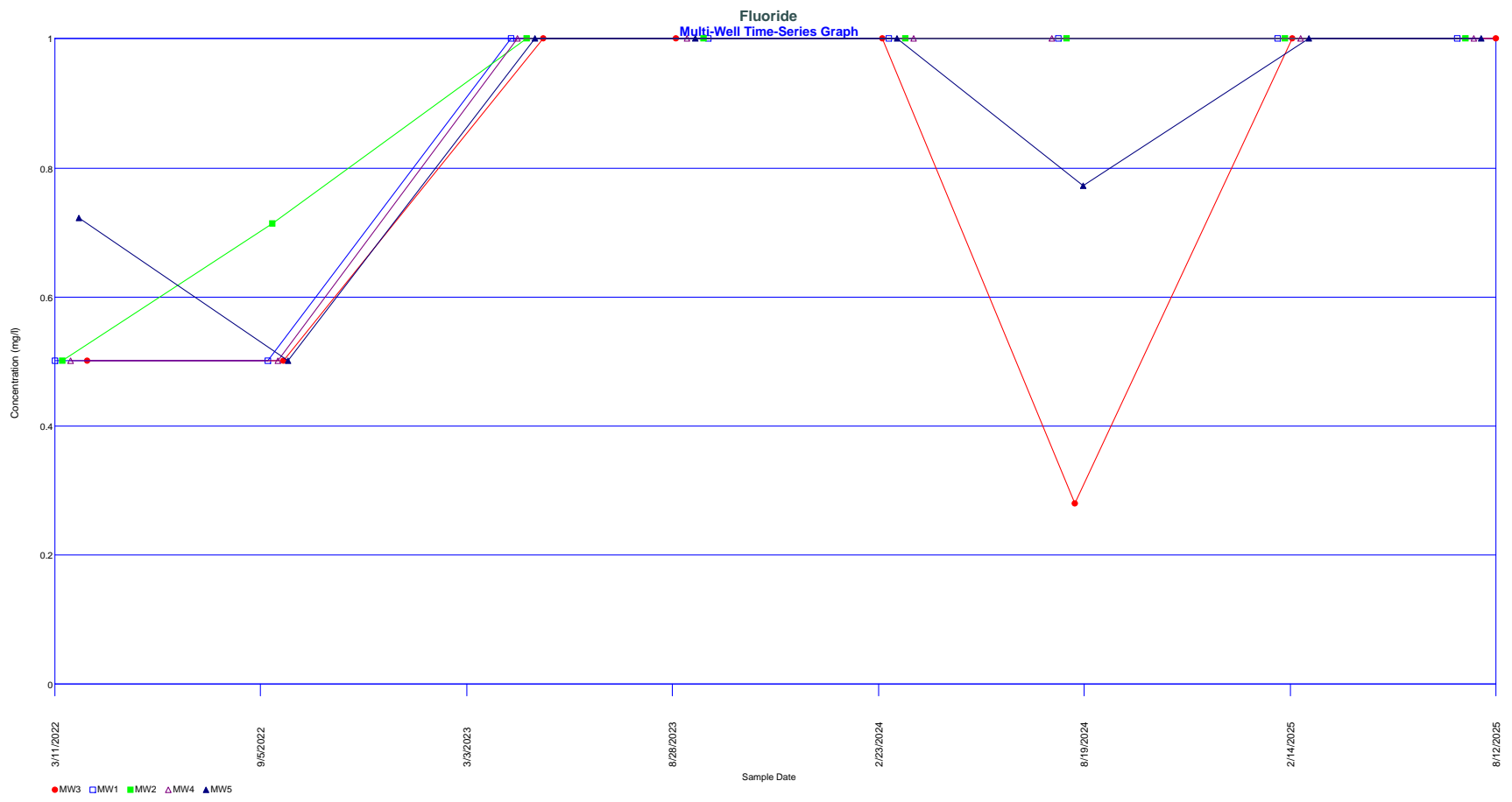


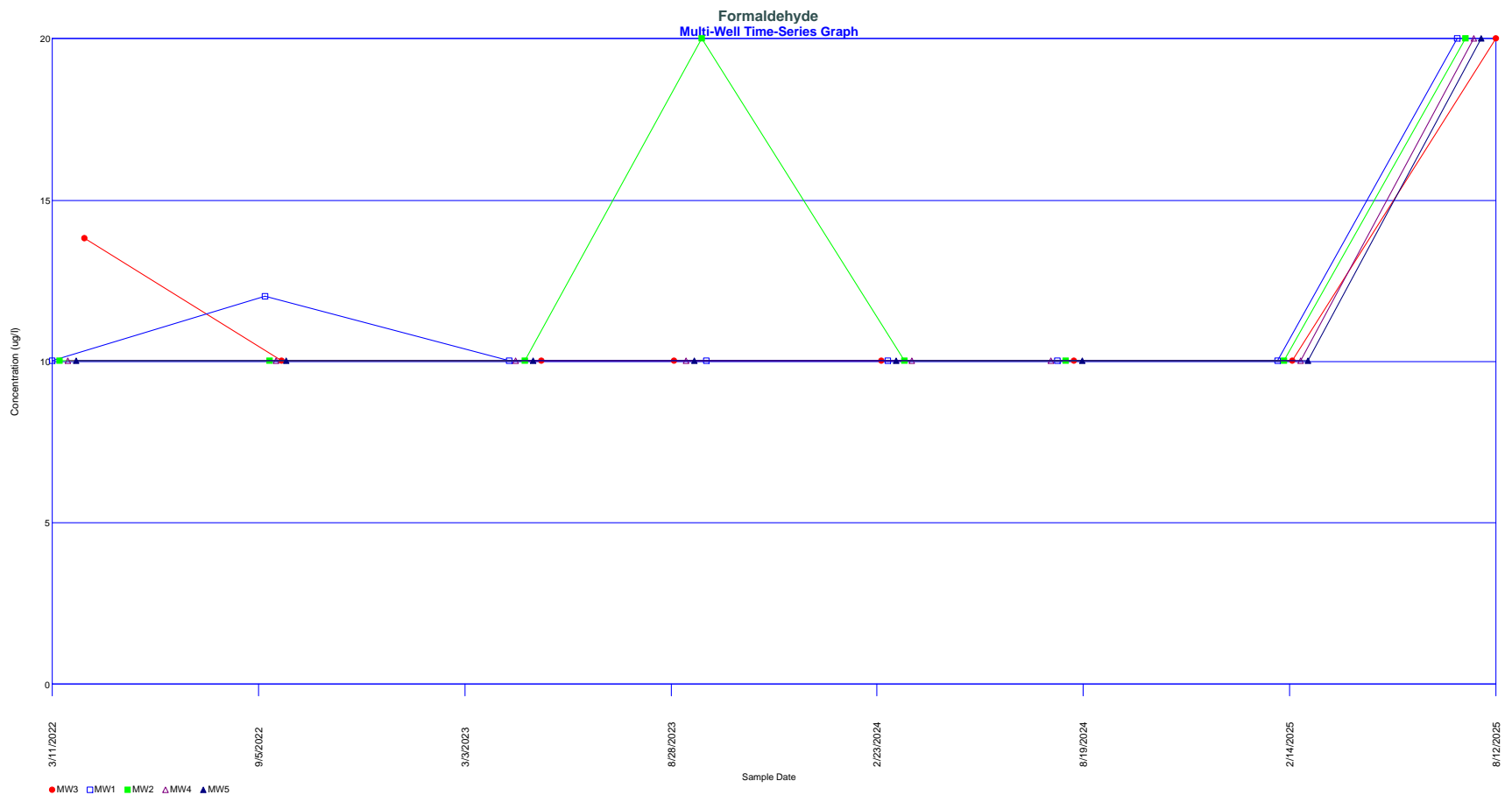
Cobalt
Multi-Well Time-Series Graph



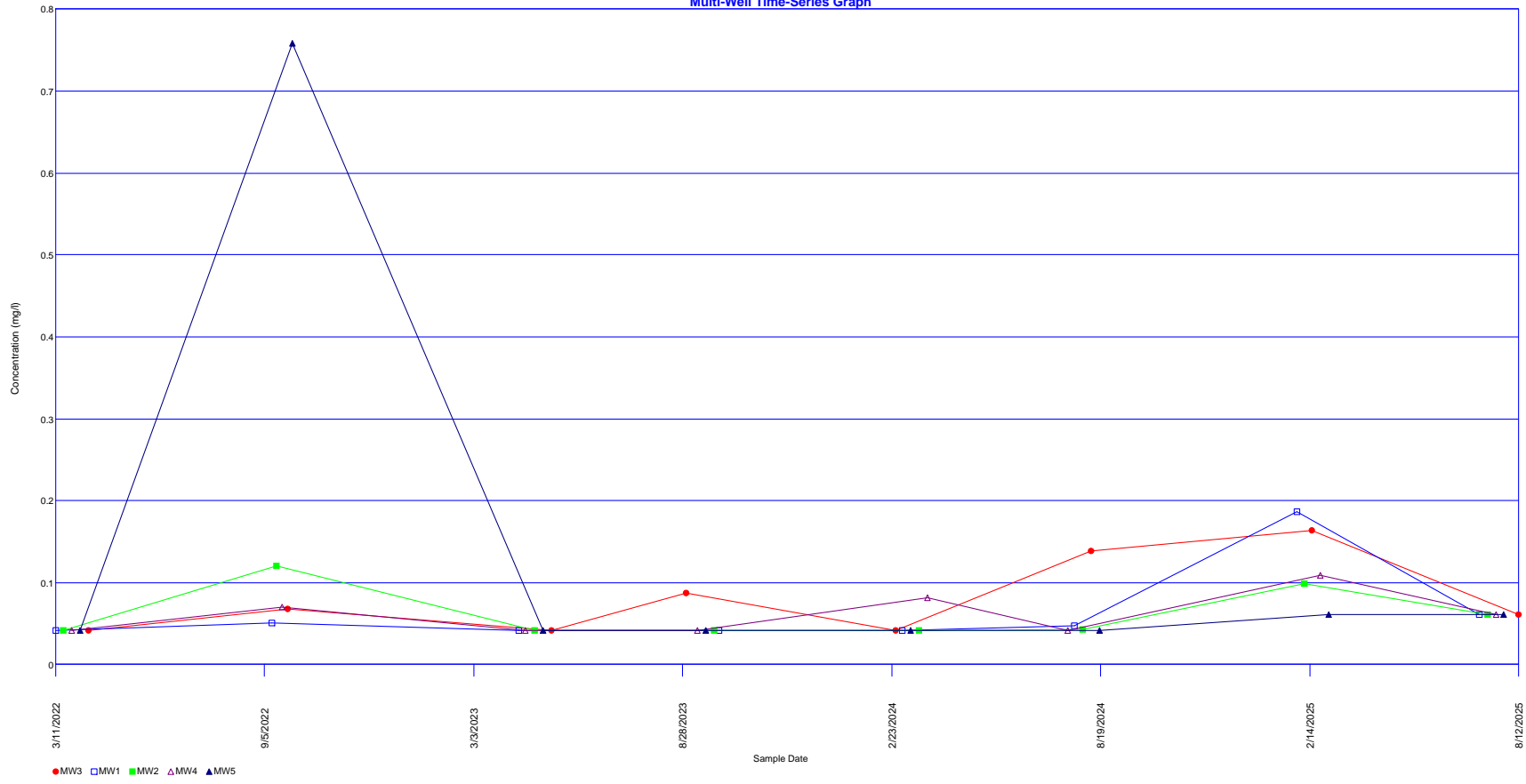
Iron
Multi-Well Time-Series Graph



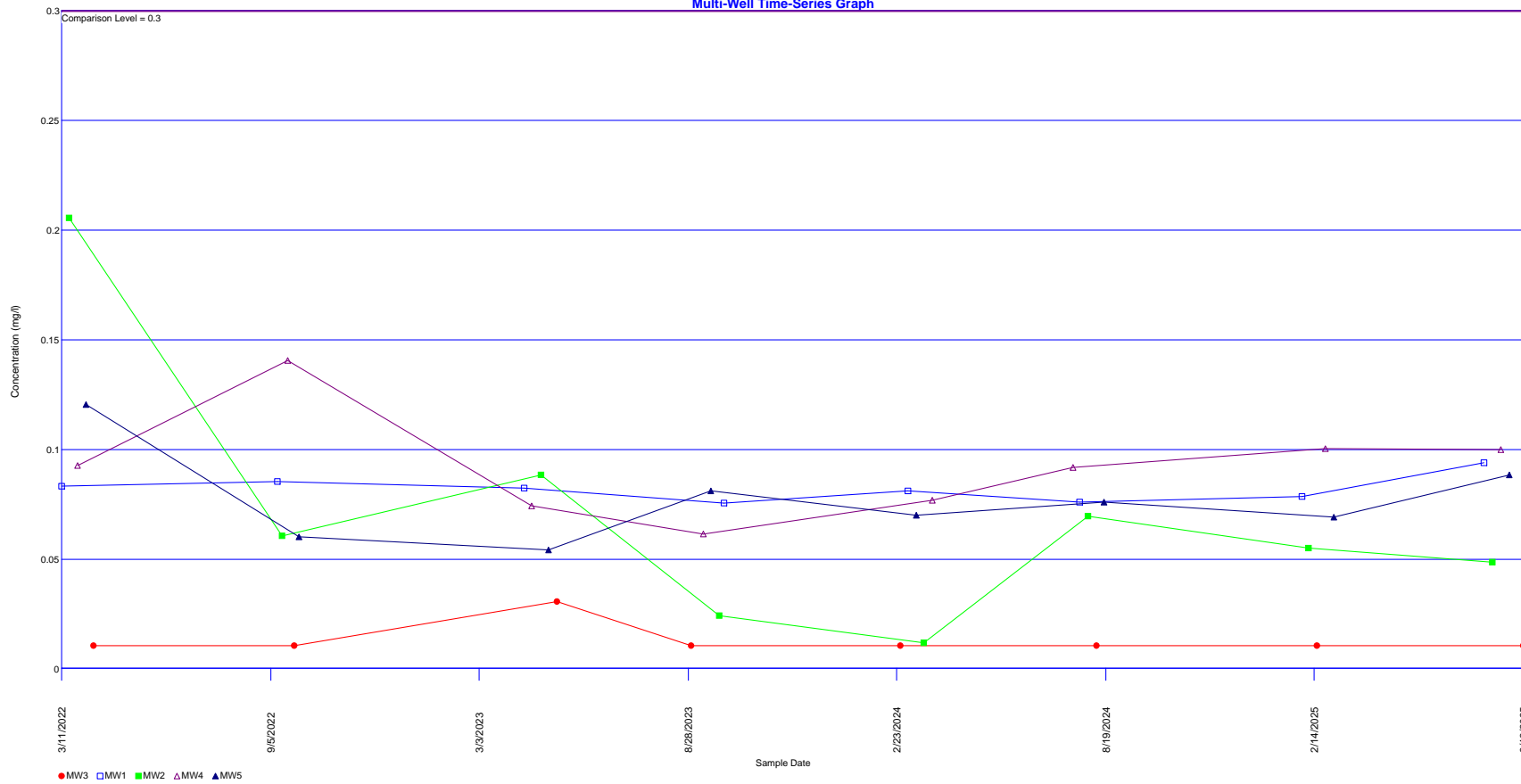




Total Organic Halogens, Halides
Multi-Well Time-Series Graph

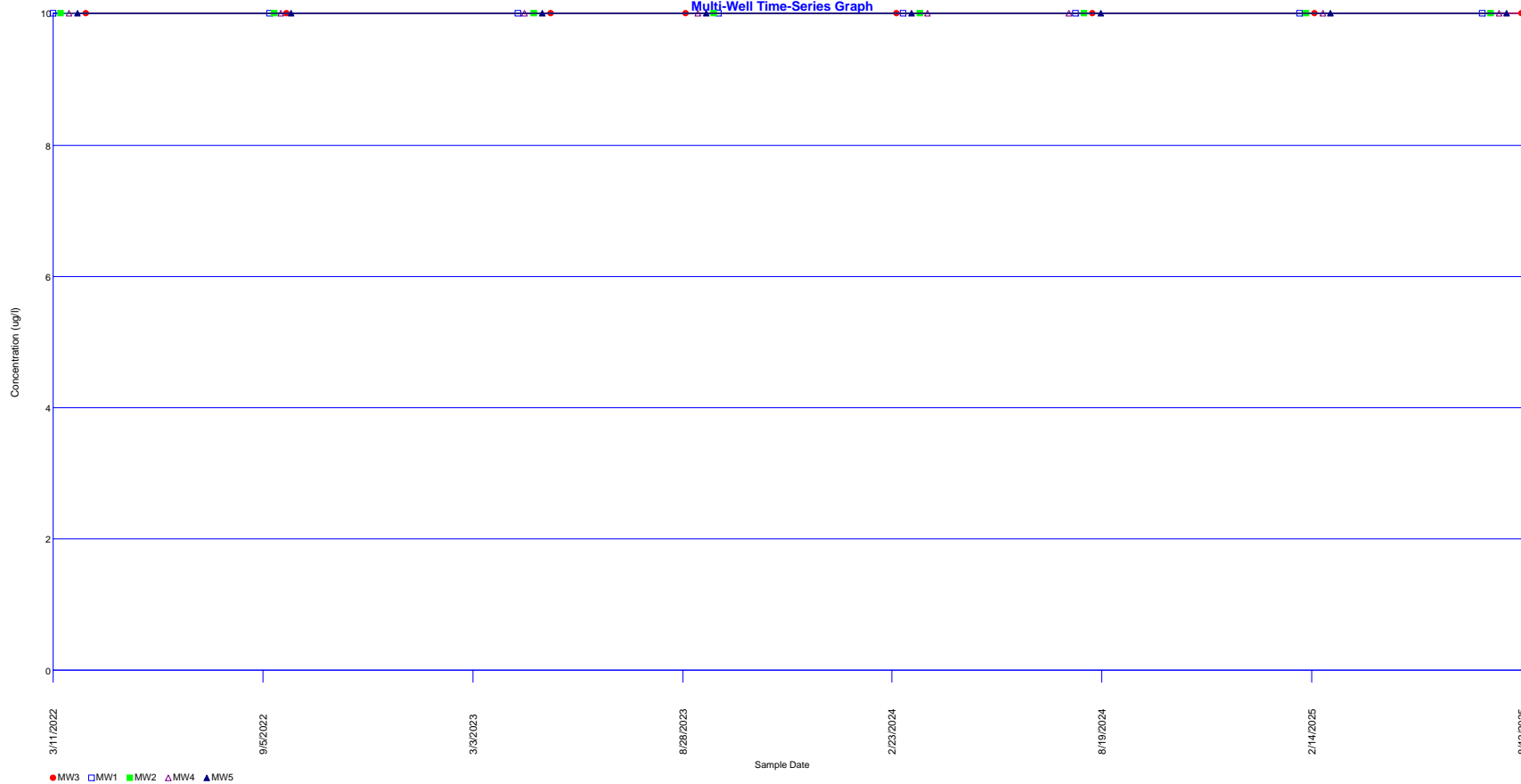


Manganese
Multi-Well Time-Series Graph



Methyl Ethyl Ketone (MEK) (2-Butanone)

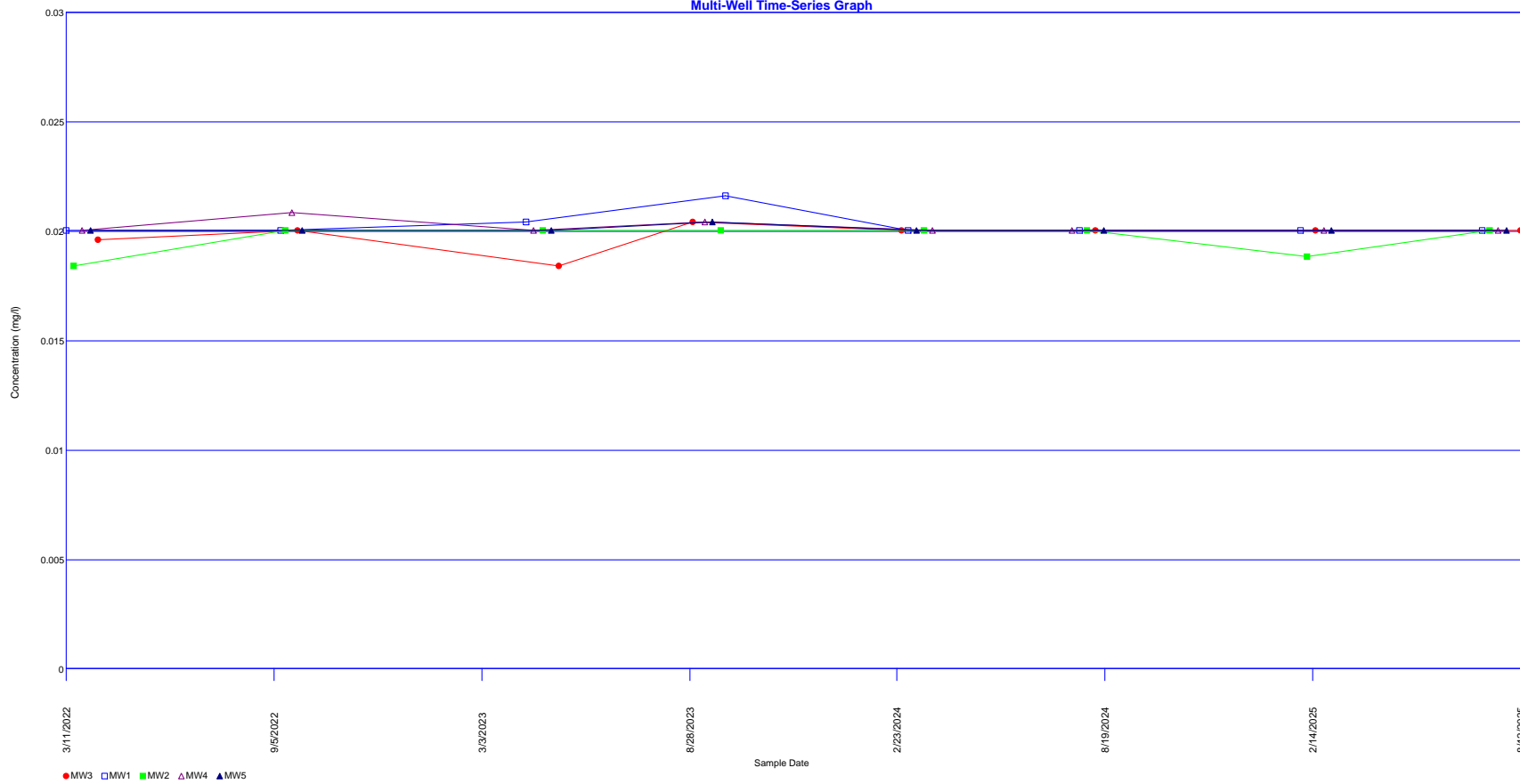
Multi-Well Time-Series Graph



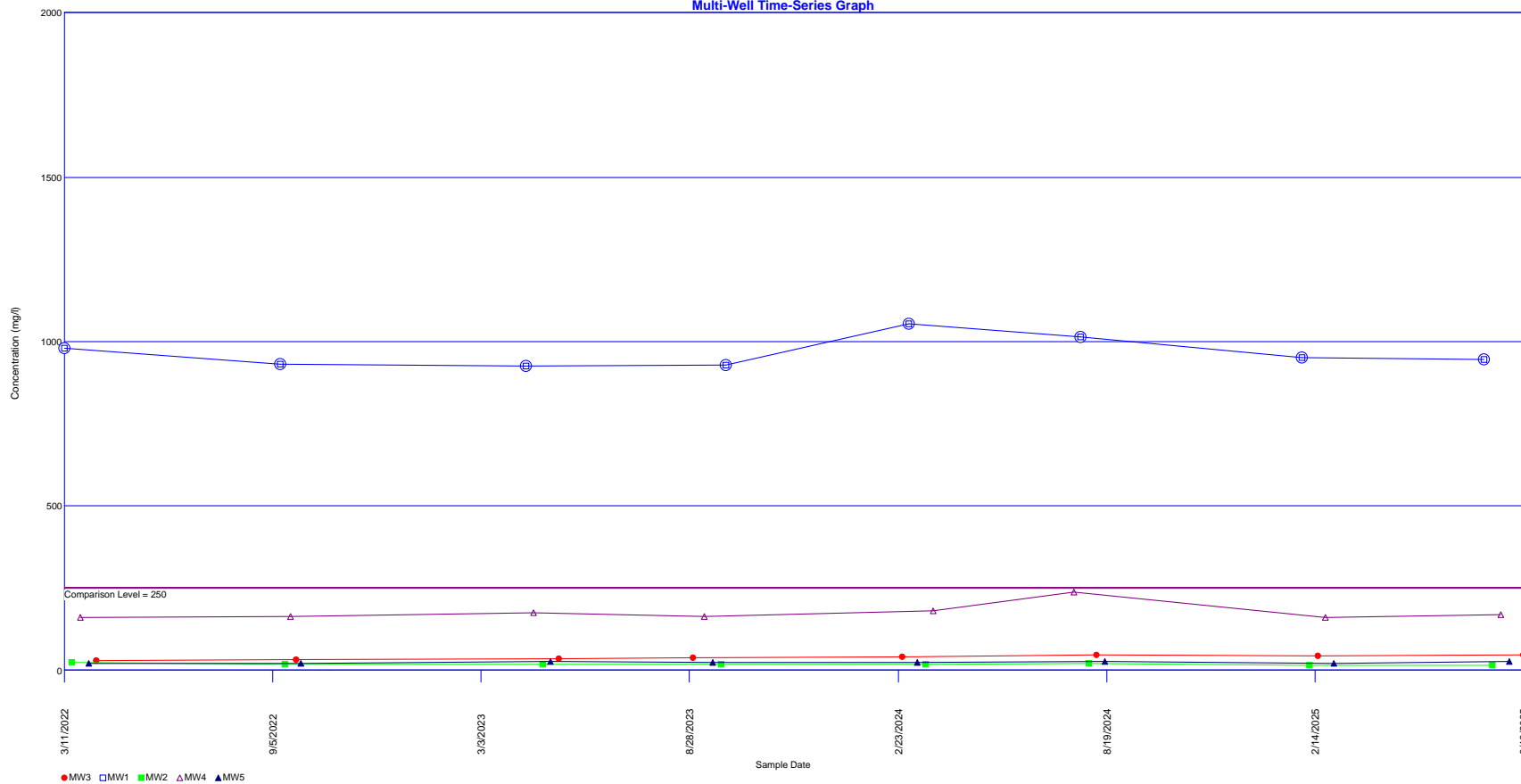
Molybdenum
Multi-Well Time-Series Graph



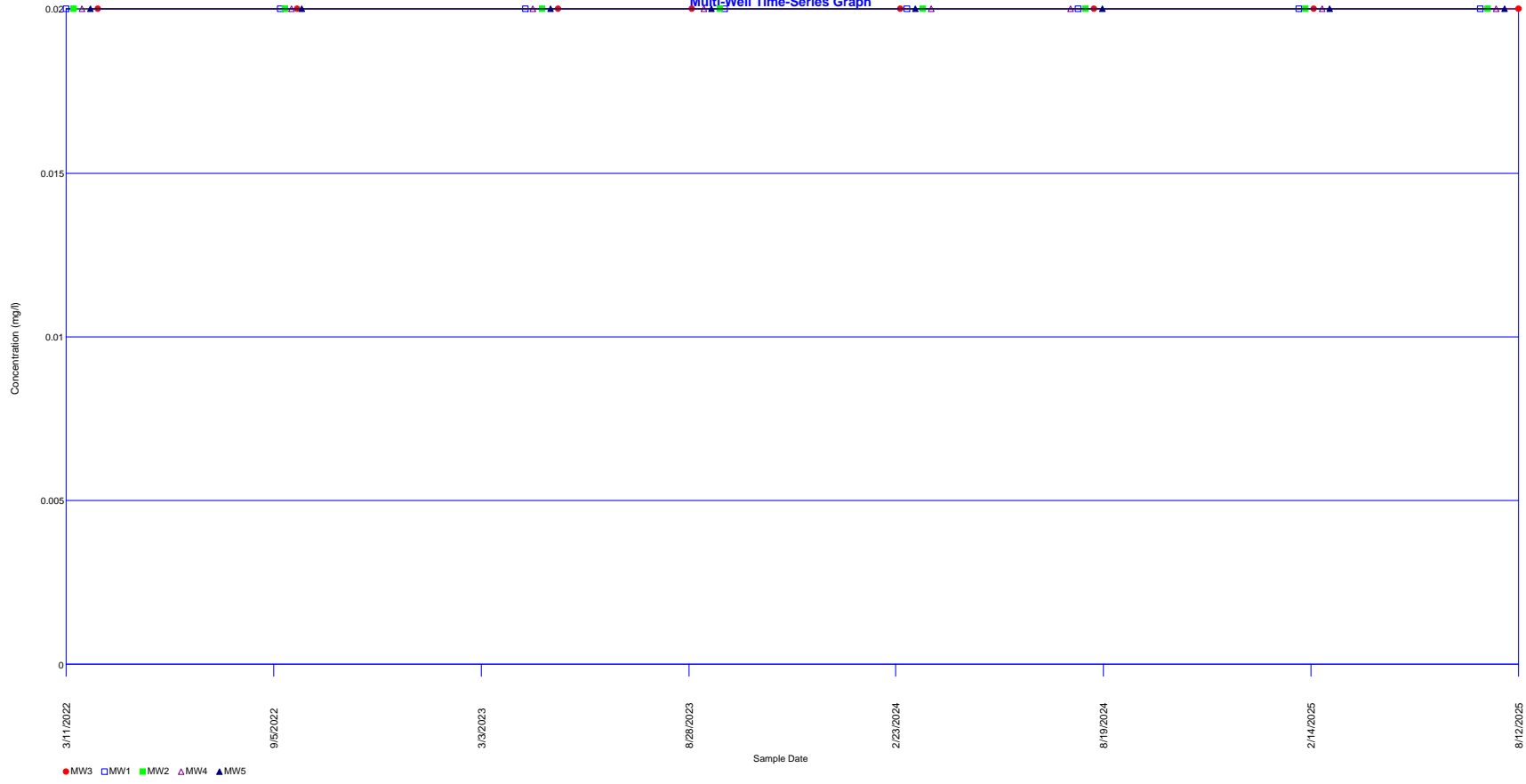
Phenols, total
Multi-Well Time-Series Graph



Sulfate
Multi-Well Time-Series Graph



Zinc
Multi-Well Time-Series Graph



APPENDIX B

Shapiro-Wilk Tests

Shapiro-Wilks Test of Normality

Parameter: Aluminum, total

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.05	0.111	0.061	0.6052	0.0369172
2	0.05	0.05	0	0.3164	0
3	0.05	0.05	0	0.1743	0
4	0.05	0.05	0	0.0561	0
5	0.05	0.05	0		
6	0.05	0.05	0		
7	0.05	0.05	0		
8	0.111	0.05	-0.061		

Sum of b values = 0.0369172

Sample Standard Deviation = 0.0215668

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Ammonia Nitrogen

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.5	0.529	0.029	0.6052	0.0175508
2	0.5	0.517	0.017	0.3164	0.0053788
3	0.5	0.508	0.008	0.1743	0.0013944
4	0.5	0.5	0	0.0561	0
5	0.5	0.5	0		
6	0.508	0.5	-0.008		
7	0.517	0.5	-0.017		
8	0.529	0.5	-0.029		

Sum of b values = 0.024324

Sample Standard Deviation = 0.0108858

W Statistic = 0.713269

5% Critical value of 0.818 exceeds 0.713269

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.713269

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Barium

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0179	0.0236	0.0057	0.6052	0.00344964
2	0.0203	0.0233	0.003	0.3164	0.0009492
3	0.0207	0.0231	0.0024	0.1743	0.00041832
4	0.021	0.021	0	0.0561	0
5	0.021	0.021	0		
6	0.0231	0.0207	-0.0024		
7	0.0233	0.0203	-0.003		
8	0.0236	0.0179	-0.0057		

Sum of b values = 0.00481716

Sample Standard Deviation = 0.00191232

W Statistic = 0.906491

5% Critical value of 0.818 is less than 0.906491

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.906491

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Barium

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0582	0.128	0.0698	0.6052	0.042243
2	0.072	0.118	0.046	0.3164	0.0145544
3	0.0727	0.118	0.0453	0.1743	0.00789579
4	0.11	0.114	0.004	0.0561	0.0002244
5	0.114	0.11	-0.004		
6	0.118	0.0727	-0.0453		
7	0.118	0.072	-0.046		
8	0.128	0.0582	-0.0698		

Sum of b values = 0.0649176

Sample Standard Deviation = 0.0267106

W Statistic = 0.84384

5% Critical value of 0.818 is less than 0.84384

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.84384

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Barium

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.267	0.325	0.058	0.6052	0.0351016
2	0.282	0.32	0.038	0.3164	0.0120232
3	0.295	0.32	0.025	0.1743	0.0043575
4	0.309	0.32	0.011	0.0561	0.0006171
5	0.32	0.309	-0.011		
6	0.32	0.295	-0.025		
7	0.32	0.282	-0.038		
8	0.325	0.267	-0.058		

Sum of b values = 0.0520994

Sample Standard Deviation = 0.0212586

W Statistic = 0.85802

5% Critical value of 0.818 is less than 0.85802

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.85802

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Barium

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.112	0.135	0.023	0.6052	0.0139196
2	0.118	0.129	0.011	0.3164	0.0034804
3	0.118	0.125	0.007	0.1743	0.0012201
4	0.125	0.125	0	0.0561	0
5	0.125	0.125	0		
6	0.125	0.118	-0.007		
7	0.129	0.118	-0.011		
8	0.135	0.112	-0.023		

Sum of b values = 0.0186201

Sample Standard Deviation = 0.00719002

W Statistic = 0.958088

5% Critical value of 0.818 is less than 0.958088

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.958088

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Barium

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0775	0.126	0.0485	0.6052	0.0293522
2	0.0801	0.0965	0.0164	0.3164	0.00518896
3	0.0836	0.0955	0.0119	0.1743	0.00207417
4	0.0841	0.0941	0.01	0.0561	0.000561
5	0.0941	0.0841	-0.01		
6	0.0955	0.0836	-0.0119		
7	0.0965	0.0801	-0.0164		
8	0.126	0.0775	-0.0485		

Sum of b values = 0.0371763

Sample Standard Deviation = 0.0154804

W Statistic = 0.823895

5% Critical value of 0.818 is less than 0.823895

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.823895

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Boron

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.117	0.17	0.053	0.6052	0.0320756
2	0.12	0.168	0.048	0.3164	0.0151872
3	0.127	0.144	0.017	0.1743	0.0029631
4	0.128	0.135	0.007	0.0561	0.0003927
5	0.135	0.128	-0.007		
6	0.144	0.127	-0.017		
7	0.168	0.12	-0.048		
8	0.17	0.117	-0.053		

Sum of b values = 0.0506186

Sample Standard Deviation = 0.0205352

W Statistic = 0.868005

5% Critical value of 0.818 is less than 0.868005

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.868005

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Boron

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.1	0.143	0.043	0.6052	0.0260236
2	0.1	0.1	0	0.3164	0
3	0.1	0.1	0	0.1743	0
4	0.1	0.1	0	0.0561	0
5	0.1	0.1	0		
6	0.1	0.1	0		
7	0.1	0.1	0		
8	0.143	0.1	-0.043		

Sum of b values = 0.0260236

Sample Standard Deviation = 0.0152028

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Boron

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.16	0.23	0.07	0.6052	0.042364
2	0.171	0.213	0.042	0.3164	0.0132888
3	0.176	0.191	0.015	0.1743	0.0026145
4	0.185	0.188	0.003	0.0561	0.0001683
5	0.188	0.185	-0.003		
6	0.191	0.176	-0.015		
7	0.213	0.171	-0.042		
8	0.23	0.16	-0.07		

Sum of b values = 0.0584356

Sample Standard Deviation = 0.0227141

W Statistic = 0.945513

5% Critical value of 0.818 is less than 0.945513

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.945513

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Chloride

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	5	6.86	1.86	0.6052	1.12567
2	5.97	6.53	0.56	0.3164	0.177184
3	6.02	6.38	0.36	0.1743	0.062748
4	6.25	6.33	0.08	0.0561	0.004488
5	6.33	6.25	-0.08		
6	6.38	6.02	-0.36		
7	6.53	5.97	-0.56		
8	6.86	5	-1.86		

Sum of b values = 1.37009

Sample Standard Deviation = 0.549435

W Statistic = 0.888319

5% Critical value of 0.818 is less than 0.888319

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.888319

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Chloride

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	5	7.68	2.68	0.6052	1.62194
2	5	5.99	0.99	0.3164	0.313236
3	5	5.39	0.39	0.1743	0.067977
4	5	5.07	0.07	0.0561	0.003927
5	5.07	5	-0.07		
6	5.39	5	-0.39		
7	5.99	5	-0.99		
8	7.68	5	-2.68		

Sum of b values = 2.00708

Sample Standard Deviation = 0.940166

W Statistic = 0.651059

5% Critical value of 0.818 exceeds 0.651059

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.651059

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Chloride

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	60.4	141	80.6	0.6052	48.7791
2	61.4	136	74.6	0.3164	23.6034
3	107	117	10	0.1743	1.743
4	110	114	4	0.0561	0.2244
5	114	110	-4		
6	117	107	-10		
7	136	61.4	-74.6		
8	141	60.4	-80.6		

Sum of b values = 74.35

Sample Standard Deviation = 30.2261

W Statistic = 0.864366

5% Critical value of 0.818 is less than 0.864366

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.864366

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Chloride

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	5	5.92	0.92	0.6052	0.556784
2	5	5	0	0.3164	0
3	5	5	0	0.1743	0
4	5	5	0	0.0561	0
5	5	5	0		
6	5	5	0		
7	5	5	0		
8	5.92	5	-0.92		

Sum of b values = 0.556784

Sample Standard Deviation = 0.325269

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Cobalt

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0005	0.000752	0.000252	0.6052	0.00015251
2	0.0005	0.0005	0	0.3164	0
3	0.0005	0.0005	0	0.1743	0
4	0.0005	0.0005	0	0.0561	0
5	0.0005	0.0005	0		
6	0.0005	0.0005	0		
7	0.0005	0.0005	0		
8	0.000752	0.0005	-0.000252		

Sum of b values = 0.00015251

Sample Standard Deviation = 8.90955e-005

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Cobalt

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0005	0.00254	0.00204	0.6052	0.00123461
2	0.0005	0.00109	0.00059	0.3164	0.000186676
3	0.0005	0.000769	0.000269	0.1743	4.68867e-005
4	0.0005	0.0005	0	0.0561	0
5	0.0005	0.0005	0		
6	0.000769	0.0005	-0.000269		
7	0.00109	0.0005	-0.00059		
8	0.00254	0.0005	-0.00204		

Sum of b values = 0.00146817

Sample Standard Deviation = 0.000710285

W Statistic = 0.610365

5% Critical value of 0.818 exceeds 0.610365

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.610365

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Cobalt

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0005	0.000731	0.000231	0.6052	0.000139801
2	0.0005	0.0005	0	0.3164	0
3	0.0005	0.0005	0	0.1743	0
4	0.0005	0.0005	0	0.0561	0
5	0.0005	0.0005	0		
6	0.0005	0.0005	0		
7	0.0005	0.0005	0		
8	0.000731	0.0005	-0.000231		

Sum of b values = 0.000139801

Sample Standard Deviation = 8.16708e-005

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Cobalt

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0005	0.00209	0.00159	0.6052	0.000962268
2	0.0005	0.00121	0.00071	0.3164	0.000224644
3	0.0005	0.000563	6.3e-005	0.1743	1.09809e-005
4	0.0005	0.0005	0	0.0561	0
5	0.0005	0.0005	0		
6	0.000563	0.0005	-6.3e-005		
7	0.00121	0.0005	-0.00071		
8	0.00209	0.0005	-0.00159		

Sum of b values = 0.00119789

Sample Standard Deviation = 0.000577952

W Statistic = 0.613698

5% Critical value of 0.818 exceeds 0.613698

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.613698

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Cobalt

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0005	0.00211	0.00161	0.6052	0.000974372
2	0.0005	0.000759	0.000259	0.3164	8.19476e-005
3	0.0005	0.0005	0	0.1743	0
4	0.0005	0.0005	0	0.0561	0
5	0.0005	0.0005	0		
6	0.0005	0.0005	0		
7	0.000759	0.0005	-0.000259		
8	0.00211	0.0005	-0.00161		

Sum of b values = 0.00105632

Sample Standard Deviation = 0.000563476

W Statistic = 0.502044

5% Critical value of 0.818 exceeds 0.502044

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.502044

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Fluoride

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.5	1	0.5	0.6052	0.3026
2	0.713	1	0.287	0.3164	0.0908068
3	1	1	0	0.1743	0
4	1	1	0	0.0561	0
5	1	1	0		
6	1	1	0		
7	1	0.713	-0.287		
8	1	0.5	-0.5		

Sum of b values = 0.393407

Sample Standard Deviation = 0.190843

W Statistic = 0.607061

5% Critical value of 0.818 exceeds 0.607061

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.607061

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Fluoride

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.279	1	0.721	0.6052	0.436349
2	0.5	1	0.5	0.3164	0.1582
3	0.5	1	0.5	0.1743	0.08715
4	1	1	0	0.0561	0
5	1	1	0		
6	1	0.5	-0.5		
7	1	0.5	-0.5		
8	1	0.279	-0.721		

Sum of b values = 0.681699

Sample Standard Deviation = 0.304633

W Statistic = 0.715373

5% Critical value of 0.818 exceeds 0.715373

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.715373

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Fluoride

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.5	1	0.5	0.6052	0.3026
2	0.721	1	0.279	0.3164	0.0882756
3	0.771	1	0.229	0.1743	0.0399147
4	1	1	0	0.0561	0
5	1	1	0		
6	1	0.771	-0.229		
7	1	0.721	-0.279		
8	1	0.5	-0.5		

Sum of b values = 0.43079

Sample Standard Deviation = 0.190216

W Statistic = 0.732725

5% Critical value of 0.818 exceeds 0.732725

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.732725

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Formaldehyde

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	10	20	10	0.6052	6.052
2	10	12	2	0.3164	0.6328
3	10	10	0	0.1743	0
4	10	10	0	0.0561	0
5	10	10	0		
6	10	10	0		
7	12	10	-2		
8	20	10	-10		

Sum of b values = 6.6848

Sample Standard Deviation = 3.5051

W Statistic = 0.519611

5% Critical value of 0.818 exceeds 0.519611

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.519611

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Formaldehyde

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	10	20	10	0.6052	6.052
2	10	13.8	3.8	0.3164	1.20232
3	10	10	0	0.1743	0
4	10	10	0	0.0561	0
5	10	10	0		
6	10	10	0		
7	13.8	10	-3.8		
8	20	10	-10		

Sum of b values = 7.25432

Sample Standard Deviation = 3.59831

W Statistic = 0.580627

5% Critical value of 0.818 exceeds 0.580627

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.580627

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Total Organic Halogens, Halides

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.04	0.185	0.145	0.6052	0.087754
2	0.04	0.06	0.02	0.3164	0.006328
3	0.04	0.0492	0.0092	0.1743	0.00160356
4	0.04	0.0458	0.0058	0.0561	0.00032538
5	0.0458	0.04	-0.0058		
6	0.0492	0.04	-0.0092		
7	0.06	0.04	-0.02		
8	0.185	0.04	-0.145		

Sum of b values = 0.0960109

Sample Standard Deviation = 0.0499904

W Statistic = 0.526951

5% Critical value of 0.818 exceeds 0.526951

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.526951

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Total Organic Halogens, Halides

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.04	0.119	0.079	0.6052	0.0478108
2	0.04	0.0971	0.0571	0.3164	0.0180664
3	0.04	0.06	0.02	0.1743	0.003486
4	0.04	0.0411	0.0011	0.0561	6.171e-005
5	0.0411	0.04	-0.0011		
6	0.06	0.04	-0.02		
7	0.0971	0.04	-0.0571		
8	0.119	0.04	-0.079		

Sum of b values = 0.0694249

Sample Standard Deviation = 0.031199

W Statistic = 0.707379

5% Critical value of 0.818 exceeds 0.707379

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.707379

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Total Organic Halogens, Halides

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.04	0.163	0.123	0.6052	0.0744396
2	0.04	0.138	0.098	0.3164	0.0310072
3	0.04	0.0861	0.0461	0.1743	0.00803523
4	0.06	0.0667	0.0067	0.0561	0.00037587
5	0.0667	0.06	-0.0067		
6	0.0861	0.04	-0.0461		
7	0.138	0.04	-0.098		
8	0.163	0.04	-0.123		

Sum of b values = 0.113858

Sample Standard Deviation = 0.0473019

W Statistic = 0.827696

5% Critical value of 0.818 is less than 0.827696

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.827696

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Total Organic Halogens, Halides

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.04	0.108	0.068	0.6052	0.0411536
2	0.04	0.0808	0.0408	0.3164	0.0129091
3	0.04	0.0688	0.0288	0.1743	0.00501984
4	0.04	0.06	0.02	0.0561	0.001122
5	0.06	0.04	-0.02		
6	0.0688	0.04	-0.0288		
7	0.0808	0.04	-0.0408		
8	0.108	0.04	-0.068		

Sum of b values = 0.0602046

Sample Standard Deviation = 0.0251094

W Statistic = 0.821277

5% Critical value of 0.818 is less than 0.821277

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.821277

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Total Organic Halogens, Halides

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.04	0.757	0.717	0.6052	0.433928
2	0.04	0.06	0.02	0.3164	0.006328
3	0.04	0.06	0.02	0.1743	0.003486
4	0.04	0.04	0	0.0561	0
5	0.04	0.04	0		
6	0.06	0.04	-0.02		
7	0.06	0.04	-0.02		
8	0.757	0.04	-0.717		

Sum of b values = 0.443742

Sample Standard Deviation = 0.25164

W Statistic = 0.444227

5% Critical value of 0.818 exceeds 0.444227

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.444227

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Iron

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.1	0.235	0.135	0.6052	0.081702
2	0.1	0.1	0	0.3164	0
3	0.1	0.1	0	0.1743	0
4	0.1	0.1	0	0.0561	0
5	0.1	0.1	0		
6	0.1	0.1	0		
7	0.1	0.1	0		
8	0.235	0.1	-0.135		

Sum of b values = 0.081702

Sample Standard Deviation = 0.0477297

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Manganese

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0753	0.0934	0.0181	0.6052	0.0109541
2	0.0757	0.085	0.0093	0.3164	0.00294252
3	0.0781	0.0829	0.0048	0.1743	0.00083664
4	0.0808	0.0821	0.0013	0.0561	7.293e-005
5	0.0821	0.0808	-0.0013		
6	0.0829	0.0781	-0.0048		
7	0.085	0.0757	-0.0093		
8	0.0934	0.0753	-0.0181		

Sum of b values = 0.0148062

Sample Standard Deviation = 0.0058566

W Statistic = 0.913057

5% Critical value of 0.818 is less than 0.913057

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.913057

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Manganese

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0115	0.205	0.1935	0.6052	0.117106
2	0.0237	0.088	0.0643	0.3164	0.0203445
3	0.0482	0.0692	0.021	0.1743	0.0036603
4	0.0546	0.0601	0.0055	0.0561	0.00030855
5	0.0601	0.0546	-0.0055		
6	0.0692	0.0482	-0.021		
7	0.088	0.0237	-0.0643		
8	0.205	0.0115	-0.1935		

Sum of b values = 0.14142

Sample Standard Deviation = 0.0596729

W Statistic = 0.802355

5% Critical value of 0.818 exceeds 0.802355

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 is less than 0.802355

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Manganese

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.01	0.0303	0.0203	0.6052	0.0122856
2	0.01	0.01	0	0.3164	0
3	0.01	0.01	0	0.1743	0
4	0.01	0.01	0	0.0561	0
5	0.01	0.01	0		
6	0.01	0.01	0		
7	0.01	0.01	0		
8	0.0303	0.01	-0.0203		

Sum of b values = 0.0122856

Sample Standard Deviation = 0.00717713

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Manganese

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0608	0.14	0.0792	0.6052	0.0479318
2	0.0739	0.1	0.0261	0.3164	0.00825804
3	0.0764	0.0996	0.0232	0.1743	0.00404376
4	0.0912	0.0923	0.0011	0.0561	6.171e-005
5	0.0923	0.0912	-0.0011		
6	0.0996	0.0764	-0.0232		
7	0.1	0.0739	-0.0261		
8	0.14	0.0608	-0.0792		

Sum of b values = 0.0602954

Sample Standard Deviation = 0.0238162

W Statistic = 0.915636

5% Critical value of 0.818 is less than 0.915636

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.915636

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Manganese

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.0538	0.12	0.0662	0.6052	0.0400642
2	0.0595	0.088	0.0285	0.3164	0.0090174
3	0.0689	0.0806	0.0117	0.1743	0.00203931
4	0.0695	0.0754	0.0059	0.0561	0.00033099
5	0.0754	0.0695	-0.0059		
6	0.0806	0.0689	-0.0117		
7	0.088	0.0595	-0.0285		
8	0.12	0.0538	-0.0662		

Sum of b values = 0.0514519

Sample Standard Deviation = 0.0205352

W Statistic = 0.896825

5% Critical value of 0.818 is less than 0.896825

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.896825

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Molybdenum

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.002	0.00264	0.00064	0.6052	0.000387328
2	0.002	0.00233	0.00033	0.3164	0.000104412
3	0.002	0.0021	0.0001	0.1743	1.743e-005
4	0.002	0.00203	3e-005	0.0561	1.683e-006
5	0.00203	0.002	-3e-005		
6	0.0021	0.002	-0.0001		
7	0.00233	0.002	-0.00033		
8	0.00264	0.002	-0.00064		

Sum of b values = 0.000510853

Sample Standard Deviation = 0.000232425

W Statistic = 0.690125

5% Critical value of 0.818 exceeds 0.690125

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.690125

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Molybdenum

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.002	0.00458	0.00258	0.6052	0.00156142
2	0.002	0.00318	0.00118	0.3164	0.000373352
3	0.002	0.0024	0.0004	0.1743	6.972e-005
4	0.00202	0.00225	0.00023	0.0561	1.2903e-005
5	0.00225	0.00202	-0.00023		
6	0.0024	0.002	-0.0004		
7	0.00318	0.002	-0.00118		
8	0.00458	0.002	-0.00258		

Sum of b values = 0.00201739

Sample Standard Deviation = 0.000911716

W Statistic = 0.69946

5% Critical value of 0.818 exceeds 0.69946

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.69946

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Molybdenum

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.00213	0.00557	0.00344	0.6052	0.00208189
2	0.00219	0.00397	0.00178	0.3164	0.000563192
3	0.00257	0.0035	0.00093	0.1743	0.000162099
4	0.00284	0.00296	0.00012	0.0561	6.732e-006
5	0.00296	0.00284	-0.00012		
6	0.0035	0.00257	-0.00093		
7	0.00397	0.00219	-0.00178		
8	0.00557	0.00213	-0.00344		

Sum of b values = 0.00281391

Sample Standard Deviation = 0.00113684

W Statistic = 0.875238

5% Critical value of 0.818 is less than 0.875238

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.875238

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Molybdenum

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.002	0.0033	0.0013	0.6052	0.00078676
2	0.00218	0.00291	0.00073	0.3164	0.000230972
3	0.00222	0.00242	0.0002	0.1743	3.486e-005
4	0.00229	0.00234	5e-005	0.0561	2.805e-006
5	0.00234	0.00229	-5e-005		
6	0.00242	0.00222	-0.0002		
7	0.00291	0.00218	-0.00073		
8	0.0033	0.002	-0.0013		

Sum of b values = 0.0010554

Sample Standard Deviation = 0.000431037

W Statistic = 0.856455

5% Critical value of 0.818 is less than 0.856455

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.856455

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Molybdenum

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.002	0.00266	0.00066	0.6052	0.000399432
2	0.002	0.002	0	0.3164	0
3	0.002	0.002	0	0.1743	0
4	0.002	0.002	0	0.0561	0
5	0.002	0.002	0		
6	0.002	0.002	0		
7	0.002	0.002	0		
8	0.00266	0.002	-0.00066		

Sum of b values = 0.000399432

Sample Standard Deviation = 0.000233345

W Statistic = 0.418591

5% Critical value of 0.818 exceeds 0.418591

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.418591

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Sulfate

Location: MW1

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	924	1050	126	0.6052	76.2552
2	927	1010	83	0.3164	26.2612
3	928	976	48	0.1743	8.3664
4	943	950	7	0.0561	0.3927
5	950	943	-7		
6	976	928	-48		
7	1010	927	-83		
8	1050	924	-126		

Sum of b values = 111.276

Sample Standard Deviation = 45.6008

W Statistic = 0.850662

5% Critical value of 0.818 is less than 0.850662

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.850662

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Sulfate

Location: MW2

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	12.3	20.1	7.8	0.6052	4.72056
2	13.3	19	5.7	0.3164	1.80348
3	14.3	16.5	2.2	0.1743	0.38346
4	14.4	14.4	0	0.0561	0
5	14.4	14.4	0		
6	16.5	14.3	-2.2		
7	19	13.3	-5.7		
8	20.1	12.3	-7.8		

Sum of b values = 6.9075

Sample Standard Deviation = 2.7604

W Statistic = 0.894538

5% Critical value of 0.818 is less than 0.894538

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.894538

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Sulfate

Location: MW3

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	28.5	44.5	16	0.6052	9.6832
2	30.6	44.4	13.8	0.3164	4.36632
3	32.6	41.6	9	0.1743	1.5687
4	34.7	39.7	5	0.0561	0.2805
5	39.7	34.7	-5		
6	41.6	32.6	-9		
7	44.4	30.6	-13.8		
8	44.5	28.5	-16		

Sum of b values = 15.8987

Sample Standard Deviation = 6.2937

W Statistic = 0.91162

5% Critical value of 0.818 is less than 0.91162

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.91162

Data is normally distributed at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Sulfate

Location: MW4

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	158	234	76	0.6052	45.9952
2	159	177	18	0.3164	5.6952
3	160	174	14	0.1743	2.4402
4	161	168	7	0.0561	0.3927
5	168	161	-7		
6	174	160	-14		
7	177	159	-18		
8	234	158	-76		

Sum of b values = 54.5233

Sample Standard Deviation = 25.3289

W Statistic = 0.661962

5% Critical value of 0.818 exceeds 0.661962

Evidence of non-normality at 95% level of significance

1% Critical value of 0.749 exceeds 0.661962

Evidence of non-normality at 99% level of significance

Shapiro-Wilks Test of Normality

Parameter: Sulfate

Location: MW5

Normality Test of Parameter Concentrations

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

K = 4 for 8 measurements

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	18.1	24.7	6.6	0.6052	3.99432
2	18.5	23.3	4.8	0.3164	1.51872
3	18.8	23.1	4.3	0.1743	0.74949
4	20.8	22	1.2	0.0561	0.06732
5	22	20.8	-1.2		
6	23.1	18.8	-4.3		
7	23.3	18.5	-4.8		
8	24.7	18.1	-6.6		

Sum of b values = 6.32985

Sample Standard Deviation = 2.49911

W Statistic = 0.916472

5% Critical value of 0.818 is less than 0.916472

Data is normally distributed at 95% level of significance

1% Critical value of 0.749 is less than 0.916472

Data is normally distributed at 99% level of significance

APPENDIX C

Outlier Tests (Dixon's)

Dixon's Test for Outliers

Parameter: Barium

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.0909091	0.444444	0.683	None

Loc.	Date	Conc.	Outlier
MW1	3/11/2022	0.0236	FALSE
	9/12/2022	0.0231	FALSE
	4/11/2023	0.0233	FALSE
	9/29/2023	0.0207	FALSE
	3/4/2024	0.021	FALSE
	7/29/2024	0.0203	FALSE
	2/4/2025	0.021	FALSE
	7/10/2025	0.0179	FALSE

Dixon's Test for Outliers

Parameter: Barium

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.178571	0.230769	0.683	None

Loc.	Date	Conc.	Outlier
MW2	3/18/2022	0.072	FALSE
	9/16/2022	0.0582	FALSE
	4/25/2023	0.0727	FALSE
	9/25/2023	0.118	FALSE
	3/18/2024	0.11	FALSE
	8/5/2024	0.118	FALSE
	2/10/2025	0.114	FALSE
	7/17/2025	0.128	FALSE

Dixon's Test for Outliers

Parameter: Barium

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.116279	0.283019	0.683	None

Loc.	Date	Conc.	Outlier
MW3	4/8/2022	0.295	FALSE
	9/26/2022	0.282	FALSE
	5/9/2023	0.32	FALSE
	9/1/2023	0.325	FALSE
	2/27/2024	0.267	FALSE
	8/12/2024	0.32	FALSE
	2/17/2025	0.309	FALSE
	8/12/2025	0.32	FALSE

Dixon's Test for Outliers

Parameter: Barium

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.352941	0.352941	0.683	None

Loc.	Date	Conc.	Outlier
MW4	3/25/2022	0.125	FALSE
	9/21/2022	0.129	FALSE
	4/17/2023	0.125	FALSE
	9/11/2023	0.135	FALSE
	3/25/2024	0.112	FALSE
	7/23/2024	0.118	FALSE
	2/24/2025	0.125	FALSE
	7/24/2025	0.118	FALSE

Dixon's Test for Outliers

Parameter: Barium

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.642702	0.136842	0.683	None

Loc.	Date	Conc.	Outlier
MW5	4/1/2022	0.126	FALSE
	9/30/2022	0.0965	FALSE
	5/2/2023	0.0775	FALSE
	9/18/2023	0.0955	FALSE
	3/11/2024	0.0801	FALSE
	8/19/2024	0.0941	FALSE
	3/3/2025	0.0836	FALSE
	7/31/2025	0.0841	FALSE

Dixon's Test for Outliers

Parameter: Boron

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.04	0.0588235	0.683	None

Loc.	Date	Conc.	Outlier
MW1	3/11/2022	0.168	FALSE
	9/12/2022	0.135	FALSE
	4/11/2023	0.117	FALSE
	9/29/2023	0.17	FALSE
	3/4/2024	0.127	FALSE
	7/29/2024	0.12	FALSE
	2/4/2025	0.128	FALSE
	7/10/2025	0.144	FALSE

Dixon's Test for Outliers

Parameter: Boron

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.288136	0.207547	0.683	None

Loc.	Date	Conc.	Outlier
MW5	4/1/2022	0.23	FALSE
	9/30/2022	0.191	FALSE
	5/2/2023	0.188	FALSE
	9/18/2023	0.213	FALSE
	3/11/2024	0.16	FALSE
	8/19/2024	0.176	FALSE
	3/3/2025	0.171	FALSE
	7/31/2025	0.185	FALSE

Dixon's Test for Outliers

Parameter: Chloride

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.370787	0.633987	0.683	None

Loc.	Date	Conc.	Outlier
MW1	3/11/2022	6.25	FALSE
	9/12/2022	6.86	FALSE
	4/11/2023	ND<5	FALSE
	9/29/2023	6.38	FALSE
	3/4/2024	6.53	FALSE
	7/29/2024	5.97	FALSE
	2/4/2025	6.33	FALSE
	7/10/2025	6.02	FALSE

Dixon's Test for Outliers

Parameter: Chloride

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.630597	0	0.683	None

Loc.	Date	Conc.	Outlier
MW2	3/18/2022	ND<5	FALSE
	9/16/2022	ND<5	FALSE
	4/25/2023	ND<5	FALSE
	9/25/2023	5.99	FALSE
	3/18/2024	ND<5	FALSE
	8/5/2024	7.68	FALSE
	2/10/2025	5.39	FALSE
	7/17/2025	5.07	FALSE

Dixon's Test for Outliers

Parameter: Chloride

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.0628141	0.0132275	0.683	None

Loc.	Date	Conc.	Outlier
MW3	4/8/2022	60.4	FALSE
	9/26/2022	61.4	FALSE
	5/9/2023	136	FALSE
	9/1/2023	107	FALSE
	2/27/2024	141	FALSE
	8/12/2024	114	FALSE
	2/17/2025	110	FALSE
	8/12/2025	117	FALSE

Dixon's Test for Outliers

Parameter: Cobalt

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.710784	0	0.683	0.00254
2	0.544068	0	0.637	None

Loc.	Date	Conc.	Outlier
MW2	3/18/2022	0.00254	TRUE
	9/16/2022	0.000769	FALSE
	4/25/2023	0.00109	FALSE
	9/25/2023	ND<0.0005	FALSE
	3/18/2024	ND<0.0005	FALSE
	8/5/2024	ND<0.0005	FALSE
	2/10/2025	ND<0.0005	FALSE
	7/17/2025	ND<0.0005	FALSE

Dixon's Test for Outliers

Parameter: Cobalt

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.553459	0	0.683	None

Loc.	Date	Conc.	Outlier
MW4	3/25/2022	ND<0.0005	FALSE
	9/21/2022	0.00209	FALSE
	4/17/2023	ND<0.0005	FALSE
	9/11/2023	0.00121	FALSE
	3/25/2024	ND<0.0005	FALSE
	7/23/2024	ND<0.0005	FALSE
	2/24/2025	0.000563	FALSE
	7/24/2025	ND<0.0005	FALSE

Dixon's Test for Outliers

Parameter: Total Organic Halogens, Halides

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.862069	0	0.683	0.185
2	0.54	0	0.637	None

Loc.	Date	Conc.	Outlier
MW1	3/11/2022	ND<0.04	FALSE
	9/12/2022	0.0492	FALSE
	4/11/2023	ND<0.04	FALSE
	9/29/2023	ND<0.04	FALSE
	3/4/2024	ND<0.04	FALSE
	7/29/2024	0.0458	FALSE
	2/4/2025	0.185	TRUE
	7/10/2025	ND<0.06	FALSE

Dixon's Test for Outliers

Parameter: Total Organic Halogens, Halides

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.277215	0	0.683	None

Loc.	Date	Conc.	Outlier
MW2	3/18/2022	ND<0.04	FALSE
	9/16/2022	0.119	FALSE
	4/25/2023	ND<0.04	FALSE
	9/25/2023	ND<0.04	FALSE
	3/18/2024	ND<0.04	FALSE
	8/5/2024	0.0411	FALSE
	2/10/2025	0.0971	FALSE
	7/17/2025	ND<0.06	FALSE

Dixon's Test for Outliers

Parameter: Total Organic Halogens, Halides

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.203252	0	0.683	None

Loc.	Date	Conc.	Outlier
MW3	4/8/2022	ND<0.04	FALSE
	9/26/2022	0.0667	FALSE
	5/9/2023	ND<0.04	FALSE
	9/1/2023	0.0861	FALSE
	2/27/2024	ND<0.04	FALSE
	8/12/2024	0.138	FALSE
	2/17/2025	0.163	FALSE
	8/12/2025	ND<0.06	FALSE

Dixon's Test for Outliers

Parameter: Total Organic Halogens, Halides

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.4	0	0.683	None

Loc.	Date	Conc.	Outlier
MW4	3/25/2022	ND<0.04	FALSE
	9/21/2022	0.0688	FALSE
	4/17/2023	ND<0.04	FALSE
	9/11/2023	ND<0.04	FALSE
	3/25/2024	0.0808	FALSE
	7/23/2024	ND<0.04	FALSE
	2/24/2025	0.108	FALSE
	7/24/2025	ND<0.06	FALSE

Dixon's Test for Outliers

Parameter: Manganese

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.474576	0.0412371	0.683	None

Loc.	Date	Conc.	Outlier
MW1	3/11/2022	0.0829	FALSE
	9/12/2022	0.085	FALSE
	4/11/2023	0.0821	FALSE
	9/29/2023	0.0753	FALSE
	3/4/2024	0.0808	FALSE
	7/29/2024	0.0757	FALSE
	2/4/2025	0.0781	FALSE
	7/10/2025	0.0934	FALSE

Dixon's Test for Outliers

Parameter: Manganese

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.645339	0.159477	0.683	None

Loc.	Date	Conc.	Outlier
MW2	3/18/2022	0.205	FALSE
	9/16/2022	0.0601	FALSE
	4/25/2023	0.088	FALSE
	9/25/2023	0.0237	FALSE
	3/18/2024	0.0115	FALSE
	8/5/2024	0.0692	FALSE
	2/10/2025	0.0546	FALSE
	7/17/2025	0.0482	FALSE

Dixon's Test for Outliers

Parameter: Manganese

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.605144	0.334184	0.683	None

Loc.	Date	Conc.	Outlier
MW4	3/25/2022	0.0923	FALSE
	9/21/2022	0.14	FALSE
	4/17/2023	0.0739	FALSE
	9/11/2023	0.0608	FALSE
	3/25/2024	0.0764	FALSE
	7/23/2024	0.0912	FALSE
	2/24/2025	0.1	FALSE
	7/24/2025	0.0996	FALSE

Dixon's Test for Outliers

Parameter: Manganese

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.528926	0.166667	0.683	None

Loc.	Date	Conc.	Outlier
MW5	4/1/2022	0.12	FALSE
	9/30/2022	0.0595	FALSE
	5/2/2023	0.0538	FALSE
	9/18/2023	0.0806	FALSE
	3/11/2024	0.0695	FALSE
	8/19/2024	0.0754	FALSE
	3/3/2025	0.0689	FALSE
	7/31/2025	0.088	FALSE

Dixon's Test for Outliers

Parameter: Molybdenum

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.484375	0	0.683	None

Loc.	Date	Conc.	Outlier
MW1	3/11/2022	ND<0.002	FALSE
	9/12/2022	0.0021	FALSE
	4/11/2023	0.00203	FALSE
	9/29/2023	0.00264	FALSE
	3/4/2024	ND<0.002	FALSE
	7/29/2024	0.00233	FALSE
	2/4/2025	ND<0.002	FALSE
	7/10/2025	ND<0.002	FALSE

Dixon's Test for Outliers

Parameter: Molybdenum

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.542636	0	0.683	None

Loc.	Date	Conc.	Outlier
MW2	3/18/2022	0.0024	FALSE
	9/16/2022	0.00318	FALSE
	4/25/2023	0.00458	FALSE
	9/25/2023	0.00225	FALSE
	3/18/2024	ND<0.002	FALSE
	8/5/2024	0.00202	FALSE
	2/10/2025	ND<0.002	FALSE
	7/17/2025	ND<0.002	FALSE

Dixon's Test for Outliers

Parameter: Molybdenum

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.473373	0.0326087	0.683	None

Loc.	Date	Conc.	Outlier
MW3	4/8/2022	0.00284	FALSE
	9/26/2022	0.00397	FALSE
	5/9/2023	0.00557	FALSE
	9/1/2023	0.0035	FALSE
	2/27/2024	0.00296	FALSE
	8/12/2024	0.00213	FALSE
	2/17/2025	0.00257	FALSE
	8/12/2025	0.00219	FALSE

Dixon's Test for Outliers

Parameter: Molybdenum

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...

1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.348214	0.197802	0.683	None

Loc.	Date	Conc.	Outlier
MW4	3/25/2022	ND<0.002	FALSE
	9/21/2022	0.00229	FALSE
	4/17/2023	0.00291	FALSE
	9/11/2023	0.00242	FALSE
	3/25/2024	0.00222	FALSE
	7/23/2024	0.00234	FALSE
	2/24/2025	0.00218	FALSE
	7/24/2025	0.0033	FALSE

Dixon's Test for Outliers

Parameter: Sulfate

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.325203	0.0348837	0.683	None

Loc.	Date	Conc.	Outlier
MW1	3/11/2022	976	FALSE
	9/12/2022	928	FALSE
	4/11/2023	924	FALSE
	9/29/2023	927	FALSE
	3/4/2024	1050	FALSE
	7/29/2024	1010	FALSE
	2/4/2025	950	FALSE
	7/10/2025	943	FALSE

Dixon's Test for Outliers

Parameter: Sulfate

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.161765	0.149254	0.683	None

Loc.	Date	Conc.	Outlier
MW2	3/18/2022	20.1	FALSE
	9/16/2022	14.4	FALSE
	4/25/2023	16.5	FALSE
	9/25/2023	14.3	FALSE
	3/18/2024	14.4	FALSE
	8/5/2024	19	FALSE
	2/10/2025	13.3	FALSE
	7/17/2025	12.3	FALSE

Dixon's Test for Outliers

Parameter: Sulfate

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.00719424	0.132075	0.683	None

Loc.	Date	Conc.	Outlier
MW3	4/8/2022	28.5	FALSE
	9/26/2022	30.6	FALSE
	5/9/2023	32.6	FALSE
	9/1/2023	34.7	FALSE
	2/27/2024	39.7	FALSE
	8/12/2024	44.4	FALSE
	2/17/2025	41.6	FALSE
	8/12/2025	44.5	FALSE

Dixon's Test for Outliers

Parameter: Sulfate

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.76	0.0526316	0.683	234
2	0.157895	0.0526316	0.637	None

Loc.	Date	Conc.	Outlier
MW4	3/25/2022	158	FALSE
	9/21/2022	161	FALSE
	4/17/2023	174	FALSE
	9/11/2023	160	FALSE
	3/25/2024	177	FALSE
	7/23/2024	234	TRUE
	2/24/2025	159	FALSE
	7/24/2025	168	FALSE

Dixon's Test for Outliers

Parameter: Sulfate

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

For 8 Measurements...
1% Level of Significance

Iteration	Highest	Lowest	Critical	Outlier
1	0.225806	0.0769231	0.683	None

Loc.	Date	Conc.	Outlier
MW5	4/1/2022	18.1	FALSE
	9/30/2022	18.5	FALSE
	5/2/2023	24.7	FALSE
	9/18/2023	20.8	FALSE
	3/11/2024	22	FALSE
	8/19/2024	23.3	FALSE
	3/3/2025	18.8	FALSE
	7/31/2025	23.1	FALSE

APPENDIX D

Mann-Kendall Trends

Mann-Kendall Trend Analysis

Parameter: Aluminum, total

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.05	ND<0.05	0	0	0
ND<0.05	ND<0.05	0	0	0
ND<0.05	ND<0.05	0	0	0
ND<0.05	ND<0.05	0	0	0
ND<0.05	ND<0.05	0	0	0
0.111	ND<0.05	0.061	1	0
ND<0.05	ND<0.05	0	1	0
ND<0.05	ND<0.05	0	1	0
ND<0.05	ND<0.05	0	1	0
ND<0.05	ND<0.05	0	1	0
0.111	ND<0.05	0.061	2	0
ND<0.05	ND<0.05	0	2	0
ND<0.05	ND<0.05	0	2	0
ND<0.05	ND<0.05	0	2	0
0.111	ND<0.05	0.061	3	0
ND<0.05	ND<0.05	0	3	0
ND<0.05	ND<0.05	0	3	0
ND<0.05	ND<0.05	0	3	0
0.111	ND<0.05	0.061	4	0
ND<0.05	ND<0.05	0	4	0
ND<0.05	ND<0.05	0	4	0
0.111	ND<0.05	0.061	5	0
ND<0.05	ND<0.05	0	5	0
0.111	ND<0.05	0.061	6	0
ND<0.05	ND<0.05	0	6	0
ND<0.05	0.111	-0.061	6	1

S Statistic = 6 - 1 = 5

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |5|$ is 0.634

0.634 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Ammonia Nitrogen

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.529	ND<0.5	0.029	1	0
ND<0.5	ND<0.5	0	1	0
ND<0.5	ND<0.5	0	1	0
ND<0.5	ND<0.5	0	1	0
0.508	ND<0.5	0.008	2	0
ND<0.5	ND<0.5	0	2	0
0.517	ND<0.5	0.017	3	0
ND<0.5	0.529	-0.029	3	1
ND<0.5	0.529	-0.029	3	2
ND<0.5	0.529	-0.029	3	3
0.508	0.529	-0.021	3	4
ND<0.5	0.529	-0.029	3	5
0.517	0.529	-0.012	3	6
ND<0.5	ND<0.5	0	3	6
ND<0.5	ND<0.5	0	3	6
0.508	ND<0.5	0.008	4	6
ND<0.5	ND<0.5	0	4	6
0.517	ND<0.5	0.017	5	6
ND<0.5	ND<0.5	0	5	6
0.508	ND<0.5	0.008	6	6
ND<0.5	ND<0.5	0	6	6
0.517	ND<0.5	0.017	7	6
0.508	ND<0.5	0.008	8	6
ND<0.5	ND<0.5	0	8	6
0.517	ND<0.5	0.017	9	6
ND<0.5	0.508	-0.008	9	7
0.517	0.508	0.009	10	7
0.517	ND<0.5	0.017	11	7

S Statistic = 11 - 7 = 4

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |4|$ is 0.72

0.72 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Barium

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0231	0.0236	-0.0005	0	1
0.0233	0.0236	-0.0003	0	2
0.0207	0.0236	-0.0029	0	3
0.021	0.0236	-0.0026	0	4
0.0203	0.0236	-0.0033	0	5
0.021	0.0236	-0.0026	0	6
0.0179	0.0236	-0.0057	0	7
0.0233	0.0231	0.0002	1	7
0.0207	0.0231	-0.0024	1	8
0.021	0.0231	-0.0021	1	9
0.0203	0.0231	-0.0028	1	10
0.021	0.0231	-0.0021	1	11
0.0179	0.0231	-0.0052	1	12
0.0207	0.0233	-0.0026	1	13
0.021	0.0233	-0.0023	1	14
0.0203	0.0233	-0.003	1	15
0.021	0.0233	-0.0023	1	16
0.0179	0.0233	-0.0054	1	17
0.021	0.0207	0.0003	2	17
0.0203	0.0207	-0.0004	2	18
0.021	0.0207	0.0003	3	18
0.0179	0.0207	-0.0028	3	19
0.0203	0.021	-0.0007	3	20
0.021	0.021	0	3	20
0.0179	0.021	-0.0031	3	21
0.021	0.0203	0.0007	4	21
0.0179	0.0203	-0.0024	4	22
0.0179	0.021	-0.0031	4	23

S Statistic = 4 - 23 = -19

Comparing at 95% confidence level (downward trend)

Probability of obtaining S >= 19 is 0.01155

S < 0 and 0.01155 < 0.05 indicating a downward trend

Mann-Kendall Trend Analysis

Parameter: Barium

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0582	0.072	-0.0138	0	1
0.0727	0.072	0.0007	1	1
0.118	0.072	0.046	2	1
0.11	0.072	0.038	3	1
0.118	0.072	0.046	4	1
0.114	0.072	0.042	5	1
0.128	0.072	0.056	6	1
0.0727	0.0582	0.0145	7	1
0.118	0.0582	0.0598	8	1
0.11	0.0582	0.0518	9	1
0.118	0.0582	0.0598	10	1
0.114	0.0582	0.0558	11	1
0.128	0.0582	0.0698	12	1
0.118	0.0727	0.0453	13	1
0.11	0.0727	0.0373	14	1
0.118	0.0727	0.0453	15	1
0.114	0.0727	0.0413	16	1
0.128	0.0727	0.0553	17	1
0.11	0.118	-0.008	17	2
0.118	0.118	0	17	2
0.114	0.118	-0.004	17	3
0.128	0.118	0.01	18	3
0.118	0.11	0.008	19	3
0.114	0.11	0.004	20	3
0.128	0.11	0.018	21	3
0.114	0.118	-0.004	21	4
0.128	0.118	0.01	22	4
0.128	0.114	0.014	23	4

S Statistic = 23 - 4 = 19

Comparing at 95% confidence level (upward trend)

Probability of obtaining S >= 19 is 0.01155

S > 0 and 0.01155 < 0.05 indicating an upward trend

Mann-Kendall Trend Analysis

Parameter: Barium

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.282	0.295	-0.013	0	1
0.32	0.295	0.025	1	1
0.325	0.295	0.03	2	1
0.267	0.295	-0.028	2	2
0.32	0.295	0.025	3	2
0.309	0.295	0.014	4	2
0.32	0.295	0.025	5	2
0.32	0.282	0.038	6	2
0.325	0.282	0.043	7	2
0.267	0.282	-0.015	7	3
0.32	0.282	0.038	8	3
0.309	0.282	0.027	9	3
0.32	0.282	0.038	10	3
0.325	0.32	0.005	11	3
0.267	0.32	-0.053	11	4
0.32	0.32	0	11	4
0.309	0.32	-0.011	11	5
0.32	0.32	0	11	5
0.267	0.325	-0.058	11	6
0.32	0.325	-0.005	11	7
0.309	0.325	-0.016	11	8
0.32	0.325	-0.005	11	9
0.32	0.267	0.053	12	9
0.309	0.267	0.042	13	9
0.32	0.267	0.053	14	9
0.309	0.32	-0.011	14	10
0.32	0.32	0	14	10
0.32	0.309	0.011	15	10

S Statistic = 15 - 10 = 5

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |5|$ is 0.634

0.634 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Barium

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.129	0.125	0.004	1	0
0.125	0.125	0	1	0
0.135	0.125	0.01	2	0
0.112	0.125	-0.013	2	1
0.118	0.125	-0.007	2	2
0.125	0.125	0	2	2
0.118	0.125	-0.007	2	3
0.125	0.129	-0.004	2	4
0.135	0.129	0.006	3	4
0.112	0.129	-0.017	3	5
0.118	0.129	-0.011	3	6
0.125	0.129	-0.004	3	7
0.118	0.129	-0.011	3	8
0.135	0.125	0.01	4	8
0.112	0.125	-0.013	4	9
0.118	0.125	-0.007	4	10
0.125	0.125	0	4	10
0.118	0.125	-0.007	4	11
0.112	0.135	-0.023	4	12
0.118	0.135	-0.017	4	13
0.125	0.135	-0.01	4	14
0.118	0.135	-0.017	4	15
0.118	0.112	0.006	5	15
0.125	0.112	0.013	6	15
0.118	0.112	0.006	7	15
0.125	0.118	0.007	8	15
0.118	0.118	0	8	15
0.118	0.125	-0.007	8	16

S Statistic = 8 - 16 = -8

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-8|$ is 0.398

0.398 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Barium

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0965	0.126	-0.0295	0	1
0.0775	0.126	-0.0485	0	2
0.0955	0.126	-0.0305	0	3
0.0801	0.126	-0.0459	0	4
0.0941	0.126	-0.0319	0	5
0.0836	0.126	-0.0424	0	6
0.0841	0.126	-0.0419	0	7
0.0775	0.0965	-0.019	0	8
0.0955	0.0965	-0.001	0	9
0.0801	0.0965	-0.0164	0	10
0.0941	0.0965	-0.0024	0	11
0.0836	0.0965	-0.0129	0	12
0.0841	0.0965	-0.0124	0	13
0.0955	0.0775	0.018	1	13
0.0801	0.0775	0.0026	2	13
0.0941	0.0775	0.0166	3	13
0.0836	0.0775	0.0061	4	13
0.0841	0.0775	0.0066	5	13
0.0801	0.0955	-0.0154	5	14
0.0941	0.0955	-0.0014	5	15
0.0836	0.0955	-0.0119	5	16
0.0841	0.0955	-0.0114	5	17
0.0941	0.0801	0.014	6	17
0.0836	0.0801	0.0035	7	17
0.0841	0.0801	0.004	8	17
0.0836	0.0941	-0.0105	8	18
0.0841	0.0941	-0.01	8	19
0.0841	0.0836	0.0005	9	19

S Statistic = 9 - 19 = -10

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-10|$ is 0.276

0.276 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Boron

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.135	0.168	-0.033	0	1
0.117	0.168	-0.051	0	2
0.17	0.168	0.002	1	2
0.127	0.168	-0.041	1	3
0.12	0.168	-0.048	1	4
0.128	0.168	-0.04	1	5
0.144	0.168	-0.024	1	6
0.117	0.135	-0.018	1	7
0.17	0.135	0.035	2	7
0.127	0.135	-0.008	2	8
0.12	0.135	-0.015	2	9
0.128	0.135	-0.007	2	10
0.144	0.135	0.009	3	10
0.17	0.117	0.053	4	10
0.127	0.117	0.01	5	10
0.12	0.117	0.003	6	10
0.128	0.117	0.011	7	10
0.144	0.117	0.027	8	10
0.127	0.17	-0.043	8	11
0.12	0.17	-0.05	8	12
0.128	0.17	-0.042	8	13
0.144	0.17	-0.026	8	14
0.12	0.127	-0.007	8	15
0.128	0.127	0.001	9	15
0.144	0.127	0.017	10	15
0.128	0.12	0.008	11	15
0.144	0.12	0.024	12	15
0.144	0.128	0.016	13	15

S Statistic = 13 - 15 = -2

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-2|$ is 0.904

0.904 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Boron

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
0.143	ND<0.1	0.043	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
0.143	ND<0.1	0.043	2	0
ND<0.1	ND<0.1	0	2	0
ND<0.1	ND<0.1	0	2	0
ND<0.1	ND<0.1	0	2	0
ND<0.1	ND<0.1	0	2	0
0.143	ND<0.1	0.043	3	0
ND<0.1	ND<0.1	0	3	0
ND<0.1	ND<0.1	0	3	0
ND<0.1	ND<0.1	0	3	0
0.143	ND<0.1	0.043	4	0
ND<0.1	ND<0.1	0	4	0
ND<0.1	ND<0.1	0	4	0
0.143	ND<0.1	0.043	5	0
ND<0.1	ND<0.1	0	5	0
0.143	ND<0.1	0.043	6	0
ND<0.1	ND<0.1	0	6	0
ND<0.1	0.143	-0.043	6	1

S Statistic = 6 - 1 = 5

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |5|$ is 0.634

0.634 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Boron

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.191	0.23	-0.039	0	1
0.188	0.23	-0.042	0	2
0.213	0.23	-0.017	0	3
0.16	0.23	-0.07	0	4
0.176	0.23	-0.054	0	5
0.171	0.23	-0.059	0	6
0.185	0.23	-0.045	0	7
0.188	0.191	-0.003	0	8
0.213	0.191	0.022	1	8
0.16	0.191	-0.031	1	9
0.176	0.191	-0.015	1	10
0.171	0.191	-0.02	1	11
0.185	0.191	-0.006	1	12
0.213	0.188	0.025	2	12
0.16	0.188	-0.028	2	13
0.176	0.188	-0.012	2	14
0.171	0.188	-0.017	2	15
0.185	0.188	-0.003	2	16
0.16	0.213	-0.053	2	17
0.176	0.213	-0.037	2	18
0.171	0.213	-0.042	2	19
0.185	0.213	-0.028	2	20
0.176	0.16	0.016	3	20
0.171	0.16	0.011	4	20
0.185	0.16	0.025	5	20
0.171	0.176	-0.005	5	21
0.185	0.176	0.009	6	21
0.185	0.171	0.014	7	21

S Statistic = 7 - 21 = -14

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-14|$ is 0.108

0.108 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Chloride

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
6.86	6.25	0.61	1	0
ND<5	6.25	-1.25	1	1
6.38	6.25	0.13	2	1
6.53	6.25	0.28	3	1
5.97	6.25	-0.28	3	2
6.33	6.25	0.08	4	2
6.02	6.25	-0.23	4	3
ND<5	6.86	-1.86	4	4
6.38	6.86	-0.48	4	5
6.53	6.86	-0.33	4	6
5.97	6.86	-0.89	4	7
6.33	6.86	-0.53	4	8
6.02	6.86	-0.84	4	9
6.38	ND<5	1.38	5	9
6.53	ND<5	1.53	6	9
5.97	ND<5	0.97	7	9
6.33	ND<5	1.33	8	9
6.02	ND<5	1.02	9	9
6.53	6.38	0.15	10	9
5.97	6.38	-0.41	10	10
6.33	6.38	-0.05	10	11
6.02	6.38	-0.36	10	12
5.97	6.53	-0.56	10	13
6.33	6.53	-0.2	10	14
6.02	6.53	-0.51	10	15
6.33	5.97	0.36	11	15
6.02	5.97	0.05	12	15
6.02	6.33	-0.31	12	16

S Statistic = 12 - 16 = -4

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-4|$ is 0.72

0.72 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Chloride

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<5	ND<5	0	0	0
ND<5	ND<5	0	0	0
5.99	ND<5	0.99	1	0
ND<5	ND<5	0	1	0
7.68	ND<5	2.68	2	0
5.39	ND<5	0.39	3	0
5.07	ND<5	0.07	4	0
ND<5	ND<5	0	4	0
5.99	ND<5	0.99	5	0
ND<5	ND<5	0	5	0
7.68	ND<5	2.68	6	0
5.39	ND<5	0.39	7	0
5.07	ND<5	0.07	8	0
5.99	ND<5	0.99	9	0
ND<5	ND<5	0	9	0
7.68	ND<5	2.68	10	0
5.39	ND<5	0.39	11	0
5.07	ND<5	0.07	12	0
ND<5	5.99	-0.99	12	1
7.68	5.99	1.69	13	1
5.39	5.99	-0.6	13	2
5.07	5.99	-0.92	13	3
7.68	ND<5	2.68	14	3
5.39	ND<5	0.39	15	3
5.07	ND<5	0.07	16	3
5.39	7.68	-2.29	16	4
5.07	7.68	-2.61	16	5
5.07	5.39	-0.32	16	6

S Statistic = 16 - 6 = 10

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |10|$ is 0.276

0.276 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Chloride

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
61.4	60.4	1	1	0
136	60.4	75.6	2	0
107	60.4	46.6	3	0
141	60.4	80.6	4	0
114	60.4	53.6	5	0
110	60.4	49.6	6	0
117	60.4	56.6	7	0
136	61.4	74.6	8	0
107	61.4	45.6	9	0
141	61.4	79.6	10	0
114	61.4	52.6	11	0
110	61.4	48.6	12	0
117	61.4	55.6	13	0
107	136	-29	13	1
141	136	5	14	1
114	136	-22	14	2
110	136	-26	14	3
117	136	-19	14	4
141	107	34	15	4
114	107	7	16	4
110	107	3	17	4
117	107	10	18	4
114	141	-27	18	5
110	141	-31	18	6
117	141	-24	18	7
110	114	-4	18	8
117	114	3	19	8
117	110	7	20	8

S Statistic = 20 - 8 = 12

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |12|$ is 0.178

0.178 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Chloride

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<5	ND<5	0	0	0
ND<5	ND<5	0	0	0
ND<5	ND<5	0	0	0
ND<5	ND<5	0	0	0
5.92	ND<5	0.92	1	0
ND<5	ND<5	0	1	0
ND<5	ND<5	0	1	0
ND<5	ND<5	0	1	0
ND<5	ND<5	0	1	0
5.92	ND<5	0.92	2	0
ND<5	ND<5	0	2	0
ND<5	ND<5	0	2	0
ND<5	ND<5	0	2	0
ND<5	ND<5	0	2	0
ND<5	ND<5	0	2	0
5.92	ND<5	0.92	3	0
ND<5	ND<5	0	3	0
ND<5	ND<5	0	3	0
ND<5	ND<5	0	3	0
ND<5	ND<5	0	3	0
5.92	ND<5	0.92	4	0
ND<5	ND<5	0	4	0
ND<5	ND<5	0	4	0
ND<5	ND<5	0	4	0
5.92	ND<5	0.92	5	0
ND<5	ND<5	0	5	0
ND<5	ND<5	0	5	0
ND<5	5.92	-0.92	5	1
ND<5	5.92	-0.92	5	2
ND<5	ND<5	0	5	2

S Statistic = 5 - 2 = 3

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |3|$ is 0.812

0.812 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Cobalt

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.0005	ND<0.0005	0	0	0
ND<0.0005	ND<0.0005	0	0	0
ND<0.0005	ND<0.0005	0	0	0
ND<0.0005	ND<0.0005	0	0	0
0.000752	ND<0.0005	0.000252	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
0.000752	ND<0.0005	0.000252	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
0.000752	ND<0.0005	0.000252	3	0
ND<0.0005	ND<0.0005	0	3	0
ND<0.0005	ND<0.0005	0	3	0
ND<0.0005	ND<0.0005	0	3	0
ND<0.0005	ND<0.0005	0	3	0
0.000752	ND<0.0005	0.000252	4	0
ND<0.0005	ND<0.0005	0	4	0
ND<0.0005	ND<0.0005	0	4	0
0.000752	ND<0.0005	0.000252	5	0
ND<0.0005	ND<0.0005	0	5	0
ND<0.0005	ND<0.0005	0	5	0
ND<0.0005	0.000752	-0.000252	5	1
ND<0.0005	0.000752	-0.000252	5	2
ND<0.0005	ND<0.0005	0	5	2

S Statistic = 5 - 2 = 3

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |3|$ is 0.812

0.812 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Cobalt

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.000769	0.00254	-0.001771	0	1
0.00109	0.00254	-0.00145	0	2
ND<0.0005	0.00254	-0.00204	0	3
ND<0.0005	0.00254	-0.00204	0	4
ND<0.0005	0.00254	-0.00204	0	5
ND<0.0005	0.00254	-0.00204	0	6
ND<0.0005	0.00254	-0.00204	0	7
0.00109	0.000769	0.000321	1	7
ND<0.0005	0.000769	-0.000269	1	8
ND<0.0005	0.000769	-0.000269	1	9
ND<0.0005	0.000769	-0.000269	1	10
ND<0.0005	0.000769	-0.000269	1	11
ND<0.0005	0.000769	-0.000269	1	12
ND<0.0005	0.00109	-0.00059	1	13
ND<0.0005	0.00109	-0.00059	1	14
ND<0.0005	0.00109	-0.00059	1	15
ND<0.0005	0.00109	-0.00059	1	16
ND<0.0005	0.00109	-0.00059	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17
ND<0.0005	ND<0.0005	0	1	17

S Statistic = 1 - 17 = -16

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-16|$ is 0.062

0.062 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Cobalt

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.0005	ND<0.0005	0	0	0
0.000731	ND<0.0005	0.000231	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
0.000731	ND<0.0005	0.000231	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	0.000731	-0.000231	2	1
ND<0.0005	0.000731	-0.000231	2	2
ND<0.0005	0.000731	-0.000231	2	3
ND<0.0005	0.000731	-0.000231	2	4
ND<0.0005	0.000731	-0.000231	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5
ND<0.0005	ND<0.0005	0	2	5

S Statistic = 2 - 5 = -3

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-3|$ is 0.812

0.812 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Cobalt

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.00209	ND<0.0005	0.00159	1	0
ND<0.0005	ND<0.0005	0	1	0
0.00121	ND<0.0005	0.00071	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
0.000563	ND<0.0005	6.3e-005	3	0
ND<0.0005	ND<0.0005	0	3	0
ND<0.0005	0.00209	-0.00159	3	1
0.00121	0.00209	-0.00088	3	2
ND<0.0005	0.00209	-0.00159	3	3
ND<0.0005	0.00209	-0.00159	3	4
0.000563	0.00209	-0.001527	3	5
ND<0.0005	0.00209	-0.00159	3	6
0.00121	ND<0.0005	0.00071	4	6
ND<0.0005	ND<0.0005	0	4	6
ND<0.0005	ND<0.0005	0	4	6
0.000563	ND<0.0005	6.3e-005	5	6
ND<0.0005	ND<0.0005	0	5	6
ND<0.0005	0.00121	-0.00071	5	7
ND<0.0005	0.00121	-0.00071	5	8
0.000563	0.00121	-0.000647	5	9
ND<0.0005	0.00121	-0.00071	5	10
ND<0.0005	ND<0.0005	0	5	10
0.000563	ND<0.0005	6.3e-005	6	10
ND<0.0005	ND<0.0005	0	6	10
0.000563	ND<0.0005	6.3e-005	7	10
ND<0.0005	ND<0.0005	0	7	10
ND<0.0005	0.000563	-6.3e-005	7	11

S Statistic = 7 - 11 = -4

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-4|$ is 0.72

0.72 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Cobalt

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.0005	ND<0.0005	0	0	0
ND<0.0005	ND<0.0005	0	0	0
ND<0.0005	ND<0.0005	0	0	0
0.00211	ND<0.0005	0.00161	1	0
ND<0.0005	ND<0.0005	0	1	0
ND<0.0005	ND<0.0005	0	1	0
0.000759	ND<0.0005	0.000259	2	0
ND<0.0005	ND<0.0005	0	2	0
ND<0.0005	ND<0.0005	0	2	0
0.00211	ND<0.0005	0.00161	3	0
ND<0.0005	ND<0.0005	0	3	0
ND<0.0005	ND<0.0005	0	3	0
0.000759	ND<0.0005	0.000259	4	0
ND<0.0005	ND<0.0005	0	4	0
0.00211	ND<0.0005	0.00161	5	0
ND<0.0005	ND<0.0005	0	5	0
ND<0.0005	ND<0.0005	0	5	0
0.000759	ND<0.0005	0.000259	6	0
0.00211	ND<0.0005	0.00161	7	0
ND<0.0005	ND<0.0005	0	7	0
ND<0.0005	ND<0.0005	0	7	0
0.000759	ND<0.0005	0.000259	8	0
ND<0.0005	0.00211	-0.00161	8	1
ND<0.0005	0.00211	-0.00161	8	2
0.000759	0.00211	-0.001351	8	3
ND<0.0005	ND<0.0005	0	8	3
0.000759	ND<0.0005	0.000259	9	3
0.000759	ND<0.0005	0.000259	10	3

S Statistic = 10 - 3 = 7

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |7|$ is 0.473

0.473 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Fluoride

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.713	ND<0.5	0.213	1	0
ND<1	ND<0.5	0.5	2	0
ND<1	ND<0.5	0.5	3	0
ND<1	ND<0.5	0.5	4	0
ND<1	ND<0.5	0.5	5	0
ND<1	ND<0.5	0.5	6	0
ND<1	ND<0.5	0.5	7	0
ND<1	0.713	0.287	8	0
ND<1	0.713	0.287	9	0
ND<1	0.713	0.287	10	0
ND<1	0.713	0.287	11	0
ND<1	0.713	0.287	12	0
ND<1	0.713	0.287	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0
ND<1	ND<1	0	13	0

S Statistic = 13 - 0 = 13

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |13|$ is 0.143

0.143 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Fluoride

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.5	ND<0.5	0	0	0
ND<1	ND<0.5	0.5	1	0
ND<1	ND<0.5	0.5	2	0
ND<1	ND<0.5	0.5	3	0
0.279	ND<0.5	-0.221	3	1
ND<1	ND<0.5	0.5	4	1
ND<1	ND<0.5	0.5	5	1
ND<1	ND<0.5	0.5	6	1
ND<1	ND<0.5	0.5	7	1
ND<1	ND<0.5	0.5	8	1
0.279	ND<0.5	-0.221	8	2
ND<1	ND<0.5	0.5	9	2
ND<1	ND<0.5	0.5	10	2
ND<1	ND<1	0	10	2
ND<1	ND<1	0	10	2
0.279	ND<1	-0.721	10	3
ND<1	ND<1	0	10	3
ND<1	ND<1	0	10	3
ND<1	ND<1	0	10	3
0.279	ND<1	-0.721	10	4
ND<1	ND<1	0	10	4
ND<1	ND<1	0	10	4
0.279	ND<1	-0.721	10	5
ND<1	ND<1	0	10	5
ND<1	ND<1	0	10	5
ND<1	0.279	0.721	11	5
ND<1	0.279	0.721	12	5
ND<1	ND<1	0	12	5

S Statistic = 12 - 5 = 7

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |7|$ is 0.473

0.473 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Formaldehyde

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
12	ND<10	2	1	0
ND<10	ND<10	0	1	0
ND<10	ND<10	0	1	0
ND<10	ND<10	0	1	0
ND<10	ND<10	0	1	0
ND<10	ND<10	0	1	0
ND<20	ND<10	10	2	0
ND<10	12	-2	2	1
ND<10	12	-2	2	2
ND<10	12	-2	2	3
ND<10	12	-2	2	4
ND<10	12	-2	2	5
ND<20	12	8	3	5
ND<10	ND<10	0	3	5
ND<10	ND<10	0	3	5
ND<10	ND<10	0	3	5
ND<10	ND<10	0	3	5
ND<20	ND<10	10	4	5
ND<10	ND<10	0	4	5
ND<10	ND<10	0	4	5
ND<10	ND<10	0	4	5
ND<20	ND<10	10	5	5
ND<10	ND<10	0	5	5
ND<10	ND<10	0	5	5
ND<20	ND<10	10	6	5
ND<10	ND<10	0	6	5
ND<20	ND<10	10	7	5
ND<20	ND<10	10	8	5

S Statistic = 8 - 5 = 3

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |3|$ is 0.812

0.812 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Formaldehyde

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<10	13.8	-3.8	0	1
ND<10	13.8	-3.8	0	2
ND<10	13.8	-3.8	0	3
ND<10	13.8	-3.8	0	4
ND<10	13.8	-3.8	0	5
ND<10	13.8	-3.8	0	6
ND<20	13.8	6.2	1	6
ND<10	ND<10	0	1	6
ND<10	ND<10	0	1	6
ND<10	ND<10	0	1	6
ND<10	ND<10	0	1	6
ND<10	ND<10	0	1	6
ND<20	ND<10	10	2	6
ND<10	ND<10	0	2	6
ND<10	ND<10	0	2	6
ND<10	ND<10	0	2	6
ND<10	ND<10	0	2	6
ND<20	ND<10	10	3	6
ND<10	ND<10	0	3	6
ND<10	ND<10	0	3	6
ND<10	ND<10	0	3	6
ND<20	ND<10	10	4	6
ND<10	ND<10	0	4	6
ND<10	ND<10	0	4	6
ND<20	ND<10	10	5	6
ND<10	ND<10	0	5	6
ND<20	ND<10	10	6	6
ND<20	ND<10	10	7	6

S Statistic = 7 - 6 = 1

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |1|$ is 1

1 ≥ 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Total Organic Halogens, Halides

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0492	ND<0.04	0.0092	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
0.0458	ND<0.04	0.0058	2	0
0.185	ND<0.04	0.145	3	0
ND<0.06	ND<0.04	0.02	4	0
ND<0.04	0.0492	-0.0092	4	1
ND<0.04	0.0492	-0.0092	4	2
ND<0.04	0.0492	-0.0092	4	3
0.0458	0.0492	-0.0034	4	4
0.185	0.0492	0.1358	5	4
ND<0.06	0.0492	0.0108	6	4
ND<0.04	ND<0.04	0	6	4
ND<0.04	ND<0.04	0	6	4
0.0458	ND<0.04	0.0058	7	4
0.185	ND<0.04	0.145	8	4
ND<0.06	ND<0.04	0.02	9	4
ND<0.04	ND<0.04	0	9	4
0.0458	ND<0.04	0.0058	10	4
0.185	ND<0.04	0.145	11	4
ND<0.06	ND<0.04	0.02	12	4
0.0458	ND<0.04	0.0058	13	4
0.185	ND<0.04	0.145	14	4
ND<0.06	ND<0.04	0.02	15	4
0.185	0.0458	0.1392	16	4
ND<0.06	0.0458	0.0142	17	4
ND<0.06	0.185	-0.125	17	5

S Statistic = 17 - 5 = 12

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |12|$ is 0.178

0.178 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Total Organic Halogens, Halides

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.119	ND<0.04	0.079	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
0.0411	ND<0.04	0.0011	2	0
0.0971	ND<0.04	0.0571	3	0
ND<0.06	ND<0.04	0.02	4	0
ND<0.04	0.119	-0.079	4	1
ND<0.04	0.119	-0.079	4	2
ND<0.04	0.119	-0.079	4	3
0.0411	0.119	-0.0779	4	4
0.0971	0.119	-0.0219	4	5
ND<0.06	0.119	-0.059	4	6
ND<0.04	ND<0.04	0	4	6
ND<0.04	ND<0.04	0	4	6
0.0411	ND<0.04	0.0011	5	6
0.0971	ND<0.04	0.0571	6	6
ND<0.06	ND<0.04	0.02	7	6
ND<0.04	ND<0.04	0	7	6
0.0411	ND<0.04	0.0011	8	6
0.0971	ND<0.04	0.0571	9	6
ND<0.06	ND<0.04	0.02	10	6
0.0411	ND<0.04	0.0011	11	6
0.0971	ND<0.04	0.0571	12	6
ND<0.06	ND<0.04	0.02	13	6
0.0971	0.0411	0.056	14	6
ND<0.06	0.0411	0.0189	15	6
ND<0.06	0.0971	-0.0371	15	7

S Statistic = 15 - 7 = 8

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |8|$ is 0.398

0.398 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Total Organic Halogens, Halides

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0667	ND<0.04	0.0267	1	0
ND<0.04	ND<0.04	0	1	0
0.0861	ND<0.04	0.0461	2	0
ND<0.04	ND<0.04	0	2	0
0.138	ND<0.04	0.098	3	0
0.163	ND<0.04	0.123	4	0
ND<0.06	ND<0.04	0.02	5	0
ND<0.04	0.0667	-0.0267	5	1
0.0861	0.0667	0.0194	6	1
ND<0.04	0.0667	-0.0267	6	2
0.138	0.0667	0.0713	7	2
0.163	0.0667	0.0963	8	2
ND<0.06	0.0667	-0.0067	8	3
0.0861	ND<0.04	0.0461	9	3
ND<0.04	ND<0.04	0	9	3
0.138	ND<0.04	0.098	10	3
0.163	ND<0.04	0.123	11	3
ND<0.06	ND<0.04	0.02	12	3
ND<0.04	0.0861	-0.0461	12	4
0.138	0.0861	0.0519	13	4
0.163	0.0861	0.0769	14	4
ND<0.06	0.0861	-0.0261	14	5
0.138	ND<0.04	0.098	15	5
0.163	ND<0.04	0.123	16	5
ND<0.06	ND<0.04	0.02	17	5
0.163	0.138	0.025	18	5
ND<0.06	0.138	-0.078	18	6
ND<0.06	0.163	-0.103	18	7

S Statistic = 18 - 7 = 11

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |11|$ is 0.227

0.227 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Total Organic Halogens, Halides

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0688	ND<0.04	0.0288	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
0.0808	ND<0.04	0.0408	2	0
ND<0.04	ND<0.04	0	2	0
0.108	ND<0.04	0.068	3	0
ND<0.06	ND<0.04	0.02	4	0
ND<0.04	0.0688	-0.0288	4	1
ND<0.04	0.0688	-0.0288	4	2
0.0808	0.0688	0.012	5	2
ND<0.04	0.0688	-0.0288	5	3
0.108	0.0688	0.0392	6	3
ND<0.06	0.0688	-0.0088	6	4
ND<0.04	ND<0.04	0	6	4
0.0808	ND<0.04	0.0408	7	4
ND<0.04	ND<0.04	0	7	4
0.108	ND<0.04	0.068	8	4
ND<0.06	ND<0.04	0.02	9	4
0.0808	ND<0.04	0.0408	10	4
ND<0.04	ND<0.04	0	10	4
0.108	ND<0.04	0.068	11	4
ND<0.06	ND<0.04	0.02	12	4
ND<0.04	0.0808	-0.0408	12	5
0.108	0.0808	0.0272	13	5
ND<0.06	0.0808	-0.0208	13	6
0.108	ND<0.04	0.068	14	6
ND<0.06	ND<0.04	0.02	15	6
ND<0.06	0.108	-0.048	15	7

S Statistic = 15 - 7 = 8

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |8|$ is 0.398

0.398 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Total Organic Halogens, Halides

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.757	ND<0.04	0.717	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.04	ND<0.04	0	1	0
ND<0.06	ND<0.04	0.02	2	0
ND<0.06	ND<0.04	0.02	3	0
ND<0.04	0.757	-0.717	3	1
ND<0.04	0.757	-0.717	3	2
ND<0.04	0.757	-0.717	3	3
ND<0.04	0.757	-0.717	3	4
ND<0.06	0.757	-0.697	3	5
ND<0.06	0.757	-0.697	3	6
ND<0.04	ND<0.04	0	3	6
ND<0.04	ND<0.04	0	3	6
ND<0.04	ND<0.04	0	3	6
ND<0.06	ND<0.04	0.02	4	6
ND<0.06	ND<0.04	0.02	5	6
ND<0.04	ND<0.04	0	5	6
ND<0.04	ND<0.04	0	5	6
ND<0.06	ND<0.04	0.02	6	6
ND<0.06	ND<0.04	0.02	7	6
ND<0.04	ND<0.04	0	7	6
ND<0.06	ND<0.04	0.02	8	6
ND<0.06	ND<0.04	0.02	9	6
ND<0.06	ND<0.04	0.02	10	6
ND<0.06	ND<0.04	0.02	11	6
ND<0.06	ND<0.06	0	11	6

S Statistic = 11 - 6 = 5

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |5|$ is 0.634

0.634 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Iron

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
ND<0.1	ND<0.1	0	0	0
0.235	ND<0.1	0.135	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
ND<0.1	ND<0.1	0	1	0
0.235	ND<0.1	0.135	2	0
ND<0.1	ND<0.1	0	2	0
ND<0.1	ND<0.1	0	2	0
ND<0.1	ND<0.1	0	2	0
ND<0.1	ND<0.1	0	2	0
0.235	ND<0.1	0.135	3	0
ND<0.1	ND<0.1	0	3	0
ND<0.1	ND<0.1	0	3	0
ND<0.1	ND<0.1	0	3	0
0.235	ND<0.1	0.135	4	0
ND<0.1	ND<0.1	0	4	0
ND<0.1	ND<0.1	0	4	0
0.235	ND<0.1	0.135	5	0
ND<0.1	ND<0.1	0	5	0
0.235	ND<0.1	0.135	6	0
ND<0.1	ND<0.1	0	6	0
ND<0.1	0.235	-0.135	6	1

S Statistic = 6 - 1 = 5

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |5|$ is 0.634

0.634 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Manganese

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.085	0.0829	0.0021	1	0
0.0821	0.0829	-0.0008	1	1
0.0753	0.0829	-0.0076	1	2
0.0808	0.0829	-0.0021	1	3
0.0757	0.0829	-0.0072	1	4
0.0781	0.0829	-0.0048	1	5
0.0934	0.0829	0.0105	2	5
0.0821	0.085	-0.0029	2	6
0.0753	0.085	-0.0097	2	7
0.0808	0.085	-0.0042	2	8
0.0757	0.085	-0.0093	2	9
0.0781	0.085	-0.0069	2	10
0.0934	0.085	0.0084	3	10
0.0753	0.0821	-0.0068	3	11
0.0808	0.0821	-0.0013	3	12
0.0757	0.0821	-0.0064	3	13
0.0781	0.0821	-0.004	3	14
0.0934	0.0821	0.0113	4	14
0.0808	0.0753	0.0055	5	14
0.0757	0.0753	0.0004	6	14
0.0781	0.0753	0.0028	7	14
0.0934	0.0753	0.0181	8	14
0.0757	0.0808	-0.0051	8	15
0.0781	0.0808	-0.0027	8	16
0.0934	0.0808	0.0126	9	16
0.0781	0.0757	0.0024	10	16
0.0934	0.0757	0.0177	11	16
0.0934	0.0781	0.0153	12	16

S Statistic = 12 - 16 = -4

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-4|$ is 0.72

0.72 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Manganese

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0601	0.205	-0.1449	0	1
0.088	0.205	-0.117	0	2
0.0237	0.205	-0.1813	0	3
0.0115	0.205	-0.1935	0	4
0.0692	0.205	-0.1358	0	5
0.0546	0.205	-0.1504	0	6
0.0482	0.205	-0.1568	0	7
0.088	0.0601	0.0279	1	7
0.0237	0.0601	-0.0364	1	8
0.0115	0.0601	-0.0486	1	9
0.0692	0.0601	0.0091	2	9
0.0546	0.0601	-0.0055	2	10
0.0482	0.0601	-0.0119	2	11
0.0237	0.088	-0.0643	2	12
0.0115	0.088	-0.0765	2	13
0.0692	0.088	-0.0188	2	14
0.0546	0.088	-0.0334	2	15
0.0482	0.088	-0.0398	2	16
0.0115	0.0237	-0.0122	2	17
0.0692	0.0237	0.0455	3	17
0.0546	0.0237	0.0309	4	17
0.0482	0.0237	0.0245	5	17
0.0692	0.0115	0.0577	6	17
0.0546	0.0115	0.0431	7	17
0.0482	0.0115	0.0367	8	17
0.0546	0.0692	-0.0146	8	18
0.0482	0.0692	-0.021	8	19
0.0482	0.0546	-0.0064	8	20

S Statistic = 8 - 20 = -12

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-12|$ is 0.178

0.178 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Manganese

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.01	ND<0.01	0	0	0
0.0303	ND<0.01	0.0203	1	0
ND<0.01	ND<0.01	0	1	0
ND<0.01	ND<0.01	0	1	0
ND<0.01	ND<0.01	0	1	0
ND<0.01	ND<0.01	0	1	0
ND<0.01	ND<0.01	0	1	0
0.0303	ND<0.01	0.0203	2	0
ND<0.01	ND<0.01	0	2	0
ND<0.01	ND<0.01	0	2	0
ND<0.01	ND<0.01	0	2	0
ND<0.01	ND<0.01	0	2	0
ND<0.01	ND<0.01	0	2	0
ND<0.01	0.0303	-0.0203	2	1
ND<0.01	0.0303	-0.0203	2	2
ND<0.01	0.0303	-0.0203	2	3
ND<0.01	0.0303	-0.0203	2	4
ND<0.01	0.0303	-0.0203	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5
ND<0.01	ND<0.01	0	2	5

S Statistic = 2 - 5 = -3

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-3|$ is 0.812

0.812 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Manganese

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.14	0.0923	0.0477	1	0
0.0739	0.0923	-0.0184	1	1
0.0608	0.0923	-0.0315	1	2
0.0764	0.0923	-0.0159	1	3
0.0912	0.0923	-0.0011	1	4
0.1	0.0923	0.0077	2	4
0.0996	0.0923	0.0073	3	4
0.0739	0.14	-0.0661	3	5
0.0608	0.14	-0.0792	3	6
0.0764	0.14	-0.0636	3	7
0.0912	0.14	-0.0488	3	8
0.1	0.14	-0.04	3	9
0.0996	0.14	-0.0404	3	10
0.0608	0.0739	-0.0131	3	11
0.0764	0.0739	0.0025	4	11
0.0912	0.0739	0.0173	5	11
0.1	0.0739	0.0261	6	11
0.0996	0.0739	0.0257	7	11
0.0764	0.0608	0.0156	8	11
0.0912	0.0608	0.0304	9	11
0.1	0.0608	0.0392	10	11
0.0996	0.0608	0.0388	11	11
0.0912	0.0764	0.0148	12	11
0.1	0.0764	0.0236	13	11
0.0996	0.0764	0.0232	14	11
0.1	0.0912	0.0088	15	11
0.0996	0.0912	0.0084	16	11
0.0996	0.1	-0.0004	16	12

S Statistic = 16 - 12 = 4

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |4|$ is 0.72

0.72 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Manganese

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0595	0.12	-0.0605	0	1
0.0538	0.12	-0.0662	0	2
0.0806	0.12	-0.0394	0	3
0.0695	0.12	-0.0505	0	4
0.0754	0.12	-0.0446	0	5
0.0689	0.12	-0.0511	0	6
0.088	0.12	-0.032	0	7
0.0538	0.0595	-0.0057	0	8
0.0806	0.0595	0.0211	1	8
0.0695	0.0595	0.01	2	8
0.0754	0.0595	0.0159	3	8
0.0689	0.0595	0.0094	4	8
0.088	0.0595	0.0285	5	8
0.0806	0.0538	0.0268	6	8
0.0695	0.0538	0.0157	7	8
0.0754	0.0538	0.0216	8	8
0.0689	0.0538	0.0151	9	8
0.088	0.0538	0.0342	10	8
0.0695	0.0806	-0.0111	10	9
0.0754	0.0806	-0.0052	10	10
0.0689	0.0806	-0.0117	10	11
0.088	0.0806	0.0074	11	11
0.0754	0.0695	0.0059	12	11
0.0689	0.0695	-0.0006	12	12
0.088	0.0695	0.0185	13	12
0.0689	0.0754	-0.0065	13	13
0.088	0.0754	0.0126	14	13
0.088	0.0689	0.0191	15	13

S Statistic = 15 - 13 = 2

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |2|$ is 0.904

0.904 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Molybdenum

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.0021	ND<0.002	0.0001	1	0
0.00203	ND<0.002	3e-005	2	0
0.00264	ND<0.002	0.00064	3	0
ND<0.002	ND<0.002	0	3	0
0.00233	ND<0.002	0.00033	4	0
ND<0.002	ND<0.002	0	4	0
ND<0.002	ND<0.002	0	4	0
0.00203	0.0021	-7e-005	4	1
0.00264	0.0021	0.00054	5	1
ND<0.002	0.0021	-0.0001	5	2
0.00233	0.0021	0.00023	6	2
ND<0.002	0.0021	-0.0001	6	3
ND<0.002	0.0021	-0.0001	6	4
0.00264	0.00203	0.00061	7	4
ND<0.002	0.00203	-3e-005	7	5
0.00233	0.00203	0.0003	8	5
ND<0.002	0.00203	-3e-005	8	6
ND<0.002	0.00203	-3e-005	8	7
ND<0.002	0.00264	-0.00064	8	8
0.00233	0.00264	-0.00031	8	9
ND<0.002	0.00264	-0.00064	8	10
ND<0.002	0.00264	-0.00064	8	11
0.00233	ND<0.002	0.00033	9	11
ND<0.002	ND<0.002	0	9	11
ND<0.002	ND<0.002	0	9	11
ND<0.002	0.00233	-0.00033	9	12
ND<0.002	0.00233	-0.00033	9	13
ND<0.002	ND<0.002	0	9	13

S Statistic = 9 - 13 = -4

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-4|$ is 0.72

0.72 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Molybdenum

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.00318	0.0024	0.00078	1	0
0.00458	0.0024	0.00218	2	0
0.00225	0.0024	-0.00015	2	1
ND<0.002	0.0024	-0.0004	2	2
0.00202	0.0024	-0.00038	2	3
ND<0.002	0.0024	-0.0004	2	4
ND<0.002	0.0024	-0.0004	2	5
0.00458	0.00318	0.0014	3	5
0.00225	0.00318	-0.00093	3	6
ND<0.002	0.00318	-0.00118	3	7
0.00202	0.00318	-0.00116	3	8
ND<0.002	0.00318	-0.00118	3	9
ND<0.002	0.00318	-0.00118	3	10
0.00225	0.00458	-0.00233	3	11
ND<0.002	0.00458	-0.00258	3	12
0.00202	0.00458	-0.00256	3	13
ND<0.002	0.00458	-0.00258	3	14
ND<0.002	0.00458	-0.00258	3	15
ND<0.002	0.00225	-0.00025	3	16
0.00202	0.00225	-0.00023	3	17
ND<0.002	0.00225	-0.00025	3	18
ND<0.002	0.00225	-0.00025	3	19
0.00202	ND<0.002	2e-005	4	19
ND<0.002	ND<0.002	0	4	19
ND<0.002	ND<0.002	0	4	19
ND<0.002	0.00202	-2e-005	4	20
ND<0.002	0.00202	-2e-005	4	21
ND<0.002	ND<0.002	0	4	21

S Statistic = 4 - 21 = -17

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-17|$ is 0.047

0.047 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Molybdenum

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.00397	0.00284	0.00113	1	0
0.00557	0.00284	0.00273	2	0
0.0035	0.00284	0.00066	3	0
0.00296	0.00284	0.00012	4	0
0.00213	0.00284	-0.00071	4	1
0.00257	0.00284	-0.00027	4	2
0.00219	0.00284	-0.00065	4	3
0.00557	0.00397	0.0016	5	3
0.0035	0.00397	-0.00047	5	4
0.00296	0.00397	-0.00101	5	5
0.00213	0.00397	-0.00184	5	6
0.00257	0.00397	-0.0014	5	7
0.00219	0.00397	-0.00178	5	8
0.0035	0.00557	-0.00207	5	9
0.00296	0.00557	-0.00261	5	10
0.00213	0.00557	-0.00344	5	11
0.00257	0.00557	-0.003	5	12
0.00219	0.00557	-0.00338	5	13
0.00296	0.0035	-0.00054	5	14
0.00213	0.0035	-0.00137	5	15
0.00257	0.0035	-0.00093	5	16
0.00219	0.0035	-0.00131	5	17
0.00213	0.00296	-0.00083	5	18
0.00257	0.00296	-0.00039	5	19
0.00219	0.00296	-0.00077	5	20
0.00257	0.00213	0.00044	6	20
0.00219	0.00213	6e-005	7	20
0.00219	0.00257	-0.00038	7	21

S Statistic = 7 - 21 = -14

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-14|$ is 0.108

0.108 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Molybdenum

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
0.00229	ND<0.002	0.00029	1	0
0.00291	ND<0.002	0.00091	2	0
0.00242	ND<0.002	0.00042	3	0
0.00222	ND<0.002	0.00022	4	0
0.00234	ND<0.002	0.00034	5	0
0.00218	ND<0.002	0.00018	6	0
0.0033	ND<0.002	0.0013	7	0
0.00291	0.00229	0.00062	8	0
0.00242	0.00229	0.00013	9	0
0.00222	0.00229	-7e-005	9	1
0.00234	0.00229	5e-005	10	1
0.00218	0.00229	-0.00011	10	2
0.0033	0.00229	0.00101	11	2
0.00242	0.00291	-0.00049	11	3
0.00222	0.00291	-0.00069	11	4
0.00234	0.00291	-0.00057	11	5
0.00218	0.00291	-0.00073	11	6
0.0033	0.00291	0.00039	12	6
0.00222	0.00242	-0.0002	12	7
0.00234	0.00242	-8e-005	12	8
0.00218	0.00242	-0.00024	12	9
0.0033	0.00242	0.00088	13	9
0.00234	0.00222	0.00012	14	9
0.00218	0.00222	-4e-005	14	10
0.0033	0.00222	0.00108	15	10
0.00218	0.00234	-0.00016	15	11
0.0033	0.00234	0.00096	16	11
0.0033	0.00218	0.00112	17	11

S Statistic = 17 - 11 = 6

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |6|$ is 0.548

0.548 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Molybdenum

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<0.002	ND<0.002	0	0	0
0.00266	ND<0.002	0.00066	1	0
ND<0.002	ND<0.002	0	1	0
ND<0.002	ND<0.002	0	1	0
ND<0.002	ND<0.002	0	1	0
ND<0.002	ND<0.002	0	1	0
ND<0.002	ND<0.002	0	1	0
0.00266	ND<0.002	0.00066	2	0
ND<0.002	ND<0.002	0	2	0
ND<0.002	ND<0.002	0	2	0
ND<0.002	ND<0.002	0	2	0
ND<0.002	ND<0.002	0	2	0
ND<0.002	ND<0.002	0	2	0
ND<0.002	0.00266	-0.00066	2	1
ND<0.002	0.00266	-0.00066	2	2
ND<0.002	0.00266	-0.00066	2	3
ND<0.002	0.00266	-0.00066	2	4
ND<0.002	0.00266	-0.00066	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5
ND<0.002	ND<0.002	0	2	5

S Statistic = 2 - 5 = -3

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-3|$ is 0.812

0.812 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Sulfate

Location: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
928	976	-48	0	1
924	976	-52	0	2
927	976	-49	0	3
1050	976	74	1	3
1010	976	34	2	3
950	976	-26	2	4
943	976	-33	2	5
924	928	-4	2	6
927	928	-1	2	7
1050	928	122	3	7
1010	928	82	4	7
950	928	22	5	7
943	928	15	6	7
927	924	3	7	7
1050	924	126	8	7
1010	924	86	9	7
950	924	26	10	7
943	924	19	11	7
1050	927	123	12	7
1010	927	83	13	7
950	927	23	14	7
943	927	16	15	7
1010	1050	-40	15	8
950	1050	-100	15	9
943	1050	-107	15	10
950	1010	-60	15	11
943	1010	-67	15	12
943	950	-7	15	13

S Statistic = 15 - 13 = 2

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |2|$ is 0.904

0.904 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Sulfate

Location: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
14.4	20.1	-5.7	0	1
16.5	20.1	-3.6	0	2
14.3	20.1	-5.8	0	3
14.4	20.1	-5.7	0	4
19	20.1	-1.1	0	5
13.3	20.1	-6.8	0	6
12.3	20.1	-7.8	0	7
16.5	14.4	2.1	1	7
14.3	14.4	-0.1	1	8
14.4	14.4	0	1	8
19	14.4	4.6	2	8
13.3	14.4	-1.1	2	9
12.3	14.4	-2.1	2	10
14.3	16.5	-2.2	2	11
14.4	16.5	-2.1	2	12
19	16.5	2.5	3	12
13.3	16.5	-3.2	3	13
12.3	16.5	-4.2	3	14
14.4	14.3	0.1	4	14
19	14.3	4.7	5	14
13.3	14.3	-1	5	15
12.3	14.3	-2	5	16
19	14.4	4.6	6	16
13.3	14.4	-1.1	6	17
12.3	14.4	-2.1	6	18
13.3	19	-5.7	6	19
12.3	19	-6.7	6	20
12.3	13.3	-1	6	21

S Statistic = 6 - 21 = -15

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |-15|$ is 0.085

0.085 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Sulfate

Location: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
30.6	28.5	2.1	1	0
32.6	28.5	4.1	2	0
34.7	28.5	6.2	3	0
39.7	28.5	11.2	4	0
44.4	28.5	15.9	5	0
41.6	28.5	13.1	6	0
44.5	28.5	16	7	0
32.6	30.6	2	8	0
34.7	30.6	4.1	9	0
39.7	30.6	9.1	10	0
44.4	30.6	13.8	11	0
41.6	30.6	11	12	0
44.5	30.6	13.9	13	0
34.7	32.6	2.1	14	0
39.7	32.6	7.1	15	0
44.4	32.6	11.8	16	0
41.6	32.6	9	17	0
44.5	32.6	11.9	18	0
39.7	34.7	5	19	0
44.4	34.7	9.7	20	0
41.6	34.7	6.9	21	0
44.5	34.7	9.8	22	0
44.4	39.7	4.7	23	0
41.6	39.7	1.9	24	0
44.5	39.7	4.8	25	0
41.6	44.4	-2.8	25	1
44.5	44.4	0.1	26	1
44.5	41.6	2.9	27	1

S Statistic = 27 - 1 = 26

Comparing at 95% confidence level (upward trend)

Probability of obtaining S \geq 26 is 0.00019

S > 0 and 0.00019 < 0.05 indicating an upward trend

Mann-Kendall Trend Analysis

Parameter: Sulfate

Location: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
161	158	3	1	0
174	158	16	2	0
160	158	2	3	0
177	158	19	4	0
234	158	76	5	0
159	158	1	6	0
168	158	10	7	0
174	161	13	8	0
160	161	-1	8	1
177	161	16	9	1
234	161	73	10	1
159	161	-2	10	2
168	161	7	11	2
160	174	-14	11	3
177	174	3	12	3
234	174	60	13	3
159	174	-15	13	4
168	174	-6	13	5
177	160	17	14	5
234	160	74	15	5
159	160	-1	15	6
168	160	8	16	6
234	177	57	17	6
159	177	-18	17	7
168	177	-9	17	8
159	234	-75	17	9
168	234	-66	17	10
168	159	9	18	10

S Statistic = 18 - 10 = 8

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |8|$ is 0.398

0.398 \geq 0.025 indicating no evidence of a trend

Mann-Kendall Trend Analysis

Parameter: Sulfate

Location: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
18.5	18.1	0.4	1	0
24.7	18.1	6.6	2	0
20.8	18.1	2.7	3	0
22	18.1	3.9	4	0
23.3	18.1	5.2	5	0
18.8	18.1	0.7	6	0
23.1	18.1	5	7	0
24.7	18.5	6.2	8	0
20.8	18.5	2.3	9	0
22	18.5	3.5	10	0
23.3	18.5	4.8	11	0
18.8	18.5	0.3	12	0
23.1	18.5	4.6	13	0
20.8	24.7	-3.9	13	1
22	24.7	-2.7	13	2
23.3	24.7	-1.4	13	3
18.8	24.7	-5.9	13	4
23.1	24.7	-1.6	13	5
22	20.8	1.2	14	5
23.3	20.8	2.5	15	5
18.8	20.8	-2	15	6
23.1	20.8	2.3	16	6
23.3	22	1.3	17	6
18.8	22	-3.2	17	7
23.1	22	1.1	18	7
18.8	23.3	-4.5	18	8
23.1	23.3	-0.2	18	9
23.1	18.8	4.3	19	9

S Statistic = 19 - 9 = 10

Comparing at $1.0 - (0.05 / 2) = 97.5\%$ confidence level (two-tailed)

Probability of obtaining $S \geq |10|$ is 0.276

0.276 \geq 0.025 indicating no evidence of a trend

APPENDIX E

Parametric and Non-Parametric Prediction Limit

Non-Parametric Confidence Interval

Parameter: Aluminum, total

Well: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW3	4/8/2022	ND<0.05	4
MW3	9/26/2022	ND<0.05	4
MW3	5/9/2023	ND<0.05	4
MW3	9/1/2023	ND<0.05	4
MW3	2/27/2024	ND<0.05	4
MW3	8/12/2024	ND<0.05	4
MW3	8/12/2025	ND<0.05	4
MW3	2/17/2025	0.111	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.111

Lower Confidence Interval X(1) = 0.05

0.05 <= 0.2 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Ammonia Nitrogen

Well: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW5	4/1/2022	ND<0.5	3
MW5	5/2/2023	ND<0.5	3
MW5	9/18/2023	ND<0.5	3
MW5	3/11/2024	ND<0.5	3
MW5	3/3/2025	ND<0.5	3
MW5	8/19/2024	0.508	6
MW5	7/31/2025	0.517	7
MW5	9/30/2022	0.529	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.529

Lower Confidence Interval X(1) = 0.5

0.5 <= 30 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Boron

Well: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW2	3/18/2022	ND<0.1	4
MW2	9/16/2022	ND<0.1	4
MW2	4/25/2023	ND<0.1	4
MW2	9/25/2023	ND<0.1	4
MW2	3/18/2024	ND<0.1	4
MW2	8/5/2024	ND<0.1	4
MW2	7/17/2025	ND<0.1	4
MW2	2/10/2025	0.143	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.143

Lower Confidence Interval X(1) = 0.1

0.1 <= 6 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Chloride

Well: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW2	3/18/2022	ND<5	2.5
MW2	9/16/2022	ND<5	2.5
MW2	4/25/2023	ND<5	2.5
MW2	3/18/2024	ND<5	2.5
MW2	7/17/2025	5.07	5
MW2	2/10/2025	5.39	6
MW2	9/25/2023	5.99	7
MW2	8/5/2024	7.68	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 7.68

Lower Confidence Interval X(1) = 5

5 <= 250 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Chloride

Well: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW4	3/25/2022	ND<5	4
MW4	9/21/2022	ND<5	4
MW4	4/17/2023	ND<5	4
MW4	9/11/2023	ND<5	4
MW4	3/25/2024	ND<5	4
MW4	2/24/2025	ND<5	4
MW4	7/24/2025	ND<5	4
MW4	7/23/2024	5.92	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 5.92

Lower Confidence Interval X(1) = 5

5 <= 250 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Cobalt

Well: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW1	3/11/2022	ND<0.0005	4
MW1	9/12/2022	ND<0.0005	4
MW1	4/11/2023	ND<0.0005	4
MW1	9/29/2023	ND<0.0005	4
MW1	3/4/2024	ND<0.0005	4
MW1	2/4/2025	ND<0.0005	4
MW1	7/10/2025	ND<0.0005	4
MW1	7/29/2024	0.000752	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.000752

Lower Confidence Interval X(1) = 0.0005

0.0005 <= 0.0021 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Cobalt

Well: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW2	3/18/2024	ND<0.0005	3
MW2	8/5/2024	ND<0.0005	3
MW2	2/10/2025	ND<0.0005	3
MW2	9/25/2023	ND<0.0005	3
MW2	7/17/2025	ND<0.0005	3
MW2	9/16/2022	0.000769	6
MW2	4/25/2023	0.00109	7
MW2	3/18/2022	0.00254	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.00254

Lower Confidence Interval X(1) = 0.0005

0.0005 <= 0.0021 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Cobalt

Well: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW3	4/8/2022	ND<0.0005	4
MW3	9/26/2022	ND<0.0005	4
MW3	2/17/2025	ND<0.0005	4
MW3	9/1/2023	ND<0.0005	4
MW3	2/27/2024	ND<0.0005	4
MW3	8/12/2024	ND<0.0005	4
MW3	8/12/2025	ND<0.0005	4
MW3	5/9/2023	0.000731	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.000731

Lower Confidence Interval X(1) = 0.0005

0.0005 <= 0.0021 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Cobalt

Well: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW4	3/25/2022	ND<0.0005	3
MW4	7/23/2024	ND<0.0005	3
MW4	4/17/2023	ND<0.0005	3
MW4	7/24/2025	ND<0.0005	3
MW4	3/25/2024	ND<0.0005	3
MW4	2/24/2025	0.000563	6
MW4	9/11/2023	0.00121	7
MW4	9/21/2022	0.00209	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.00209

Lower Confidence Interval X(1) = 0.0005

0.0005 <= 0.0021 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Cobalt

Well: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW5	4/1/2022	ND<0.0005	3.5
MW5	9/30/2022	ND<0.0005	3.5
MW5	5/2/2023	ND<0.0005	3.5
MW5	9/18/2023	ND<0.0005	3.5
MW5	8/19/2024	ND<0.0005	3.5
MW5	3/3/2025	ND<0.0005	3.5
MW5	7/31/2025	0.000759	7
MW5	3/11/2024	0.00211	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.00211

Lower Confidence Interval X(1) = 0.0005

0.0005 <= 0.00211 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Fluoride

Well: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW2	3/18/2022	ND<0.5	1
MW2	9/16/2022	0.713	2
MW2	4/25/2023	ND<1	5.5
MW2	9/25/2023	ND<1	5.5
MW2	3/18/2024	ND<1	5.5
MW2	8/5/2024	ND<1	5.5
MW2	2/10/2025	ND<1	5.5
MW2	7/17/2025	ND<1	5.5

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 1

Lower Confidence Interval X(1) = 0.5

0.5 <= 2 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Fluoride

Well: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW3	8/12/2024	0.279	1
MW3	4/8/2022	ND<0.5	2.5
MW3	9/26/2022	ND<0.5	2.5
MW3	5/9/2023	ND<1	6
MW3	9/1/2023	ND<1	6
MW3	2/27/2024	ND<1	6
MW3	2/17/2025	ND<1	6
MW3	8/12/2025	ND<1	6

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 1

Lower Confidence Interval X(1) = 0.279

0.279 <= 2 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Fluoride

Well: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW5	9/30/2022	ND<0.5	1
MW5	4/1/2022	0.721	2
MW5	8/19/2024	0.771	3
MW5	5/2/2023	ND<1	6
MW5	9/18/2023	ND<1	6
MW5	3/11/2024	ND<1	6
MW5	3/3/2025	ND<1	6
MW5	7/31/2025	ND<1	6

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 1

Lower Confidence Interval X(1) = 0.5

0.5 <= 2 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Formaldehyde

Well: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW1	3/11/2022	ND<10	3.5
MW1	7/29/2024	ND<10	3.5
MW1	4/11/2023	ND<10	3.5
MW1	9/29/2023	ND<10	3.5
MW1	3/4/2024	ND<10	3.5
MW1	2/4/2025	ND<10	3.5
MW1	9/12/2022	12	7
MW1	7/10/2025	ND<20	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 20

Lower Confidence Interval X(1) = 10

10 <= 1000 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Formaldehyde

Well: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW3	2/27/2024	ND<10	3.5
MW3	9/26/2022	ND<10	3.5
MW3	5/9/2023	ND<10	3.5
MW3	9/1/2023	ND<10	3.5
MW3	8/12/2024	ND<10	3.5
MW3	2/17/2025	ND<10	3.5
MW3	4/8/2022	13.8	7
MW3	8/12/2025	ND<20	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 20

Lower Confidence Interval X(1) = 10

10 <= 1000 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Total Organic Halogens, Halides

Well: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW1	3/11/2022	ND<0.04	2.5
MW1	4/11/2023	ND<0.04	2.5
MW1	9/29/2023	ND<0.04	2.5
MW1	3/4/2024	ND<0.04	2.5
MW1	7/29/2024	0.0458	5
MW1	9/12/2022	0.0492	6
MW1	7/10/2025	ND<0.06	7
MW1	2/4/2025	0.185	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.185

Lower Confidence Interval X(1) = 0.04

0.04 <= 0.06 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Total Organic Halogens, Halides

Well: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW2	3/18/2022	ND<0.04	2.5
MW2	4/25/2023	ND<0.04	2.5
MW2	9/25/2023	ND<0.04	2.5
MW2	3/18/2024	ND<0.04	2.5
MW2	8/5/2024	0.0411	5
MW2	7/17/2025	ND<0.06	6
MW2	2/10/2025	0.0971	7
MW2	9/16/2022	0.119	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.119

Lower Confidence Interval X(1) = 0.04

0.04 <= 0.06 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Total Organic Halogens, Halides

Well: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW5	4/1/2022	ND<0.04	3
MW5	8/19/2024	ND<0.04	3
MW5	5/2/2023	ND<0.04	3
MW5	9/18/2023	ND<0.04	3
MW5	3/11/2024	ND<0.04	3
MW5	3/3/2025	ND<0.06	6.5
MW5	7/31/2025	ND<0.06	6.5
MW5	9/30/2022	0.757	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.757

Lower Confidence Interval X(1) = 0.04

0.04 <= 0.06 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Iron

Well: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW4	3/25/2022	ND<0.1	4
MW4	9/21/2022	ND<0.1	4
MW4	4/17/2023	ND<0.1	4
MW4	9/11/2023	ND<0.1	4
MW4	3/25/2024	ND<0.1	4
MW4	7/23/2024	ND<0.1	4
MW4	7/24/2025	ND<0.1	4
MW4	2/24/2025	0.235	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.235

Lower Confidence Interval X(1) = 0.1

0.1 <= 0.3 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Manganese

Well: MW3

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW3	4/8/2022	ND<0.01	4
MW3	9/26/2022	ND<0.01	4
MW3	2/17/2025	ND<0.01	4
MW3	9/1/2023	ND<0.01	4
MW3	2/27/2024	ND<0.01	4
MW3	8/12/2024	ND<0.01	4
MW3	8/12/2025	ND<0.01	4
MW3	5/9/2023	0.0303	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.0303

Lower Confidence Interval X(1) = 0.01

0.01 <= 0.3 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Molybdenum

Well: MW1

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW1	3/11/2022	ND<0.002	2.5
MW1	2/4/2025	ND<0.002	2.5
MW1	7/10/2025	ND<0.002	2.5
MW1	3/4/2024	ND<0.002	2.5
MW1	4/11/2023	0.00203	5
MW1	9/12/2022	0.0021	6
MW1	7/29/2024	0.00233	7
MW1	9/29/2023	0.00264	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.00264

Lower Confidence Interval X(1) = 0.002

0.002 <= 0.04 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Molybdenum

Well: MW2

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW2	3/18/2024	ND<0.002	2
MW2	2/10/2025	ND<0.002	2
MW2	7/17/2025	ND<0.002	2
MW2	8/5/2024	0.00202	4
MW2	9/25/2023	0.00225	5
MW2	3/18/2022	0.0024	6
MW2	9/16/2022	0.00318	7
MW2	4/25/2023	0.00458	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.00458

Lower Confidence Interval X(1) = 0.002

0.002 <= 0.04 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Molybdenum

Well: MW5

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW5	4/1/2022	ND<0.002	4
MW5	9/30/2022	ND<0.002	4
MW5	3/3/2025	ND<0.002	4
MW5	9/18/2023	ND<0.002	4
MW5	3/11/2024	ND<0.002	4
MW5	8/19/2024	ND<0.002	4
MW5	7/31/2025	ND<0.002	4
MW5	5/2/2023	0.00266	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 0.00266

Lower Confidence Interval X(1) = 0.002

0.002 <= 0.04 Indicating No Statistical Significance

Non-Parametric Confidence Interval

Parameter: Sulfate

Well: MW4

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

99% Comparison Level

Total measurements = 8

Ranks

Point	Date	Value	Rank
MW4	3/25/2022	158	1
MW4	2/24/2025	159	2
MW4	9/11/2023	160	3
MW4	9/21/2022	161	4
MW4	7/24/2025	168	5
MW4	4/17/2023	174	6
MW4	3/25/2024	177	7
MW4	7/23/2024	234	8

M = 8

n + 1 - M = 1

Two Sided Confidence Level = 99.2%

Upper Confidence Interval X(8) = 234

Lower Confidence Interval X(1) = 158

158 <= 250 Indicating No Statistical Significance

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW1

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/11/2022	0.0236
	9/12/2022	0.0231
	4/11/2023	0.0233
	9/29/2023	0.0207
	3/4/2024	0.021
	7/29/2024	0.0203
	2/4/2025	0.021

From 7 baseline samples

Baseline mean = 0.0218571

Baseline std Dev = 0.00140814

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/10/2025	1	0.0179	[0.0163, 0.0274]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW2

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/18/2022	0.072
	9/16/2022	0.0582
	4/25/2023	0.0727
	9/25/2023	0.118
	3/18/2024	0.11
	8/5/2024	0.118
	2/10/2025	0.114

From 7 baseline samples

Baseline mean = 0.0947

Baseline std Dev = 0.0258969

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/17/2025	1	0.128	[-0.00794, 0.197]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW3

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/8/2022	0.295
	9/26/2022	0.282
	5/9/2023	0.32
	9/1/2023	0.325
	2/27/2024	0.267
	8/12/2024	0.32
	2/17/2025	0.309

From 7 baseline samples

Baseline mean = 0.302571

Baseline std Dev = 0.0219762

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
8/12/2025	1	0.32	[0.215, 0.39]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW4

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/25/2022	0.125
	9/21/2022	0.129
	4/17/2023	0.125
	9/11/2023	0.135
	3/25/2024	0.112
	7/23/2024	0.118
	2/24/2025	0.125

From 7 baseline samples

Baseline mean = 0.124143

Baseline std Dev = 0.00740335

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/24/2025	1	0.118	[0.0948, 0.153]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW5

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/1/2022	0.126
	9/30/2022	0.0965
	5/2/2023	0.0775
	9/18/2023	0.0955
	3/11/2024	0.0801
	8/19/2024	0.0941
	3/3/2025	0.0836

From 7 baseline samples

Baseline mean = 0.0933286

Baseline std Dev = 0.0163451

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/31/2025	1	0.0841	[0.0285, 0.158]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW1

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/11/2022	0.168
	9/12/2022	0.135
	4/11/2023	0.117
	9/29/2023	0.17
	3/4/2024	0.127
	7/29/2024	0.12
	2/4/2025	0.128

From 7 baseline samples

Baseline mean = 0.137857

Baseline std Dev = 0.0220562

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/10/2025	1	0.144	[0.0504, 0.225]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW5

Parameter: Boron

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/1/2022	0.23
	9/30/2022	0.191
	5/2/2023	0.188
	9/18/2023	0.213
	3/11/2024	0.16
	8/19/2024	0.176
	3/3/2025	0.171

From 7 baseline samples

Baseline mean = 0.189857

Baseline std Dev = 0.0244638

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/31/2025	1	0.185	[0.0929, 0.287]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW1

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/11/2022	6.25
	9/12/2022	6.86
	4/11/2023	ND<5
	9/29/2023	6.38
	3/4/2024	6.53
	7/29/2024	5.97
	2/4/2025	6.33

From 7 baseline samples

Baseline mean = 6.18857

Baseline std Dev = 0.589956

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/10/2025	1	6.02	[3.85, 8.53]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW3

Parameter: Chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/8/2022	60.4
	9/26/2022	61.4
	5/9/2023	136
	9/1/2023	107
	2/27/2024	141
	8/12/2024	114
	2/17/2025	110

From 7 baseline samples

Baseline mean = 104.257

Baseline std Dev = 32.2833

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
8/12/2025	1	117	[-23.7, 232]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW3

Parameter: Total Organic Halogens, Halides

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/8/2022	ND<0.04
	9/26/2022	0.0667
	5/9/2023	ND<0.04
	9/1/2023	0.0861
	2/27/2024	ND<0.04
	8/12/2024	0.138
	2/17/2025	0.163

From 7 baseline samples

Baseline mean = 0.0819714

Baseline std Dev = 0.0503982

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
8/12/2025	1	0.06	[-0.118, 0.282]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW4

Parameter: Total Organic Halogens, Halides

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/25/2022	ND<0.04
	9/21/2022	0.0688
	4/17/2023	ND<0.04
	9/11/2023	ND<0.04
	3/25/2024	0.0808
	7/23/2024	ND<0.04
	2/24/2025	0.108

From 7 baseline samples

Baseline mean = 0.0596571

Baseline std Dev = 0.0271209

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/24/2025	1	0.06	[-0.0478, 0.167]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW1

Parameter: Manganese

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/11/2022	0.0829
	9/12/2022	0.085
	4/11/2023	0.0821
	9/29/2023	0.0753
	3/4/2024	0.0808
	7/29/2024	0.0757
	2/4/2025	0.0781

From 7 baseline samples

Baseline mean = 0.0799857

Baseline std Dev = 0.00371144

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/10/2025	1	0.0934	[0.0653, 0.0947]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW2

Parameter: Manganese

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/18/2022	0.205
	9/16/2022	0.0601
	4/25/2023	0.088
	9/25/2023	0.0237
	3/18/2024	0.0115
	8/5/2024	0.0692
	2/10/2025	0.0546

From 7 baseline samples

Baseline mean = 0.0731571

Baseline std Dev = 0.0637456

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/17/2025	1	0.0482	[-0.179, 0.326]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW4

Parameter: Manganese

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/25/2022	0.0923
	9/21/2022	0.14
	4/17/2023	0.0739
	9/11/2023	0.0608
	3/25/2024	0.0764
	7/23/2024	0.0912
	2/24/2025	0.1

From 7 baseline samples

Baseline mean = 0.0906571

Baseline std Dev = 0.0254968

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/24/2025	1	0.0996	[-0.0104, 0.192]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW5

Parameter: Manganese

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/1/2022	0.12
	9/30/2022	0.0595
	5/2/2023	0.0538
	9/18/2023	0.0806
	3/11/2024	0.0695
	8/19/2024	0.0754
	3/3/2025	0.0689

From 7 baseline samples

Baseline mean = 0.0753857

Baseline std Dev = 0.0216511

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/31/2025	1	0.088	[-0.0104, 0.161]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW3

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/8/2022	0.00284
	9/26/2022	0.00397
	5/9/2023	0.00557
	9/1/2023	0.0035
	2/27/2024	0.00296
	8/12/2024	0.00213
	2/17/2025	0.00257

From 7 baseline samples

Baseline mean = 0.00336286

Baseline std Dev = 0.00114332

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
8/12/2025	1	0.00219	[-0.00117, 0.00743]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW4

Parameter: Molybdenum

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/25/2022	ND<0.002
	9/21/2022	0.00229
	4/17/2023	0.00291
	9/11/2023	0.00242
	3/25/2024	0.00222
	7/23/2024	0.00234
	2/24/2025	0.00218

From 7 baseline samples

Baseline mean = 0.00233714

Baseline std Dev = 0.000285582

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/24/2025	1	0.0033	[0.00121, 0.0034]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW1

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/11/2022	976
	9/12/2022	928
	4/11/2023	924
	9/29/2023	927
	3/4/2024	1050
	7/29/2024	1010
	2/4/2025	950

From 7 baseline samples

Baseline mean = 966.429

Baseline std Dev = 48.435

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/10/2025	1	943	[774, 1.16e+003]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW2

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	3/18/2022	20.1
	9/16/2022	14.4
	4/25/2023	16.5
	9/25/2023	14.3
	3/18/2024	14.4
	8/5/2024	19
	2/10/2025	13.3

From 7 baseline samples

Baseline mean = 16

Baseline std Dev = 2.62552

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/17/2025	1	12.3	[5.59, 26.4]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW3

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/8/2022	28.5
	9/26/2022	30.6
	5/9/2023	32.6
	9/1/2023	34.7
	2/27/2024	39.7
	8/12/2024	44.4
	2/17/2025	41.6

From 7 baseline samples

Baseline mean = 36.0143

Baseline std Dev = 5.9759

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
8/12/2025	1	44.5	[12.3, 59.7]	FALSE

Parametric Prediction Interval Analysis

Intra-Well Comparison for MW5

Parameter: Sulfate

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Intra-Well Unified Guid. Formula 99% Two-Sided Comparison

Baseline Samples	Date	Result
	4/1/2022	18.1
	9/30/2022	18.5
	5/2/2023	24.7
	9/18/2023	20.8
	3/11/2024	22
	8/19/2024	23.3
	3/3/2025	18.8

From 7 baseline samples

Baseline mean = 20.8857

Baseline std Dev = 2.56348

For 1 recent sampling event(s)

Actual confidence level is $1.0 - (0.05/1)/2 = 99.5\%$

t is Percentile of Student's T-Test $(0.99/1/2) = 0.995$

Degrees of Freedom = 7 (background observations) - 1

$t(0.995, 7) = 3.70743$

Date	Samples	Mean	Interval	Significant
7/31/2025	1	23.1	[10.7, 31]	FALSE

APPENDIX F

Laboratory Analytical Reports



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11B0469

EB Solutions, Inc.

Project Name: Water Analysis

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 02/06/2025
Reported: 02/10/2025

Case Narrative

CASE NARRATIVE

The samples received on 02/06/25 12:00 for Work Order 11B0469 were contained in client supplied containers.

Analytical Testing Parameters

Client Sample ID:	MW1	Collected By:	Bertch, Ed
Sample Matrix:	Aqueous	Collection Date:	02/04/2025 10:35
Lab Sample ID:	11B0469-01		

Determination of Carbonyl Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8315								
Formaldehyde	<10.0	10.0	ug/L	1		02/07/25 1435	02/10/25 1116	PDS

Definitions

- RL: Reporting Limit
- RPD: Relative Percent Difference

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Heather Tisdale
Customer Relationship Specialist
02/10/25 16:35

Keystone

LABORATORIES, INC.

600 E. 17th St. S
 Newton, IA. 50208
 Phone: 641-792-8451

EB Solutions, Inc.
 PM: Heather Murphy

36105
 56

205 E Van Buren St
 Centerville, IA. 52544
 Phone: 641-437-7023

1 I B 0 4 6 9

PRINT OR TYPE INFO BELOW:

SAMPLER: Ed Bertch
 SITE NAME: Crawford
 ADDRESS: 5707 F Avenue NW
 CITY/ST/ZIP: Cedar Rapids, Iowa
 PHONE:

REPORT TO:

NAME: Ed Bertch
 CO. NAME: EB Solutions, Inc.
 ADDRESS: 5080 4th Street SW
 CITY/ST/ZIP: Cedar Rapids, Iowa 52404
 PHONE: 319-249-3293
 Email: edbertch@ebsolutionsinc-web.com

BILL TO:

NAME: Same as Report
 CO. NAME:
 ADDRESS:
 CITY/ST/ZIP:
 PHONE:
 Email:

CLIENT SAMPLE #	DATE	TIME	# OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED				LAB USE ONLY									
						Formaldehyde				Wk Order #:	Short Hold:	Rush:	Temp:	Sample Condition	Sample #				
MMW1	2/4/25	10:35	2	GW Grab	X														

Relinquished by: (Signature) *[Signature]* Date: 2-5-25 Time: 8:30

Relinquished by: (Signature) *[Signature]* Date: Time:

Received by: (Signature) *[Signature]* Received for Lab by: (Signature) *[Signature]* Date: 2/6/25 Time: 12:00

Remarks:



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11B0813

EB Solutions, Inc.

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project Name: Crawford

Project / PO Number: N/A
Received: 02/12/2025
Reported: 02/14/2025

Analytical Testing Parameters

Client Sample ID:	MW2	Collected By:	Bertch, Ed
Sample Matrix:	Aqueous	Collection Date:	02/10/2025 12:05
Lab Sample ID:	11B0813-01		

Determination of Carbonyl Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8315								
Formaldehyde	<10.0	10.0	ug/L	1		02/13/25 1326	02/14/25 1055	PDS

Definitions

- RL: Reporting Limit
- RPD: Relative Percent Difference

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <<https://www.microbac.com/standard-terms-conditions>>.

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
02/14/25 15:58



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11B1183

EB Solutions, Inc.

Project Name: Water Analysis

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 02/19/2025
Reported: 02/24/2025

Analytical Testing Parameters

Client Sample ID:	MW3	Collected By:	Bertch, Ed
Sample Matrix:	Aqueous	Collection Date:	02/17/2025 11:15
Lab Sample ID:	11B1183-01		

Determination of Carbonyl Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8315								
Formaldehyde	<10.0	10.0	ug/L	1		02/20/25 1056	02/21/25 1103	PDS

Definitions

- RL: Reporting Limit
- RPD: Relative Percent Difference

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <<https://www.microbac.com/standard-terms-conditions>>.

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
02/24/25 16:28

Keystone

LABORATORIES, INC.

600 E. 17th St. S
Newton, IA. 50208
Phone: 641-792-8451

3012
Wat
Pho

EB Solutions, Inc.
P.M. Heather Murphy

205 E Van Buren St
Centerville, IA. 52544
Phone: 641-437-7023

CHAIN OF C



PRINT OR TYPE INFO BELOW:

SAMPLER: Ed Berch
SITE NAME: Crawford
ADDRESS: 5707 F Avenue NW
CITY/ST/ZIP: Cedar Rapids, Iowa
PHONE:

REPORT TO:

NAME: Ed Berch
CO. NAME: EB Solutions, Inc.
ADDRESS: 5060 4th Street SW
CITY/ST/ZIP: Cedar Rapids, Iowa 52404
PHONE: 319-249-3293
Email: edberch@ebsolutionsinc-web.com

BILL TO:

NAME: Same as Report
CO. NAME:
ADDRESS:
CITY/ST/ZIP:
PHONE:
Email:

CLIENT SAMPLE #	DATE	TIME	# OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED		LAB USE ONLY											
						Formaldehyde	X		Wk Order #:	Short Hold:	Rush:	Temp.	Sample Condition	Sample #					
MW3	2/17/25	11:15	2	GW Grab	X			1FB183											

Relinquished by: (Signature)

Date: 2/18/25
Time: 11:00

Received by: (Signature)

Received for Lab by: (Signature)
Amber Hester

Date:

Time:

Remarks:

Date: 2-19-25
Time: 12:29

Relinquished by: (Signature)

Date:
Time:



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11B1564

EB Solutions, Inc.

Project Name: Crawford

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 02/26/2025
Reported: 03/03/2025

Case Narrative

CASE NARRATIVE

The samples received on 02/26/25 12:29 for Work Order 11B1564 were contained in client supplied containers.

Analytical Testing Parameters

Client Sample ID:	MW4	Collected By:	Berch, Ed
Sample Matrix:	Aqueous	Collection Date:	02/24/2025 11:00
Lab Sample ID:	11B1564-01		

Determination of Carbonyl Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8315								
Formaldehyde	<10.0	10.0	ug/L	1		02/27/25 0913	02/28/25 1337	PDS

Definitions

- RL: Reporting Limit
- RPD: Relative Percent Difference

Report Comments

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Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
03/03/25 13:07



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11C0395

EB Solutions, Inc.

Project Name: Water Analysis

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 03/06/2025
Reported: 03/10/2025

Analytical Testing Parameters

Client Sample ID:	MW5	Collected By:	Bertch, Ed
Sample Matrix:	Aqueous	Collection Date:	03/03/2025 10:00
Lab Sample ID:	11C0395-01		

Determination of Carbonyl Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8315								
Formaldehyde	<10.0	10.0	ug/L	1		03/06/25 1123	03/07/25 1323	PDS

Definitions

- RL: Reporting Limit
- RPD: Relative Percent Difference

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <<https://www.microbac.com/standard-terms-conditions>>.

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
03/10/25 15:19

Keystone

LABORATORIES, INC.

600 E. 17th St. S
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 Phone: 641-792-8451

3012 Anslor
 Waterloo, IA
 Phone: 319-222-

EB Solutions, Inc.
 P.M. Heather Murphy

n Buren St
 le, IA. 52544
 641-437-7023

CHAIN OF CUSTODY



PRINT OR TYPE INFO BELOW:

SAMPLER: Ed Berch
 SITE NAME: Crawford
 ADDRESS: 5707 F Avenue NW
 CITY/ST/ZIP: Cedar Rapids, Iowa
 PHONE:

REPORT TO:

NAME: Ed Berch
 CO. NAME: EB Solutions, Inc.
 ADDRESS: 5060 4th Street SW
 CITY/ST/ZIP: Cedar Rapids, Iowa 52404
 PHONE: 319-249-3293
 Email: edberch@ebsolutionsinc-wel.com

BILL TO:

NAME: Same as Report
 CO. NAME:
 ADDRESS:
 CITY/ST/ZIP:
 PHONE:
 Email:

CLIENT SAMPLE #	DATE	TIME	# OF CONTAINERS	MATRIX	ANALYSES REQUIRED	LAB USE ONLY	
						Wk Order #	Sample #
MW5	3/3/25	10:00	2	GW GR	X	ITC0395	01

Relinquished by: (Signature) *[Signature]* Date: 3-4-25 Time: 10:00

Received by: (Signature) *[Signature]* Date: 3/6/25 Time: 14:18

Relinquished by: (Signature) *[Signature]* Date: Time:

Received for Lab by: (Signature) *[Signature]* Date: 3/6/25 Time: 14:18

Remarks:



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IG2105

EB Solutions, Inc.

Project Name: Water Analysis

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 07/18/2025
Reported: 07/22/2025

Case Narrative

CASE NARRATIVE

The samples received on 07/18/25 13:35 for Work Order 1IG2105 were contained in client supplied containers.

Analytical Testing Parameters

Client Sample ID:	MW2	Collected By:	Bertch, Ed
Sample Matrix:	Aqueous	Collection Date:	07/17/2025 13:56
Lab Sample ID:	1IG2105-01		

Determination of Carbonyl Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 8315A							
Formaldehyde	<20.0	20.0	ug/L		07/18/25 1445	07/21/25 1011	PDS

Definitions

RL: Reporting Limit

Report Comments

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Reviewed and Approved By:

Sue Thompson
Client Services Manager
07/22/25 17:39

Keystone

LABORATORIES, INC.

600 E. 17th St. S
 Newton, IA, 50208
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 Waterloo, IA, 507
 Phone: 319-235-4

EB Solutions, Inc.
 PM: Heather Murphy

E Van Buren St
 Interville, IA, 52544
 Phone: 641-437-7023

CHAIN OF CUSTODY



PRINT OR TYPE INFO BELOW:

SAMPLER: Ed Betch

SITE NAME: Crawford

ADDRESS: 5707 F Avenue NW

CITY/ST/ZIP: Cedar Rapids, Iowa

PHONE:

REPORT TO: **NAME:** Ed Betch

CO. NAME: EB Solutions, Inc.

ADDRESS: 5060 4th Street SW

CITY/ST/ZIP: Cedar Rapids, Iowa 52404

PHONE: 319-249-3293

Email: edbertch@ebsolutionsinc-web.com

BILL TO: **NAME:** Same as Report

CO. NAME:

ADDRESS:

CITY/ST/ZIP:

PHONE:

Email:

CLIENT SAMPLE #	DATE	TIME	# OF CONTAINERS	MATRIX	GRAB/COMPOSITE	Formaldehyde	ANALYSES REQUIRED								LAB USE ONLY										
							1	2	3	4	5	6	7	8		9	10								
MW2	7/17/25	1:56	2	GW	Grab	X																			

LAB USE ONLY

Wk Order #: 1162105

Short Hold:

Rush:

Temp: OC 0.0 ice

Sample Condition

Sample #: 01

Relinquished by: (Signature) *[Signature]* **Date:** 7/17/25 **Time:** 5:12

Received by: (Signature) *[Signature]* **Date:** 7/18/25 **Time:** 13:35

Relinquished by: (Signature) *[Signature]* **Date:** **Time:**

Received for Lab by: (Signature) *[Signature]*

Remarks:



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11G2106

EB Solutions, Inc.

Project Name: Water Analysis

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 07/18/2025
Reported: 07/22/2025

Analytical Testing Parameters

Client Sample ID:	MW1	Collected By:	Bertch, Ed
Sample Matrix:	Aqueous	Collection Date:	07/17/2025 10:25
Lab Sample ID:	11G2106-01		

Determination of Carbonyl Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 8315A							
Formaldehyde	<20.0	20.0	ug/L		07/18/25 1445	07/21/25 1414	PDS

Definitions

RL: Reporting Limit

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <<https://www.microbac.com/standard-terms-conditions>>.

Reviewed and Approved By:

Sue Thompson
Client Services Manager
07/22/25 17:38

Keystone

LABORATORIES, INC.

600 E. 17th St. S
 Newton, IA, 50208
 Phone: 641-792-8451

3012 Ansborough
 Waterloo, IA, 507C
 Phone: 319-235-44

EB Solutions, Inc.
 PM: Heather Murphy

E Van Buren St
 erville, IA, 52544
 ne: 641-437-7023

CHAIN OF CUSTODY



PRINT OR TYPE INFO BELOW:

SAMPLER: Ed Berch	REPORT TO: NAME: Ed Berch	BILL TO: NAME: Same as Report
SITE NAME: Crawford	CO. NAME: EB Solutions, Inc.	CO. NAME:
ADDRESS: 5707 F Avenue NW	ADDRESS: 5060 4th Street SW	ADDRESS:
CITY/ST/ZIP: Cedar Rapids, Iowa	CITY/ST/ZIP: Cedar Rapids, Iowa 52404	CITY/ST/ZIP:
PHONE:	PHONE: 319-249-3293	PHONE:
	Email: edberch@ebsolutionsinc-web.com	Email:

CLIENT SAMPLE #	DATE	TIME	# OF CONTAINERS	MATRIX	GRAB/COMPOSITE	Formaldehyde	ANALYSES REQUIRED				LAB USE ONLY											
							Wk Order #:	Short Hold:	Rush:	Temp.:	Sample Condition	Sample #										
MW1	7/16/25	10:25	2	GW	Grab	X																

Relinquished by: (Signature)	Date: 7/16/25	Time: 11:00	Received by: (Signature)	Date:	Time:	Remarks:
<i>[Signature]</i>			<i>[Signature]</i>			
Relinquished by: (Signature)	Date:	Time:	Received for Lab by: (Signature)	Date: 7-18-25	Time: 13:35	
			<i>[Signature]</i>			



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

11G2637

EB Solutions, Inc.

Project Name: Environmental Sampling

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 07/25/2025
Reported: 07/31/2025

Analytical Testing Parameters

Client Sample ID:	MW4	Collected By:	Bertch, Ed
Sample Matrix:	Aqueous	Collection Date:	07/24/2025 11:43
Lab Sample ID:	11G2637-01		

Determination of Carbonyl Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 8315A							
Formaldehyde	<20.0	20.0	ug/L		07/25/25 1003	07/28/25 1317	PDS

Definitions

RL: Reporting Limit

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <<https://www.microbac.com/standard-terms-conditions>>.

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
07/31/25 14:23



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1IH1371

EB Solutions, Inc.

Project Name: Water Analysis

Ed Bertch
5060 4th St SW
Cedar Rapids, IA 52404

Project / PO Number: N/A
Received: 08/13/2025
Reported: 08/19/2025

Analytical Testing Parameters

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (MW5, Aqueous, 1IH1371-01, etc.)

Table with 8 columns: Determination of Carbonyl Compounds, Result, RL, Units, Note, Prepared, Analyzed, Analyst. Row for EPA 8315A Formaldehyde.

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (MW3, Aqueous, 1IH1371-02, etc.)

Table with 8 columns: Determination of Carbonyl Compounds, Result, RL, Units, Note, Prepared, Analyzed, Analyst. Row for EPA 8315A Formaldehyde.

Definitions

RL: Reporting Limit

Report Comments

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.

Reviewed and Approved By:

Handwritten signature of Heather Murphy

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
08/19/25 09:28

CHAIN OF CUSTODY RECORD



Iron St
A. 52544
437-7023

3012 Ansborough Ave
Waterloo, IA. 50701
Phone: 319-235-4440

600 E. 17th St. S
Newton, IA. 50208
Phone: 641-792-8451

Keystone
LABORATORIES, INC.

EB Solutions, Inc.
PM: Heather Murphy

REPORT TO:		NAME: Ed Bertsch	
SAMPLER: Ed Bertsch		NAME: Same as Report	
SITE NAME: Crawford		CO. NAME: EB Solutions, Inc.	
ADDRESS: 5707 F Avenue NW		ADDRESS:	
CITY/ST/ZIP: Cedar Rapids, Iowa		CITY/ST/ZIP:	
PHONE:		PHONE:	
Email: edbertsch@ebsolutionsinc-web.com		Email:	

CLIENT SAMPLE #	DATE	TIME	# OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED				LAB USE ONLY					
						Formaldehyde				Wk Order #	Short Hold:	Rush:	Temp.	Sample Condition	Sample #
MW5	8/12/25	9:30	2	GW Grab	X										
MW3	8/12/25	10:05	2	GW Grab	X										

Relinquished by: (Signature) <i>[Signature]</i>	Date: 8/12/25	Remarks:
	Time: 10:35	
Relinquished by: (Signature) <i>[Signature]</i>	Date: 8/13/25	Received for Lab by: (Signature) <i>[Signature]</i>
	Time: 12:06pm	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 2/25/2025 11:33:38 AM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-299925-1

Eurofins Cedar Falls

Job Notes

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Authorization



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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-299925-1

Job ID: 310-299925-1

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Job Narrative 310-299925-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 sample was received on 2/6/2025 9:05 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 4.5°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW1 (310-299925-1). 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

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

General Chemistry

Method 9020B: Breakthrough exceeded 10% for the following sample: MW1 (310-299925-1).

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

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Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-299925-1	MW1	Water	02/04/25 10:35	02/06/25 09:05

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Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

Client Sample ID: MW1

Lab Sample ID: 310-299925-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.33		5.00		mg/L	5		9056A	Total/NA
Sulfate	950		50.0		mg/L	50		9056A	Total/NA
Barium	0.0210		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.0790		0.0100		mg/L	1		6020B	Total/NA
Boron	0.128		0.100		mg/L	1		6020B	Dissolved
Manganese	0.0781		0.0100		mg/L	1		6020B	Dissolved
Halogens, Total Organic	185		40.0		ug/L	1		9020B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

Client Sample ID: MW1

Lab Sample ID: 310-299925-1

Date Collected: 02/04/25 10:35

Matrix: Water

Date Received: 02/06/25 09:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/13/25 18:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120					02/13/25 18:00	1
Dibromofluoromethane (Surr)	99		73 - 130					02/13/25 18:00	1
Toluene-d8 (Surr)	93		80 - 120					02/13/25 18:00	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.33		5.00		mg/L			02/07/25 13:51	5
Fluoride	<1.00		1.00		mg/L			02/07/25 13:51	5
Sulfate	950		50.0		mg/L			02/07/25 14:02	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		02/11/25 08:45	02/14/25 17:15	1
Barium	0.0210		0.00200		mg/L		02/11/25 08:45	02/14/25 17:15	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 17:15	1
Manganese	0.0790		0.0100		mg/L		02/11/25 08:45	02/14/25 17:15	1
Zinc	<0.0200		0.0200		mg/L		02/11/25 08:45	02/14/25 17:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/13/25 08:30	02/14/25 17:26	1
Arsenic	<0.00200		0.00200		mg/L		02/13/25 08:30	02/14/25 17:26	1
Boron	0.128		0.100		mg/L		02/13/25 08:30	02/14/25 17:26	1
Cobalt	<0.000500		0.000500		mg/L		02/13/25 08:30	02/14/25 17:26	1
Iron	<0.100		0.100		mg/L		02/13/25 08:30	02/14/25 17:26	1
Manganese	0.0781		0.0100		mg/L		02/13/25 08:30	02/14/25 17:26	1
Molybdenum	<0.00200		0.00200		mg/L		02/13/25 08:30	02/14/25 17:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		02/14/25 08:38	02/17/25 18:48	1
Halogens, Total Organic (SW846 9020B)	185		40.0		ug/L		02/24/25 06:24	02/25/25 05:44	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		02/06/25 16:00	02/06/25 19:53	1
Total Suspended Solids (USGS I-3765-85)	<5.00		5.00		mg/L			02/06/25 15:29	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			02/11/25 14:45	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(73-130)	(80-120)
310-299925-1	MW1	104	99	93
LCS 310-446794/6	Lab Control Sample	101	97	101
MB 310-446794/5	Method Blank	106	101	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

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

Lab Sample ID: MB 310-446794/5
Matrix: Water
Analysis Batch: 446794

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/13/25 09:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120					02/13/25 09:48	1
Dibromofluoromethane (Surr)	101		73 - 130					02/13/25 09:48	1
Toluene-d8 (Surr)	96		80 - 120					02/13/25 09:48	1

Lab Sample ID: LCS 310-446794/6
Matrix: Water
Analysis Batch: 446794

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	40.78		ug/L		102	50 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	101		80 - 120				
Dibromofluoromethane (Surr)	97		73 - 130				
Toluene-d8 (Surr)	101		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-446507/3
Matrix: Water
Analysis Batch: 446507

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			02/07/25 11:38	1
Fluoride	<0.200		0.200		mg/L			02/07/25 11:38	1
Sulfate	<1.00		1.00		mg/L			02/07/25 11:38	1

Lab Sample ID: LCS 310-446507/4
Matrix: Water
Analysis Batch: 446507

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	10.14		mg/L		101	90 - 110
Fluoride	2.00	2.031		mg/L		102	90 - 110
Sulfate	10.0	9.614		mg/L		96	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-446622/1-A
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 446622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		02/11/25 08:45	02/14/25 15:41	1
Barium	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 15:41	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 15:41	1

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

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

Lab Sample ID: MB 310-446622/1-A
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 446622

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Zinc	<0.0200		0.0200		mg/L		02/11/25 08:45	02/14/25 15:41	1
Manganese	<0.0100		0.0100		mg/L		02/11/25 08:45	02/14/25 15:41	1

Lab Sample ID: LCS 310-446622/2-A
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 446622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Aluminum	0.200	0.2072		mg/L		104	80 - 120	
Barium	0.100	0.1062		mg/L		106	80 - 120	
Cadmium	0.100	0.09965		mg/L		100	80 - 120	
Zinc	0.200	0.1949		mg/L		97	80 - 120	
Manganese	0.100	0.09851		mg/L		99	80 - 120	

Lab Sample ID: MB 310-446625/1-B
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 446771

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		02/13/25 08:30	02/14/25 17:21	1
Arsenic	<0.00200		0.00200		mg/L		02/13/25 08:30	02/14/25 17:21	1
Boron	<0.100		0.100		mg/L		02/13/25 08:30	02/14/25 17:21	1
Cobalt	<0.000500		0.000500		mg/L		02/13/25 08:30	02/14/25 17:21	1
Iron	<0.100		0.100		mg/L		02/13/25 08:30	02/14/25 17:21	1
Manganese	<0.0100		0.0100		mg/L		02/13/25 08:30	02/14/25 17:21	1
Molybdenum	<0.00200		0.00200		mg/L		02/13/25 08:30	02/14/25 17:21	1

Lab Sample ID: LCS 310-446625/2-B
Matrix: Water
Analysis Batch: 446979

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 446771

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Antimony	0.200	0.2065		mg/L		103	80 - 120	
Arsenic	0.200	0.1879		mg/L		94	80 - 120	
Boron	0.200	0.1939		mg/L		97	80 - 120	
Cobalt	0.100	0.1022		mg/L		102	80 - 120	
Iron	0.200	0.1901		mg/L		95	80 - 120	
Manganese	0.100	0.09781		mg/L		98	80 - 120	
Molybdenum	0.200	0.1971		mg/L		99	80 - 120	

Lab Sample ID: 310-299925-1 MS
Matrix: Water
Analysis Batch: 446979

Client Sample ID: MW1
Prep Type: Dissolved
Prep Batch: 446771

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	
Antimony	<0.00200		0.200	0.2228		mg/L		111	75 - 125	
Arsenic	<0.00200		0.200	0.2079		mg/L		104	75 - 125	
Boron	0.128		0.200	0.3260		mg/L		99	75 - 125	
Cobalt	<0.000500		0.100	0.1006		mg/L		101	75 - 125	
Iron	<0.100		0.200	0.1994		mg/L		100	75 - 125	

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

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

Lab Sample ID: 310-299925-1 MS
Matrix: Water
Analysis Batch: 446979

Client Sample ID: MW1
Prep Type: Dissolved
Prep Batch: 446771

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	0.0781		0.100	0.1777		mg/L		100	75 - 125
Molybdenum	<0.00200		0.200	0.2156		mg/L		107	75 - 125

Lab Sample ID: 310-299925-1 MSD
Matrix: Water
Analysis Batch: 446979

Client Sample ID: MW1
Prep Type: Dissolved
Prep Batch: 446771

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2304		mg/L		115	75 - 125	3	20
Arsenic	<0.00200		0.200	0.2128		mg/L		106	75 - 125	2	20
Boron	0.128		0.200	0.3378		mg/L		105	75 - 125	4	20
Cobalt	<0.000500		0.100	0.1043		mg/L		104	75 - 125	4	20
Iron	<0.100		0.200	0.2067		mg/L		103	75 - 125	4	20
Manganese	0.0781		0.100	0.1832		mg/L		105	75 - 125	3	20
Molybdenum	<0.00200		0.200	0.2219		mg/L		110	75 - 125	3	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-446882/1-A
Matrix: Water
Analysis Batch: 447019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 446882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L		02/14/25 08:38	02/17/25 18:28	1

Lab Sample ID: LCS 310-446882/2-A
Matrix: Water
Analysis Batch: 447019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 446882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	3.650		mg/L		91	90 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-876866/1-A
Matrix: Water
Analysis Batch: 876910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 876866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<40.0		40.0		ug/L		02/24/25 06:24	02/24/25 13:58	1

Lab Sample ID: LCS 680-876866/2-A
Matrix: Water
Analysis Batch: 876910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 876866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	400	376.0		ug/L		94	60 - 140

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

Method: 9020B - Organic Halides, Total (TOX) (Continued)

Lab Sample ID: 310-299925-1 MS
Matrix: Water
Analysis Batch: 876910

Client Sample ID: MW1
Prep Type: Total/NA
Prep Batch: 876866

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	185		400	426.0		ug/L		60	60 - 140

Lab Sample ID: 310-299925-1 MSD
Matrix: Water
Analysis Batch: 876910

Client Sample ID: MW1
Prep Type: Total/NA
Prep Batch: 876866

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Halogens, Total Organic	185		400	484.3		ug/L		75	60 - 140	13	40

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-446322/1-A
Matrix: Water
Analysis Batch: 446385

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 446322

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		02/06/25 10:27	02/06/25 19:50	1

Lab Sample ID: LCS 310-446322/2-A
Matrix: Water
Analysis Batch: 446385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 446322

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09696		mg/L		97	90 - 110

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-446372/1
Matrix: Water
Analysis Batch: 446372

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			02/06/25 15:29	1

Lab Sample ID: LCS 310-446372/2
Matrix: Water
Analysis Batch: 446372

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	95.00		mg/L		95	81 - 116

Method: SM 5220D - COD

Lab Sample ID: MB 310-446709/32
Matrix: Water
Analysis Batch: 446709

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			02/11/25 14:45	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 310-446709/33

Matrix: Water

Analysis Batch: 446709

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	127.2		mg/L		101	85 - 110

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QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

GC/MS VOA

Analysis Batch: 446794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	8260D	
MB 310-446794/5	Method Blank	Total/NA	Water	8260D	
LCS 310-446794/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 446507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	9056A	
310-299925-1	MW1	Total/NA	Water	9056A	
MB 310-446507/3	Method Blank	Total/NA	Water	9056A	
LCS 310-446507/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 446622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	3005A	
MB 310-446622/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-446622/2-A	Lab Control Sample	Total/NA	Water	3005A	

Filtration Batch: 446625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Dissolved	Water	Filtration	
MB 310-446625/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-446625/2-B	Lab Control Sample	Dissolved	Water	Filtration	
310-299925-1 MS	MW1	Dissolved	Water	Filtration	
310-299925-1 MSD	MW1	Dissolved	Water	Filtration	

Prep Batch: 446771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Dissolved	Water	3005A	446625
MB 310-446625/1-B	Method Blank	Dissolved	Water	3005A	446625
LCS 310-446625/2-B	Lab Control Sample	Dissolved	Water	3005A	446625
310-299925-1 MS	MW1	Dissolved	Water	3005A	446625
310-299925-1 MSD	MW1	Dissolved	Water	3005A	446625

Analysis Batch: 446979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Dissolved	Water	6020B	446771
310-299925-1	MW1	Total/NA	Water	6020B	446622
MB 310-446622/1-A	Method Blank	Total/NA	Water	6020B	446622
MB 310-446625/1-B	Method Blank	Dissolved	Water	6020B	446771
LCS 310-446622/2-A	Lab Control Sample	Total/NA	Water	6020B	446622
LCS 310-446625/2-B	Lab Control Sample	Dissolved	Water	6020B	446771
310-299925-1 MS	MW1	Dissolved	Water	6020B	446771
310-299925-1 MSD	MW1	Dissolved	Water	6020B	446771

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

General Chemistry

Prep Batch: 446322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	Distill/Phenol	
MB 310-446322/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-446322/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 446372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	I-3765-85	
MB 310-446372/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-446372/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 446385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	9066	446322
MB 310-446322/1-A	Method Blank	Total/NA	Water	9066	446322
LCS 310-446322/2-A	Lab Control Sample	Total/NA	Water	9066	446322

Analysis Batch: 446709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	SM 5220D	
MB 310-446709/32	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-446709/33	Lab Control Sample	Total/NA	Water	SM 5220D	

Prep Batch: 446882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	Distill/Ammonia	
MB 310-446882/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-446882/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 447019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	350.1	446882
MB 310-446882/1-A	Method Blank	Total/NA	Water	350.1	446882
LCS 310-446882/2-A	Lab Control Sample	Total/NA	Water	350.1	446882

Prep Batch: 876866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	Carbon Trap	
MB 680-876866/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-876866/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
310-299925-1 MS	MW1	Total/NA	Water	Carbon Trap	
310-299925-1 MSD	MW1	Total/NA	Water	Carbon Trap	

Analysis Batch: 876910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-299925-1	MW1	Total/NA	Water	9020B	876866
MB 680-876866/1-A	Method Blank	Total/NA	Water	9020B	876866
LCS 680-876866/2-A	Lab Control Sample	Total/NA	Water	9020B	876866
310-299925-1 MS	MW1	Total/NA	Water	9020B	876866
310-299925-1 MSD	MW1	Total/NA	Water	9020B	876866

Eurofins Cedar Falls

Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-299925-1

Client Sample ID: MW1

Lab Sample ID: 310-299925-1

Date Collected: 02/04/25 10:35

Matrix: Water

Date Received: 02/06/25 09:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446794	WSE8	EET CF	02/13/25 18:00
Total/NA	Analysis	9056A		5	446507	WZC8	EET CF	02/07/25 13:51
Total/NA	Analysis	9056A		50	446507	WZC8	EET CF	02/07/25 14:02
Dissolved	Filtration	Filtration			446625	QTZ5	EET CF	02/10/25 15:50
Dissolved	Prep	3005A			446771	QTZ5	EET CF	02/13/25 08:30
Dissolved	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 17:26
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 17:15
Total/NA	Prep	Distill/Ammonia			446882	RLT9	EET CF	02/14/25 08:38
Total/NA	Analysis	350.1		1	447019	ZJX4	EET CF	02/17/25 18:48
Total/NA	Prep	Carbon Trap			876866	CLJ	EET SAV	02/24/25 06:24
Total/NA	Analysis	9020B		1	876910	CLJ	EET SAV	02/25/25 05:44
Total/NA	Prep	Distill/Phenol			446322	A3GU	EET CF	02/06/25 16:00
Total/NA	Analysis	9066		1	446385	ZJX4	EET CF	02/06/25 19:53
Total/NA	Analysis	I-3765-85		1	446372	XJ7V	EET CF	02/06/25 15:29
Total/NA	Analysis	SM 5220D		5	446709	ENB7	EET CF	02/11/25 14:45

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: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-299925-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-25
ANAB	Dept. of Defense ELAP	L2463	09-22-26
Arkansas (DW)	State	GA00006	06-30-25
Florida	NELAP	E87052	06-30-25
Georgia	State	E87052	06-30-25
Georgia (DW)	State	803	06-30-25
Guam	State	24-05R	04-17-25
Hawaii	State	<cert No.>	06-30-25
Illinois	NELAP	200022	11-30-25
Iowa	State	353	07-01-25
Kentucky (UST)	State	108138	06-30-24 *
Louisiana (All)	NELAP	30690	06-30-25
Maine	State	GA00006	09-25-26
Michigan	State	9925	03-05-25
Mississippi	State	<cert No.>	06-30-25
Nebraska	State	NE-OS-7-04	06-30-25
New Mexico	State	GA00006	06-30-25
North Carolina (DW)	State	13701	07-31-25
North Carolina (WW/SW)	State	269	12-31-25
Puerto Rico	State	GA00006	01-15-26
South Carolina	State	98001	06-30-26
Tennessee	State	TN02961	06-30-25
Texas	TCEQ Water Supply	T104704185	06-30-25
USDA	US Federal Programs	P330-18-00313	04-04-27
Virginia	NELAP	460161	06-14-25
Wyoming	State	8TMS-L	06-30-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-299925-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

- EPA = US Environmental Protection Agency
- EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992
- None = None
- 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.
- USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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





Environment Testing
America



310-299925 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>EB Solutions</u>			
City/State:	<u>Cedar Rapids IA</u>	STATE	Project:
Receipt Information			
Date/Time Received:	DATE <u>2.6.25</u>	TIME <u>0905</u>	Received By: <u>CGC</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>P</u>	Correction Factor (°C):	<u>0</u>
• 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(s) used:	<u>CONTAINER 1</u> <u>1L Plastic Unpreserved</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C):	<u>4.5</u>		
Corrected Temp (°C):	<u>4.5</u>		
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Chain of Custody Record



Client Information Client Contact: Edward Berich Company: EB Solutions Inc Address: 5060 4th St. SW City: Cedar Rapids State/Zip: IA, 52404 Phone: [Redacted] Email: edberich@absolutionsinc-web.com Project Name: Crawford Project Site: [Redacted]		Lab Pk# Bindert Zach T E-Mail: zach.bindert@testamericanc.com COC No. 310-36804-12214 1 Page 1 of 1 Job #	
Due Date Requested TAT Requested (days)		Analysis Requested 8270D 2,4-Dinitrochloro, Pyridine Pentachlor <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) 8260C Benzene and Methyl Ethyl Ketone 9066 Total Recoverable Phenolics Total Metals 6020A, 7470A 9056A_ORGFM_28D Chloride, Fluoride, Sulfate 6020A Dissolved Metals 9020B Total Organic Halides (TOX) 9020E Total Organic Halides (TOX)	
Sample Date 2-4-25	Sample Time 10:35	Sample Type G=grab G	Matrix Water
Sample Identification MW 1			
Total Number of Containers 12			
Special Instructions/Note [Redacted]			
Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O Ac2O2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R H2SO4 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skn Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)			
Empty Kit Relinquished by Relinquished by [Signature] Relinquished by [Signature] Relinquished by [Signature]			
Custody Seals Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-299925-1

Login Number: 299925

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Collins, Charlotte G

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



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-299925-1

Login Number: 299925

List Number: 2

Creator: Faught, Timothy

List Source: Eurofins Savannah

List Creation: 02/07/25 01:08 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	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 2/26/2025 2:38:51 PM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-300245-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016



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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-300245-1

Job ID: 310-300245-1

Eurofins Cedar Falls

Job Narrative 310-300245-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 sample was received on 2/12/2025 9:50 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 4.3°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW2 (310-300245-1). 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

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

General Chemistry

Method 9020B: Breakthrough exceeded 10% for the following sample: MW2 (310-300245-1).

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

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
310-300245-1	MW2	Water	02/10/25 12:05	02/12/25 09:50

1

2

3

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Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

Client Sample ID: MW2

Lab Sample ID: 310-300245-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.39		5.00		mg/L	5		9056A	Total/NA
Sulfate	13.3		5.00		mg/L	5		9056A	Total/NA
Barium	0.114		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.0509		0.0100		mg/L	1		6020B	Total/NA
Boron	0.143		0.100		mg/L	1		6020B	Dissolved
Manganese	0.0546		0.0100		mg/L	1		6020B	Dissolved
Halogens, Total Organic	97.1		40.0		ug/L	1		9020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

Client Sample ID: MW2

Lab Sample ID: 310-300245-1

Date Collected: 02/10/25 12:05

Matrix: Water

Date Received: 02/12/25 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/13/25 17:38	1
Benzene	<0.500		0.500		ug/L			02/13/25 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120					02/13/25 17:38	1
Dibromofluoromethane (Surr)	101		73 - 130					02/13/25 17:38	1
Toluene-d8 (Surr)	96		80 - 120					02/13/25 17:38	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.39		5.00		mg/L			02/17/25 11:23	5
Fluoride	<1.00		1.00		mg/L			02/17/25 11:23	5
Sulfate	13.3		5.00		mg/L			02/17/25 11:23	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		02/18/25 09:00	02/20/25 15:09	1
Barium	0.114		0.00200		mg/L		02/18/25 09:00	02/20/25 15:09	1
Cadmium	<0.000200		0.000200		mg/L		02/18/25 09:00	02/20/25 15:09	1
Manganese	0.0509		0.0100		mg/L		02/18/25 09:00	02/20/25 15:09	1
Zinc	<0.0200		0.0200		mg/L		02/18/25 09:00	02/20/25 15:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:11	1
Arsenic	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:11	1
Boron	0.143		0.100		mg/L		02/21/25 08:45	02/24/25 15:11	1
Cobalt	<0.000500		0.000500		mg/L		02/21/25 08:45	02/24/25 15:11	1
Iron	<0.100		0.100		mg/L		02/21/25 08:45	02/24/25 15:11	1
Manganese	0.0546		0.0100		mg/L		02/21/25 08:45	02/24/25 15:11	1
Molybdenum	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		02/14/25 08:31	02/17/25 21:28	1
Halogens, Total Organic (SW846 9020B)	97.1		40.0		ug/L		02/24/25 06:24	02/24/25 18:50	1
Phenols, Total (SW846 9066)	<0.0188		0.0188		mg/L		02/12/25 11:53	02/12/25 18:12	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88		mg/L			02/12/25 11:19	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			02/17/25 09:11	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(73-130)	(80-120)
310-300245-1	MW2	106	101	96
LCS 310-446794/6	Lab Control Sample	101	97	101
MB 310-446794/5	Method Blank	106	101	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

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

Lab Sample ID: MB 310-446794/5
Matrix: Water
Analysis Batch: 446794

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Butanone (MEK)	<10.0		10.0		ug/L			02/13/25 09:48	1
Benzene	<0.500		0.500		ug/L			02/13/25 09:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120					02/13/25 09:48	1
Dibromofluoromethane (Surr)	101		73 - 130					02/13/25 09:48	1
Toluene-d8 (Surr)	96		80 - 120					02/13/25 09:48	1

Lab Sample ID: LCS 310-446794/6
Matrix: Water
Analysis Batch: 446794

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	20.0	18.65		ug/L		93	72 - 124
Surrogate	%Recovery	LCS	Qualifier	Limits			
4-Bromofluorobenzene (Surr)	101			80 - 120			
Dibromofluoromethane (Surr)	97			73 - 130			
Toluene-d8 (Surr)	101			80 - 120			

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-447046/3
Matrix: Water
Analysis Batch: 447046

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<1.00		1.00		mg/L			02/17/25 09:11	1
Fluoride	<0.200		0.200		mg/L			02/17/25 09:11	1
Sulfate	<1.00		1.00		mg/L			02/17/25 09:11	1

Lab Sample ID: LCS 310-447046/4
Matrix: Water
Analysis Batch: 447046

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.00	2.157		mg/L		108	90 - 110
Sulfate	10.0	9.574		mg/L		96	90 - 110

Lab Sample ID: 310-300245-1 MS
Matrix: Water
Analysis Batch: 447046

Client Sample ID: MW2
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Chloride	5.39		25.0	27.13		mg/L		87	80 - 120
Fluoride	<1.00		5.00	5.535		mg/L		111	80 - 120
Sulfate	13.3		25.0	36.30		mg/L		92	80 - 120

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 310-300245-1 MSD
Matrix: Water
Analysis Batch: 447046

Client Sample ID: MW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5.39		25.0	27.49		mg/L		88	80 - 120	1	15
Fluoride	<1.00		5.00	5.605		mg/L		112	80 - 120	1	15
Sulfate	13.3		25.0	36.42		mg/L		92	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-447000/1-A
Matrix: Water
Analysis Batch: 447303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		02/18/25 09:00	02/20/25 14:49	1
Barium	<0.00200		0.00200		mg/L		02/18/25 09:00	02/20/25 14:49	1
Cadmium	<0.000200		0.000200		mg/L		02/18/25 09:00	02/20/25 14:49	1
Zinc	<0.0200		0.0200		mg/L		02/18/25 09:00	02/20/25 14:49	1
Manganese	<0.0100		0.0100		mg/L		02/18/25 09:00	02/20/25 14:49	1

Lab Sample ID: LCS 310-447000/2-A
Matrix: Water
Analysis Batch: 447303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2112		mg/L		106	80 - 120
Barium	0.100	0.1011		mg/L		101	80 - 120
Cadmium	0.100	0.09708		mg/L		97	80 - 120
Zinc	0.200	0.2001		mg/L		100	80 - 120
Manganese	0.100	0.09620		mg/L		96	80 - 120

Lab Sample ID: MB 310-447147/1-B
Matrix: Water
Analysis Batch: 447407

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 447314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:05	1
Arsenic	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:05	1
Cobalt	<0.000500		0.000500		mg/L		02/21/25 08:45	02/24/25 15:05	1
Iron	<0.100		0.100		mg/L		02/21/25 08:45	02/24/25 15:05	1
Manganese	<0.0100		0.0100		mg/L		02/21/25 08:45	02/24/25 15:05	1
Molybdenum	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:05	1

Lab Sample ID: MB 310-447147/1-B
Matrix: Water
Analysis Batch: 447521

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 447314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		02/21/25 08:45	02/25/25 11:23	1

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

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

Lab Sample ID: LCS 310-447147/2-B
Matrix: Water
Analysis Batch: 447407

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 447314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2016		mg/L		101	80 - 120
Arsenic	0.200	0.1935		mg/L		97	80 - 120
Cobalt	0.100	0.09752		mg/L		98	80 - 120
Iron	0.200	0.1897		mg/L		95	80 - 120
Manganese	0.100	0.09554		mg/L		96	80 - 120
Molybdenum	0.200	0.1943		mg/L		97	80 - 120

Lab Sample ID: LCS 310-447147/2-B
Matrix: Water
Analysis Batch: 447521

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 447314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.1731		mg/L		87	80 - 120

Lab Sample ID: 310-300245-1 MS
Matrix: Water
Analysis Batch: 447407

Client Sample ID: MW2
Prep Type: Dissolved
Prep Batch: 447314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2161		mg/L		108	75 - 125
Arsenic	<0.00200		0.200	0.2077		mg/L		104	75 - 125
Boron	0.143		0.200	0.3254		mg/L		91	75 - 125
Cobalt	<0.000500		0.100	0.1001		mg/L		100	75 - 125
Iron	<0.100		0.200	0.2006		mg/L		100	75 - 125
Manganese	0.0546		0.100	0.1559		mg/L		101	75 - 125
Molybdenum	<0.00200		0.200	0.2113		mg/L		105	75 - 125

Lab Sample ID: 310-300245-1 MSD
Matrix: Water
Analysis Batch: 447407

Client Sample ID: MW2
Prep Type: Dissolved
Prep Batch: 447314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	<0.00200		0.200	0.2179		mg/L		109	75 - 125	1	20
Arsenic	<0.00200		0.200	0.2089		mg/L		104	75 - 125	1	20
Boron	0.143		0.200	0.3157		mg/L		86	75 - 125	3	20
Cobalt	<0.000500		0.100	0.09978		mg/L		100	75 - 125	0	20
Iron	<0.100		0.200	0.2008		mg/L		100	75 - 125	0	20
Manganese	0.0546		0.100	0.1565		mg/L		102	75 - 125	0	20
Molybdenum	<0.00200		0.200	0.2129		mg/L		106	75 - 125	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-446879/1-A
Matrix: Water
Analysis Batch: 447022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 446879

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L		02/14/25 08:31	02/17/25 21:15	1

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-446879/2-A
Matrix: Water
Analysis Batch: 447022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 446879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	3.725		mg/L		93	90 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-876866/1-A
Matrix: Water
Analysis Batch: 876910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 876866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<40.0		40.0		ug/L		02/24/25 06:24	02/24/25 13:58	1

Lab Sample ID: LCS 680-876866/2-A
Matrix: Water
Analysis Batch: 876910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 876866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	400	376.0		ug/L		94	60 - 140

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-446739/1-A
Matrix: Water
Analysis Batch: 446777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 446739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0192		0.0192		mg/L		02/12/25 08:09	02/12/25 18:07	1

Lab Sample ID: LCS 310-446739/10-A
Matrix: Water
Analysis Batch: 446777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 446739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09102		mg/L		91	90 - 110

Lab Sample ID: LCS 310-446739/2-A
Matrix: Water
Analysis Batch: 446777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 446739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09251		mg/L		93	90 - 110

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-446760/1
Matrix: Water
Analysis Batch: 446760

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			02/12/25 11:19	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

Method: I-3765-85 - Residue, Non-filterable (TSS) (Continued)

Lab Sample ID: LCS 310-446760/2
Matrix: Water
Analysis Batch: 446760

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	97.00		mg/L		97	81 - 116

Method: SM 5220D - COD

Lab Sample ID: MB 310-446963/32
Matrix: Water
Analysis Batch: 446963

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			02/17/25 09:11	1

Lab Sample ID: LCS 310-446963/33
Matrix: Water
Analysis Batch: 446963

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	124.3		mg/L		99	85 - 110

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

GC/MS VOA

Analysis Batch: 446794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	8260D	
MB 310-446794/5	Method Blank	Total/NA	Water	8260D	
LCS 310-446794/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 447046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	9056A	
MB 310-447046/3	Method Blank	Total/NA	Water	9056A	
LCS 310-447046/4	Lab Control Sample	Total/NA	Water	9056A	
310-300245-1 MS	MW2	Total/NA	Water	9056A	
310-300245-1 MSD	MW2	Total/NA	Water	9056A	

Metals

Prep Batch: 447000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	3005A	
MB 310-447000/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-447000/2-A	Lab Control Sample	Total/NA	Water	3005A	

Filtration Batch: 447147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Dissolved	Water	Filtration	
MB 310-447147/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	Filtration	
310-300245-1 MS	MW2	Dissolved	Water	Filtration	
310-300245-1 MSD	MW2	Dissolved	Water	Filtration	

Analysis Batch: 447303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	6020B	447000
MB 310-447000/1-A	Method Blank	Total/NA	Water	6020B	447000
LCS 310-447000/2-A	Lab Control Sample	Total/NA	Water	6020B	447000

Prep Batch: 447314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Dissolved	Water	3005A	447147
MB 310-447147/1-B	Method Blank	Dissolved	Water	3005A	447147
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	3005A	447147
310-300245-1 MS	MW2	Dissolved	Water	3005A	447147
310-300245-1 MSD	MW2	Dissolved	Water	3005A	447147

Analysis Batch: 447407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Dissolved	Water	6020B	447314
MB 310-447147/1-B	Method Blank	Dissolved	Water	6020B	447314
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	6020B	447314
310-300245-1 MS	MW2	Dissolved	Water	6020B	447314
310-300245-1 MSD	MW2	Dissolved	Water	6020B	447314

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QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

Metals

Analysis Batch: 447521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-447147/1-B	Method Blank	Dissolved	Water	6020B	447314
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	6020B	447314

General Chemistry

Prep Batch: 446739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	Distill/Phenol	
MB 310-446739/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-446739/10-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
LCS 310-446739/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 446760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	I-3765-85	
MB 310-446760/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-446760/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 446777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	9066	446739
MB 310-446739/1-A	Method Blank	Total/NA	Water	9066	446739
LCS 310-446739/10-A	Lab Control Sample	Total/NA	Water	9066	446739
LCS 310-446739/2-A	Lab Control Sample	Total/NA	Water	9066	446739

Prep Batch: 446879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	Distill/Ammonia	
MB 310-446879/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-446879/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 446963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	SM 5220D	
MB 310-446963/32	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-446963/33	Lab Control Sample	Total/NA	Water	SM 5220D	

Analysis Batch: 447022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	350.1	446879
MB 310-446879/1-A	Method Blank	Total/NA	Water	350.1	446879
LCS 310-446879/2-A	Lab Control Sample	Total/NA	Water	350.1	446879

Prep Batch: 876866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	Carbon Trap	
MB 680-876866/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-876866/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

General Chemistry

Analysis Batch: 876910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300245-1	MW2	Total/NA	Water	9020B	876866
MB 680-876866/1-A	Method Blank	Total/NA	Water	9020B	876866
LCS 680-876866/2-A	Lab Control Sample	Total/NA	Water	9020B	876866

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Lab Chronicle

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-300245-1

Client Sample ID: MW2
Date Collected: 02/10/25 12:05
Date Received: 02/12/25 09:50

Lab Sample ID: 310-300245-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	446794	WSE8	EET CF	02/13/25 17:38
Total/NA	Analysis	9056A		5	447046	QTZ5	EET CF	02/17/25 11:23
Dissolved	Filtration	Filtration			447147	F5MW	EET CF	02/19/25 12:00
Dissolved	Prep	3005A			447314	QTZ5	EET CF	02/21/25 08:45
Dissolved	Analysis	6020B		1	447407	NFT2	EET CF	02/24/25 15:11
Total/NA	Prep	3005A			447000	F5MW	EET CF	02/18/25 09:00
Total/NA	Analysis	6020B		1	447303	NFT2	EET CF	02/20/25 15:09
Total/NA	Prep	Distill/Ammonia			446879	RLT9	EET CF	02/14/25 08:31
Total/NA	Analysis	350.1		1	447022	ZJX4	EET CF	02/17/25 21:28
Total/NA	Prep	Carbon Trap			876866	CLJ	EET SAV	02/24/25 06:24
Total/NA	Analysis	9020B		1	876910	CLJ	EET SAV	02/24/25 18:50
Total/NA	Prep	Distill/Phenol			446739	HE7K	EET CF	02/12/25 11:53
Total/NA	Analysis	9066		1	446777	ZJX4	EET CF	02/12/25 18:12
Total/NA	Analysis	I-3765-85		1	446760	DGU1	EET CF	02/12/25 11:19
Total/NA	Analysis	SM 5220D		5	446963	ENB7	EET CF	02/17/25 09:11

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: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-300245-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-25
ANAB	Dept. of Defense ELAP	L2463	09-22-26
Arkansas (DW)	State	GA00006	06-30-25
Florida	NELAP	E87052	06-30-25
Georgia	State	E87052	06-30-25
Georgia (DW)	State	803	06-30-25
Guam	State	24-05R	04-17-25
Hawaii	State	<cert No.>	06-30-25
Illinois	NELAP	200022	11-30-25
Iowa	State	353	07-01-25
Kentucky (UST)	State	108138	06-30-24 *
Louisiana (All)	NELAP	30690	06-30-25
Maine	State	GA00006	09-25-26
Michigan	State	9925	03-05-25
Mississippi	State	<cert No.>	06-30-25
Nebraska	State	NE-OS-7-04	06-30-25
New Mexico	State	GA00006	06-30-25
North Carolina (DW)	State	13701	07-31-25
North Carolina (WW/SW)	State	269	12-31-25
Puerto Rico	State	GA00006	01-15-26
South Carolina	State	98001	06-30-26
Tennessee	State	TN02961	06-30-25
Texas	TCEQ Water Supply	T104704185	06-30-25
USDA	US Federal Programs	P330-18-00313	04-04-27
Virginia	NELAP	460161	06-14-25
Wyoming	State	8TMS-L	06-30-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300245-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992

None = None

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.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

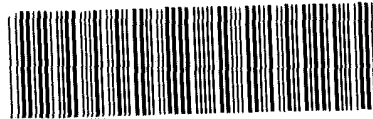
Laboratory References:

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

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



Environment Testing
America



310-300245 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: EB Solutions			
City/State:	CITY Cedar Rapids	STATE IA	Project:
Receipt Information			
Date/Time Received:	DATE 2-12-25	TIME 9:50	Received By: PH
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: P	Correction Factor (°C): 0		
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): 4.3	Corrected Temp (°C): 4.3		
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Chain of Custody Record



Client Information Company: EB Solutions Inc Address: 5060 4th St. SW City: Cedar Rapids State/Zip: IA, 52404 Phone: [blank] Email: edberich@absolutionsinc-web.com Project Name: Crawford Project Site: [blank]		Lab Pkt: Bindert, Zach T E-Mail: zach.bindert@testamericainc.com Camper Tracking No(s): 310-36804-12214 1 Page: Page 1 of 1 Job #: [blank]			
Due Date Requested: [blank] TAT Requested (days): [blank]		Analysis Requested 8270D 2,4-Dinitrofluorene, Pyridine Pentachloro: X Perform MS/MSD (Yes or No): X Field Filtered Sample (Yes or No): X 8270D 2,4-Dinitrofluorene, Pyridine Pentachloro: X Ammonia 350 f, COD 5220D: X 9056A ORGM_28D Chloride, Fluoride Sulfate: X 6020A Dissolved Metals: X Total Metals 6020A 7470A: X 9066 Total Recoverable Phenolics: X Benzene and Methyl Ethyl Ketone: X 8260C Residue Non filterable (TS): X 9020B Total Organic Halides (TOX): X		Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHCO4, F MeOH, G Anchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, Other: [blank] M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2SO3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCA, W pH 4.5, Z other (specify): [blank]	
Sample Identification MWZ Sample Date: 2/11/25 Sample Time: 12:05 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=unknown, A=air): Water Preservation Code: G		Total Number of Containers: 12 Special Instructions/Note: [blank]			
Trip Blank Possible Hazard Identification: <input type="checkbox"/> Non-Hazard, <input type="checkbox"/> Flammable, <input type="checkbox"/> Skin Irritant, <input type="checkbox"/> Poison B, <input type="checkbox"/> Unknown, <input type="checkbox"/> Radiological Deliverable Requested: <input type="checkbox"/> I, <input type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify): [blank]					
Empty Kit Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Date: 2/11/25 9:00 Date/Time: [blank] Date/Time: [blank] Date/Time: [blank]			
Custody Seals Intact: <input type="checkbox"/> Yes, <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: [blank]			



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-300245-1

Login Number: 300245

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

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



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-300245-1

Login Number: 300245

List Number: 2

Creator: Lincoln, Alyssa

List Source: Eurofins Savannah

List Creation: 02/13/25 01:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 3/5/2025 9:24:02 AM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-300566-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
3/5/2025 9:24:02 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016



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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-300566-1

Job ID: 310-300566-1

Eurofins Cedar Falls

Job Narrative 310-300566-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 2/19/2025 10:20 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 2.5°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW3 (310-300566-1). 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

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

General Chemistry

Method 9020B: Breakthrough exceeded 10% for the following sample: MW3 (310-300566-1).

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

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-300566-1	MW3	Water	02/17/25 11:15	02/19/25 10:20
310-300566-2	Trip Blank	Water	02/17/25 00:00	02/19/25 10:20

1

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Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Client Sample ID: MW3

Lab Sample ID: 310-300566-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	110		5.00		mg/L	5		9056A	Total/NA
Sulfate	41.6		5.00		mg/L	5		9056A	Total/NA
Aluminum	0.111		0.0500		mg/L	1		6020B	Total/NA
Barium	0.309		0.00200		mg/L	1		6020B	Total/NA
Molybdenum	0.00257		0.00200		mg/L	1		6020B	Dissolved
Halogens, Total Organic	163		40.0		ug/L	1		9020B	Total/NA
Total Suspended Solids	3.50		1.88		mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-300566-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Client Sample ID: MW3

Lab Sample ID: 310-300566-1

Date Collected: 02/17/25 11:15

Matrix: Water

Date Received: 02/19/25 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/21/25 13:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					02/21/25 13:34	1
Dibromofluoromethane (Surr)	112		73 - 130					02/21/25 13:34	1
Toluene-d8 (Surr)	91		80 - 120					02/21/25 13:34	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		5.00		mg/L			02/20/25 14:56	5
Fluoride	<1.00		1.00		mg/L			02/20/25 14:56	5
Sulfate	41.6		5.00		mg/L			02/20/25 14:56	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.111		0.0500		mg/L		02/20/25 09:00	02/21/25 14:00	1
Barium	0.309		0.00200		mg/L		02/20/25 09:00	02/21/25 14:00	1
Cadmium	<0.000200		0.000200		mg/L		02/20/25 09:00	02/21/25 14:00	1
Manganese	<0.0100		0.0100		mg/L		02/20/25 09:00	02/21/25 14:00	1
Zinc	<0.0200		0.0200		mg/L		02/20/25 09:00	02/21/25 14:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:28	1
Arsenic	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:28	1
Boron	<0.100		0.100		mg/L		02/21/25 08:45	02/24/25 15:28	1
Cobalt	<0.000500		0.000500		mg/L		02/21/25 08:45	02/24/25 15:28	1
Iron	<0.100		0.100		mg/L		02/21/25 08:45	02/24/25 15:28	1
Manganese	<0.0100		0.0100		mg/L		02/21/25 08:45	02/24/25 15:28	1
Molybdenum	0.00257		0.00200		mg/L		02/21/25 08:45	02/24/25 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		02/19/25 11:08	02/19/25 20:47	1
Halogens, Total Organic (SW846 9020B)	163		40.0		ug/L		02/25/25 08:10	02/26/25 08:15	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		02/20/25 08:49	02/20/25 15:34	1
Total Suspended Solids (USGS I-3765-85)	3.50		1.88		mg/L			02/20/25 06:48	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			02/21/25 08:17	5

Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-300566-2

Date Collected: 02/17/25 00:00

Matrix: Water

Date Received: 02/19/25 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/21/25 12:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					02/21/25 12:48	1
Dibromofluoromethane (Surr)	112		73 - 130					02/21/25 12:48	1
Toluene-d8 (Surr)	92		80 - 120					02/21/25 12:48	1

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(73-130)	(80-120)
310-300566-1	MW3	101	112	91
310-300566-2	Trip Blank	101	112	92
LCS 310-447322/6	Lab Control Sample	94	111	91
LCS 310-447322/7	Lab Control Sample	102	113	90
MB 310-447322/5	Method Blank	101	111	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

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

Lab Sample ID: MB 310-447322/5
Matrix: Water
Analysis Batch: 447322

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/21/25 11:17	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					02/21/25 11:17	1
Dibromofluoromethane (Surr)	111		73 - 130					02/21/25 11:17	1
Toluene-d8 (Surr)	90		80 - 120					02/21/25 11:17	1

Lab Sample ID: LCS 310-447322/6
Matrix: Water
Analysis Batch: 447322

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	41.04		ug/L		103	50 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		80 - 120				
Dibromofluoromethane (Surr)	111		73 - 130				
Toluene-d8 (Surr)	91		80 - 120				

Lab Sample ID: LCS 310-447322/7
Matrix: Water
Analysis Batch: 447322

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	113		73 - 130
Toluene-d8 (Surr)	90		80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-447321/3
Matrix: Water
Analysis Batch: 447321

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			02/20/25 12:07	1
Fluoride	<0.200		0.200		mg/L			02/20/25 12:07	1
Sulfate	<1.00		1.00		mg/L			02/20/25 12:07	1

Lab Sample ID: LCS 310-447321/4
Matrix: Water
Analysis Batch: 447321

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	9.530		mg/L		95	90 - 110
Fluoride	2.00	2.080		mg/L		104	90 - 110
Sulfate	10.0	9.531		mg/L		95	90 - 110

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-447180/1-A
Matrix: Water
Analysis Batch: 447362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447180

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		02/20/25 09:00	02/21/25 13:54	1
Barium	<0.00200		0.00200		mg/L		02/20/25 09:00	02/21/25 13:54	1
Cadmium	<0.000200		0.000200		mg/L		02/20/25 09:00	02/21/25 13:54	1
Zinc	<0.0200		0.0200		mg/L		02/20/25 09:00	02/21/25 13:54	1
Manganese	<0.0100		0.0100		mg/L		02/20/25 09:00	02/21/25 13:54	1

Lab Sample ID: LCS 310-447180/2-A
Matrix: Water
Analysis Batch: 447362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.2080		mg/L		104	80 - 120
Barium	0.100	0.1032		mg/L		103	80 - 120
Cadmium	0.100	0.09918		mg/L		99	80 - 120
Zinc	0.200	0.1954		mg/L		98	80 - 120
Manganese	0.100	0.1003		mg/L		100	80 - 120

Lab Sample ID: 310-300566-1 MS
Matrix: Water
Analysis Batch: 447362

Client Sample ID: MW3
Prep Type: Total/NA
Prep Batch: 447180

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.111		0.200	0.3512		mg/L		120	75 - 125
Barium	0.309		0.100	0.4223		mg/L		114	75 - 125
Cadmium	<0.000200		0.100	0.1024		mg/L		102	75 - 125
Zinc	<0.0200		0.200	0.2019		mg/L		101	75 - 125
Manganese	<0.0100		0.100	0.1055		mg/L		97	75 - 125

Lab Sample ID: 310-300566-1 MSD
Matrix: Water
Analysis Batch: 447362

Client Sample ID: MW3
Prep Type: Total/NA
Prep Batch: 447180

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.111		0.200	0.3483		mg/L		118	75 - 125	1	20
Barium	0.309		0.100	0.4154		mg/L		107	75 - 125	2	20
Cadmium	<0.000200		0.100	0.1027		mg/L		103	75 - 125	0	20
Zinc	<0.0200		0.200	0.2012		mg/L		101	75 - 125	0	20
Manganese	<0.0100		0.100	0.1071		mg/L		99	75 - 125	1	20

Lab Sample ID: MB 310-447147/1-B
Matrix: Water
Analysis Batch: 447407

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 447314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:05	1
Arsenic	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:05	1
Cobalt	<0.000500		0.000500		mg/L		02/21/25 08:45	02/24/25 15:05	1
Iron	<0.100		0.100		mg/L		02/21/25 08:45	02/24/25 15:05	1
Manganese	<0.0100		0.0100		mg/L		02/21/25 08:45	02/24/25 15:05	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

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

Lab Sample ID: MB 310-447147/1-B
Matrix: Water
Analysis Batch: 447407

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 447314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00200		0.00200		mg/L		02/21/25 08:45	02/24/25 15:05	1

Lab Sample ID: MB 310-447147/1-B
Matrix: Water
Analysis Batch: 447521

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 447314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/21/25 08:45	02/25/25 11:23	1
Arsenic	<0.00200		0.00200		mg/L		02/21/25 08:45	02/25/25 11:23	1
Boron	<0.100		0.100		mg/L		02/21/25 08:45	02/25/25 11:23	1
Cobalt	<0.000500		0.000500		mg/L		02/21/25 08:45	02/25/25 11:23	1
Iron	<0.100		0.100		mg/L		02/21/25 08:45	02/25/25 11:23	1
Manganese	<0.0100		0.0100		mg/L		02/21/25 08:45	02/25/25 11:23	1
Molybdenum	<0.00200		0.00200		mg/L		02/21/25 08:45	02/25/25 11:23	1

Lab Sample ID: LCS 310-447147/2-B
Matrix: Water
Analysis Batch: 447407

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 447314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2016		mg/L		101	80 - 120
Arsenic	0.200	0.1935		mg/L		97	80 - 120
Cobalt	0.100	0.09752		mg/L		98	80 - 120
Iron	0.200	0.1897		mg/L		95	80 - 120
Manganese	0.100	0.09554		mg/L		96	80 - 120
Molybdenum	0.200	0.1943		mg/L		97	80 - 120

Lab Sample ID: LCS 310-447147/2-B
Matrix: Water
Analysis Batch: 447521

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 447314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2083		mg/L		104	80 - 120
Arsenic	0.200	0.2018		mg/L		101	80 - 120
Boron	0.200	0.1731		mg/L		87	80 - 120
Cobalt	0.100	0.09962		mg/L		100	80 - 120
Iron	0.200	0.1967		mg/L		98	80 - 120
Manganese	0.100	0.09578		mg/L		96	80 - 120
Molybdenum	0.200	0.1905		mg/L		95	80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-447120/1-A
Matrix: Water
Analysis Batch: 447192

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447120

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L		02/19/25 08:29	02/19/25 19:30	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-447120/2-A
Matrix: Water
Analysis Batch: 447192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447120

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	3.771		mg/L		94	90 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-877090/1-A
Matrix: Water
Analysis Batch: 877103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 877090

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<40.0		40.0		ug/L		02/25/25 08:10	02/25/25 13:31	1

Lab Sample ID: LCS 680-877090/2-A
Matrix: Water
Analysis Batch: 877103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 877090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	400	372.0		ug/L		93	60 - 140

Lab Sample ID: 310-300566-1 MS
Matrix: Water
Analysis Batch: 877103

Client Sample ID: MW3
Prep Type: Total/NA
Prep Batch: 877090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	163		400	448.6		ug/L		72	60 - 140

Lab Sample ID: 310-300566-1 MSD
Matrix: Water
Analysis Batch: 877103

Client Sample ID: MW3
Prep Type: Total/NA
Prep Batch: 877090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Halogens, Total Organic	163		400	444.2		ug/L		70	60 - 140	1	40

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-447217/1-A
Matrix: Water
Analysis Batch: 447278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447217

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		02/20/25 08:49	02/20/25 15:30	1

Lab Sample ID: LCS 310-447217/2-A
Matrix: Water
Analysis Batch: 447278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447217

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09786		mg/L		98	90 - 110

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-447202/1
Matrix: Water
Analysis Batch: 447202

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			02/20/25 06:48	1

Lab Sample ID: LCS 310-447202/2
Matrix: Water
Analysis Batch: 447202

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	96.00		mg/L		96	81 - 116

Method: SM 5220D - COD

Lab Sample ID: MB 310-447304/5
Matrix: Water
Analysis Batch: 447304

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			02/21/25 08:17	1

Lab Sample ID: LCS 310-447304/3
Matrix: Water
Analysis Batch: 447304

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	128.0		mg/L		102	85 - 110

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

GC/MS VOA

Analysis Batch: 447322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	8260D	
310-300566-2	Trip Blank	Total/NA	Water	8260D	
MB 310-447322/5	Method Blank	Total/NA	Water	8260D	
LCS 310-447322/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-447322/7	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 447321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	9056A	
MB 310-447321/3	Method Blank	Total/NA	Water	9056A	
LCS 310-447321/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Filtration Batch: 447147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Dissolved	Water	Filtration	
MB 310-447147/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 447180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	3005A	
MB 310-447180/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-447180/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-300566-1 MS	MW3	Total/NA	Water	3005A	
310-300566-1 MSD	MW3	Total/NA	Water	3005A	

Prep Batch: 447314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Dissolved	Water	3005A	447147
MB 310-447147/1-B	Method Blank	Dissolved	Water	3005A	447147
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	3005A	447147

Analysis Batch: 447362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	6020B	447180
MB 310-447180/1-A	Method Blank	Total/NA	Water	6020B	447180
LCS 310-447180/2-A	Lab Control Sample	Total/NA	Water	6020B	447180
310-300566-1 MS	MW3	Total/NA	Water	6020B	447180
310-300566-1 MSD	MW3	Total/NA	Water	6020B	447180

Analysis Batch: 447407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Dissolved	Water	6020B	447314
MB 310-447147/1-B	Method Blank	Dissolved	Water	6020B	447314
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	6020B	447314

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Metals

Analysis Batch: 447521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-447147/1-B	Method Blank	Dissolved	Water	6020B	447314
LCS 310-447147/2-B	Lab Control Sample	Dissolved	Water	6020B	447314

General Chemistry

Prep Batch: 447120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	Distill/Ammonia	
MB 310-447120/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-447120/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 447192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	350.1	447120
MB 310-447120/1-A	Method Blank	Total/NA	Water	350.1	447120
LCS 310-447120/2-A	Lab Control Sample	Total/NA	Water	350.1	447120

Analysis Batch: 447202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	I-3765-85	
MB 310-447202/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-447202/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 447217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	Distill/Phenol	
MB 310-447217/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-447217/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 447278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	9066	447217
MB 310-447217/1-A	Method Blank	Total/NA	Water	9066	447217
LCS 310-447217/2-A	Lab Control Sample	Total/NA	Water	9066	447217

Analysis Batch: 447304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	SM 5220D	
MB 310-447304/5	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-447304/3	Lab Control Sample	Total/NA	Water	SM 5220D	

Prep Batch: 877090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	Carbon Trap	
MB 680-877090/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-877090/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
310-300566-1 MS	MW3	Total/NA	Water	Carbon Trap	
310-300566-1 MSD	MW3	Total/NA	Water	Carbon Trap	

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

General Chemistry

Analysis Batch: 877103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300566-1	MW3	Total/NA	Water	9020B	877090
MB 680-877090/1-A	Method Blank	Total/NA	Water	9020B	877090
LCS 680-877090/2-A	Lab Control Sample	Total/NA	Water	9020B	877090
310-300566-1 MS	MW3	Total/NA	Water	9020B	877090
310-300566-1 MSD	MW3	Total/NA	Water	9020B	877090

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Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300566-1

Client Sample ID: MW3

Lab Sample ID: 310-300566-1

Date Collected: 02/17/25 11:15

Matrix: Water

Date Received: 02/19/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447322	MZR8	EET CF	02/21/25 13:34
Total/NA	Analysis	9056A		5	447321	QTZ5	EET CF	02/20/25 14:56
Dissolved	Filtration	Filtration			447147	F5MW	EET CF	02/19/25 12:00
Dissolved	Prep	3005A			447314	QTZ5	EET CF	02/21/25 08:45
Dissolved	Analysis	6020B		1	447407	NFT2	EET CF	02/24/25 15:28
Total/NA	Prep	3005A			447180	F5MW	EET CF	02/20/25 09:00
Total/NA	Analysis	6020B		1	447362	NFT2	EET CF	02/21/25 14:00
Total/NA	Prep	Distill/Ammonia			447120	RLT9	EET CF	02/19/25 11:08
Total/NA	Analysis	350.1		1	447192	ZJX4	EET CF	02/19/25 20:47
Total/NA	Prep	Carbon Trap			877090	CLJ	EET SAV	02/25/25 08:10
Total/NA	Analysis	9020B		1	877103	CLJ	EET SAV	02/26/25 08:15
Total/NA	Prep	Distill/Phenol			447217	A3GU	EET CF	02/20/25 08:49
Total/NA	Analysis	9066		1	447278	ENB7	EET CF	02/20/25 15:34
Total/NA	Analysis	I-3765-85		1	447202	DGU1	EET CF	02/20/25 06:48
Total/NA	Analysis	SM 5220D		5	447304	ENB7	EET CF	02/21/25 08:17

Client Sample ID: Trip Blank

Lab Sample ID: 310-300566-2

Date Collected: 02/17/25 00:00

Matrix: Water

Date Received: 02/19/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447322	MZR8	EET CF	02/21/25 12:48

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: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-300566-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-25
ANAB	Dept. of Defense ELAP	L2463	09-22-26
Arkansas (DW)	State	GA00006	06-30-25
Florida	NELAP	E87052	06-30-25
Georgia	State	E87052	06-30-25
Georgia (DW)	State	803	06-30-25
Guam	State	24-05R	04-17-25
Hawaii	State	<cert No.>	06-30-25
Illinois	NELAP	200022	11-30-25
Iowa	State	353	07-01-25
Kentucky (UST)	State	108138	06-30-24 *
Louisiana (All)	NELAP	30690	06-30-25
Maine	State	GA00006	09-25-26
Michigan	State	9925	03-05-25
Mississippi	State	<cert No.>	06-30-25
Nebraska	State	NE-OS-7-04	06-30-25
New Mexico	State	GA00006	06-30-25
North Carolina (DW)	State	13701	07-31-25
North Carolina (WW/SW)	State	269	12-31-25
Puerto Rico	State	GA00006	01-15-26
South Carolina	State	98001	06-30-26
Tennessee	State	TN02961	06-30-25
Texas	TCEQ Water Supply	T104704185	06-30-25
USDA	US Federal Programs	P330-18-00313	04-04-27
Virginia	NELAP	460161	06-14-25
Wyoming	State	8TMS-L	06-30-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-300566-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

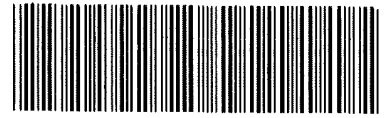
Protocol References:

- EPA = US Environmental Protection Agency
- EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992
- None = None
- 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.
- USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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





Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>EB solutions</u>			
City/State	<u>Cedar Rapids IA</u>	Project:	
Receipt Information			
Date/Time Received.	DATE <u>2/19/25</u>	TIME <u>1020</u>	Received By <u>XB</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
<u>all</u>			
Temperature Record			
Coolant	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>2</u>	Correction Factor (°C)	<u>0</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>2.5</u>	Corrected Temp (°C):	<u>2.5</u>
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> 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 Fax: 319-277-2425

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Bindert, Zach T		Carrier Tracking No(s): N/A		COC No: 310-80663.1	
Client Contact: Shipping/Receiving		Phone: N/A		E-Mail: Zach.Bindert@et.eurofinsus.com		State of Origin: Iowa		Page: Page 1 of 1	
Company: Eurofins Environment Testing Southeast L				Accreditations Required (See note): State Program - Iowa				Job #: 310-300566-1	
Address: 5102 LaRoche Avenue, Savannah, GA, 31404		Due Date Requested: 3/4/2025		Analysis Requested				Preservation Codes:	
City: Savannah		TAT Requested (days): N/A							
State, Zip: GA, 31404									
Phone: 912-354-7858(Tel) 912-352-0165(Fax)		PO #: N/A							
Email: N/A		WO #: N/A							
Project Name: Crawford Project		Project #: 31007226		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers	
Site: N/A		SSOW#: N/A							
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)	
						Preservation Code:		9020B/Carbon_Trap	
MW3 (310-300566-1)		2/17/25		11:15 Central		G		Water	
								1	
<p>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.</p>									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Primary Deliverable Rank: 2				
Empty Kit Relinquished by:					Special Instructions/QC Requirements:				
Relinquished by:			Date: 2/19/25		Time: 1455		Company:		Received by:
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time: 2/21/25 1100
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 5.6 / 5.6				

Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-300566-1

Login Number: 300566

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Bunker, Xavier M

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: EB Solutions, Inc

Job Number: 310-300566-1

Login Number: 300566

List Number: 2

Creator: Lincoln, Alyssa

List Source: Eurofins Savannah

List Creation: 02/21/25 02:15 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	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 3/13/2025 1:03:53 PM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-300928-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
3/13/2025 1:03:53 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016



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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-300928-1

Job ID: 310-300928-1

Eurofins Cedar Falls

Job Narrative 310-300928-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 sample was received on 2/26/2025 9:30 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 2.6°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW4 (310-300928-1). 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

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

General Chemistry

Method 9020B: Breakthrough exceeded 10% for the following sample: MW4 (310-300928-1).

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

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
310-300928-1	MW4	Water	02/24/25 11:00	02/26/25 09:30

1

2

3

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Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

Client Sample ID: MW4

Lab Sample ID: 310-300928-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	159		5.00		mg/L	5		9056A	Total/NA
Barium	0.125		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.0987		0.0100		mg/L	1		6020B	Total/NA
Cobalt	0.000563		0.000500		mg/L	1		6020B	Dissolved
Iron	0.235		0.100		mg/L	1		6020B	Dissolved
Manganese	0.100		0.0100		mg/L	1		6020B	Dissolved
Molybdenum	0.00218		0.00200		mg/L	1		6020B	Dissolved
Halogens, Total Organic	108		40.0		ug/L	1		9020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

Client Sample ID: MW4

Lab Sample ID: 310-300928-1

Date Collected: 02/24/25 11:00

Matrix: Water

Date Received: 02/26/25 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/27/25 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120					02/27/25 15:46	1
Dibromofluoromethane (Surr)	104		73 - 130					02/27/25 15:46	1
Toluene-d8 (Surr)	95		80 - 120					02/27/25 15:46	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			02/28/25 11:14	5
Fluoride	<1.00		1.00		mg/L			02/28/25 11:14	5
Sulfate	159		5.00		mg/L			02/28/25 11:14	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		03/12/25 10:00	03/12/25 18:14	1
Barium	0.125		0.00200		mg/L		03/12/25 10:00	03/12/25 18:14	1
Cadmium	<0.000200		0.000200		mg/L		03/03/25 09:00	03/06/25 13:44	1
Manganese	0.0987		0.0100		mg/L		03/03/25 09:00	03/06/25 13:44	1
Zinc	<0.0200		0.0200		mg/L		03/03/25 09:00	03/06/25 13:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		03/05/25 09:00	03/05/25 16:25	1
Arsenic	<0.00200		0.00200		mg/L		03/05/25 09:00	03/05/25 16:25	1
Boron	<0.100		0.100		mg/L		03/05/25 09:00	03/05/25 16:25	1
Cobalt	0.000563		0.000500		mg/L		03/05/25 09:00	03/05/25 16:25	1
Iron	0.235		0.100		mg/L		03/05/25 09:00	03/05/25 16:25	1
Manganese	0.100		0.0100		mg/L		03/05/25 09:00	03/05/25 16:25	1
Molybdenum	0.00218		0.00200		mg/L		03/05/25 09:00	03/05/25 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		02/28/25 11:12	02/28/25 21:23	1
Halogens, Total Organic (SW846 9020B)	108		40.0		ug/L		03/11/25 08:03	03/11/25 13:32	1
Phenols, Total (SW846 9066)	<0.0200	F2	0.0200		mg/L		03/04/25 08:57	03/04/25 17:50	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88		mg/L			02/27/25 06:37	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			03/06/25 09:40	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

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.

General Chemistry

Qualifier	Qualifier Description
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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(73-130)	(80-120)
310-300928-1	MW4	106	104	95
LCS 310-447660/6	Lab Control Sample	100	98	101
MB 310-447660/5	Method Blank	102	101	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

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

Lab Sample ID: MB 310-447660/5
Matrix: Water
Analysis Batch: 447660

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			02/27/25 11:43	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					02/27/25 11:43	1
Dibromofluoromethane (Surr)	101		73 - 130					02/27/25 11:43	1
Toluene-d8 (Surr)	94		80 - 120					02/27/25 11:43	1

Lab Sample ID: LCS 310-447660/6
Matrix: Water
Analysis Batch: 447660

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	33.38		ug/L		83	50 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	100		80 - 120				
Dibromofluoromethane (Surr)	98		73 - 130				
Toluene-d8 (Surr)	101		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-447977/3
Matrix: Water
Analysis Batch: 447977

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			02/28/25 10:35	1
Fluoride	<0.200		0.200		mg/L			02/28/25 10:35	1
Sulfate	<1.00		1.00		mg/L			02/28/25 10:35	1

Lab Sample ID: LCS 310-447977/34
Matrix: Water
Analysis Batch: 447977

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	10.04		mg/L		100	90 - 110
Fluoride	2.00	2.100		mg/L		105	90 - 110
Sulfate	10.0	10.19		mg/L		102	90 - 110

Lab Sample ID: 310-300928-1 MS
Matrix: Water
Analysis Batch: 447977

Client Sample ID: MW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.00		25.0	27.00		mg/L		91	80 - 120
Fluoride	<1.00		5.00	5.357		mg/L		107	80 - 120
Sulfate	159		25.0	179.5	4	mg/L		81	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

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

Lab Sample ID: 310-300928-1 MSD
Matrix: Water
Analysis Batch: 447977

Client Sample ID: MW4
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	<5.00		25.0	27.29		mg/L		92	80 - 120	1	15
Fluoride	<1.00		5.00	5.420		mg/L		108	80 - 120	1	15
Sulfate	159		25.0	179.7	4	mg/L		82	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-447744/1-A
Matrix: Water
Analysis Batch: 448288

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447744

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	<0.000200		0.000200		mg/L		03/03/25 09:00	03/06/25 12:36	1
Zinc	<0.0200		0.0200		mg/L		03/03/25 09:00	03/06/25 12:36	1
Manganese	<0.0100		0.0100		mg/L		03/03/25 09:00	03/06/25 12:36	1

Lab Sample ID: LCS 310-447744/2-A
Matrix: Water
Analysis Batch: 448288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447744

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Cadmium	0.100	0.1147		mg/L		115	80 - 120
Zinc	0.200	0.2324		mg/L		116	80 - 120
Manganese	0.100	0.1141		mg/L		114	80 - 120

Lab Sample ID: MB 310-448684/1-A
Matrix: Water
Analysis Batch: 448774

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448684

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	<0.0500		0.0500		mg/L		03/12/25 10:00	03/12/25 17:33	1
Barium	<0.00200		0.00200		mg/L		03/12/25 10:00	03/12/25 17:33	1
Cadmium	<0.000200		0.000200		mg/L		03/12/25 10:00	03/12/25 17:33	1
Zinc	<0.0200		0.0200		mg/L		03/12/25 10:00	03/12/25 17:33	1
Manganese	<0.0100		0.0100		mg/L		03/12/25 10:00	03/12/25 17:33	1

Lab Sample ID: LCS 310-448684/2-A
Matrix: Water
Analysis Batch: 448774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448684

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Aluminum	0.200	0.2211		mg/L		111	80 - 120
Barium	0.100	0.1107		mg/L		111	80 - 120
Cadmium	0.100	0.1052		mg/L		105	80 - 120
Zinc	0.200	0.2092		mg/L		105	80 - 120
Manganese	0.100	0.1055		mg/L		106	80 - 120

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

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

Lab Sample ID: MB 310-447898/1-B
Matrix: Water
Analysis Batch: 448197

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 448048

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		03/05/25 09:00	03/05/25 16:07	1
Arsenic	<0.00200		0.00200		mg/L		03/05/25 09:00	03/05/25 16:07	1
Boron	<0.100		0.100		mg/L		03/05/25 09:00	03/05/25 16:07	1
Cobalt	<0.000500		0.000500		mg/L		03/05/25 09:00	03/05/25 16:07	1
Iron	<0.100		0.100		mg/L		03/05/25 09:00	03/05/25 16:07	1
Manganese	<0.0100		0.0100		mg/L		03/05/25 09:00	03/05/25 16:07	1
Molybdenum	<0.00200		0.00200		mg/L		03/05/25 09:00	03/05/25 16:07	1

Lab Sample ID: LCS 310-447898/2-B
Matrix: Water
Analysis Batch: 448197

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 448048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Antimony	0.200	0.1961		mg/L		98	80 - 120	
Arsenic	0.200	0.1932		mg/L		97	80 - 120	
Boron	0.200	0.1664		mg/L		83	80 - 120	
Cobalt	0.100	0.09826		mg/L		98	80 - 120	
Iron	0.200	0.1992		mg/L		100	80 - 120	
Manganese	0.100	0.09656		mg/L		97	80 - 120	
Molybdenum	0.200	0.1954		mg/L		98	80 - 120	

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-447766/1-A
Matrix: Water
Analysis Batch: 447818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447766

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	<0.500		0.500		mg/L		02/28/25 11:12	02/28/25 20:39	1

Lab Sample ID: LCS 310-447766/2-A
Matrix: Water
Analysis Batch: 447818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447766

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Ammonia as N	4.00	4.075		mg/L		102	90 - 110	

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-878543/1-A
Matrix: Water
Analysis Batch: 878549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 878543

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Halogens, Total Organic	<40.0		40.0		ug/L		03/11/25 08:03	03/11/25 12:08	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

Method: 9020B - Organic Halides, Total (TOX) (Continued)

Lab Sample ID: LCS 680-878543/2-A
Matrix: Water
Analysis Batch: 878549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 878543

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	400	384.8		ug/L		96	60 - 140

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-447985/1-A
Matrix: Water
Analysis Batch: 448064

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 447985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		03/04/25 08:57	03/04/25 17:49	1

Lab Sample ID: LCS 310-447985/2-A
Matrix: Water
Analysis Batch: 448064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 447985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09200		mg/L		92	90 - 110

Lab Sample ID: 310-300928-1 MS
Matrix: Water
Analysis Batch: 448064

Client Sample ID: MW4
Prep Type: Total/NA
Prep Batch: 447985

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	<0.0200	F2	0.100	0.1150		mg/L		115	76 - 119

Lab Sample ID: 310-300928-1 MSD
Matrix: Water
Analysis Batch: 448064

Client Sample ID: MW4
Prep Type: Total/NA
Prep Batch: 447985

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	<0.0200	F2	0.100	0.09156	F2	mg/L		92	76 - 119	23	16

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-447632/1
Matrix: Water
Analysis Batch: 447632

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			02/27/25 06:37	1

Lab Sample ID: LCS 310-447632/2
Matrix: Water
Analysis Batch: 447632

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	93.00		mg/L		93	81 - 116

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-300928-1

Method: SM 5220D - COD

Lab Sample ID: MB 310-448211/5
Matrix: Water
Analysis Batch: 448211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			03/06/25 09:40	1

Lab Sample ID: LCS 310-448211/3
Matrix: Water
Analysis Batch: 448211

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	133.0		mg/L		106	85 - 110

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QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

GC/MS VOA

Analysis Batch: 447660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	8260D	
MB 310-447660/5	Method Blank	Total/NA	Water	8260D	
LCS 310-447660/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 447977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	9056A	
MB 310-447977/3	Method Blank	Total/NA	Water	9056A	
LCS 310-447977/34	Lab Control Sample	Total/NA	Water	9056A	
310-300928-1 MS	MW4	Total/NA	Water	9056A	
310-300928-1 MSD	MW4	Total/NA	Water	9056A	

Metals

Prep Batch: 447744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	3005A	
MB 310-447744/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-447744/2-A	Lab Control Sample	Total/NA	Water	3005A	

Filtration Batch: 447898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Dissolved	Water	Filtration	
MB 310-447898/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-447898/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 448048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Dissolved	Water	3005A	447898
MB 310-447898/1-B	Method Blank	Dissolved	Water	3005A	447898
LCS 310-447898/2-B	Lab Control Sample	Dissolved	Water	3005A	447898

Analysis Batch: 448197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Dissolved	Water	6020B	448048
MB 310-447898/1-B	Method Blank	Dissolved	Water	6020B	448048
LCS 310-447898/2-B	Lab Control Sample	Dissolved	Water	6020B	448048

Analysis Batch: 448288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	6020B	447744
MB 310-447744/1-A	Method Blank	Total/NA	Water	6020B	447744
LCS 310-447744/2-A	Lab Control Sample	Total/NA	Water	6020B	447744

Prep Batch: 448684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	3005A	
MB 310-448684/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-448684/2-A	Lab Control Sample	Total/NA	Water	3005A	

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

Metals

Analysis Batch: 448774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	6020B	448684
MB 310-448684/1-A	Method Blank	Total/NA	Water	6020B	448684
LCS 310-448684/2-A	Lab Control Sample	Total/NA	Water	6020B	448684

General Chemistry

Analysis Batch: 447632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	I-3765-85	
MB 310-447632/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-447632/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 447766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	Distill/Ammonia	
MB 310-447766/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-447766/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 447818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	350.1	447766
MB 310-447766/1-A	Method Blank	Total/NA	Water	350.1	447766
LCS 310-447766/2-A	Lab Control Sample	Total/NA	Water	350.1	447766

Prep Batch: 447985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	Distill/Phenol	
MB 310-447985/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-447985/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
310-300928-1 MS	MW4	Total/NA	Water	Distill/Phenol	
310-300928-1 MSD	MW4	Total/NA	Water	Distill/Phenol	

Analysis Batch: 448064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	9066	447985
MB 310-447985/1-A	Method Blank	Total/NA	Water	9066	447985
LCS 310-447985/2-A	Lab Control Sample	Total/NA	Water	9066	447985
310-300928-1 MS	MW4	Total/NA	Water	9066	447985
310-300928-1 MSD	MW4	Total/NA	Water	9066	447985

Analysis Batch: 448211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	SM 5220D	
MB 310-448211/5	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-448211/3	Lab Control Sample	Total/NA	Water	SM 5220D	

Prep Batch: 878543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	Carbon Trap	
MB 680-878543/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-878543/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

General Chemistry

Analysis Batch: 878549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300928-1	MW4	Total/NA	Water	9020B	878543
MB 680-878543/1-A	Method Blank	Total/NA	Water	9020B	878543
LCS 680-878543/2-A	Lab Control Sample	Total/NA	Water	9020B	878543

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Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

Client Sample ID: MW4

Lab Sample ID: 310-300928-1

Date Collected: 02/24/25 11:00

Matrix: Water

Date Received: 02/26/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	447660	FE5V	EET CF	02/27/25 15:46
Total/NA	Analysis	9056A		5	447977	QTZ5	EET CF	02/28/25 11:14
Dissolved	Filtration	Filtration			447898	F5MW	EET CF	03/03/25 12:30
Dissolved	Prep	3005A			448048	QTZ5	EET CF	03/05/25 09:00
Dissolved	Analysis	6020B		1	448197	NFT2	EET CF	03/05/25 16:25
Total/NA	Prep	3005A			448684	Y3EC	EET CF	03/12/25 10:00
Total/NA	Analysis	6020B		1	448774	NFT2	EET CF	03/12/25 18:14
Total/NA	Prep	3005A			447744	Y3EC	EET CF	03/03/25 09:00
Total/NA	Analysis	6020B		1	448288	NFT2	EET CF	03/06/25 13:44
Total/NA	Prep	Distill/Ammonia			447766	RLT9	EET CF	02/28/25 11:12
Total/NA	Analysis	350.1		1	447818	ENB7	EET CF	02/28/25 21:23
Total/NA	Prep	Carbon Trap			878543	CLJ	EET SAV	03/11/25 08:03
Total/NA	Analysis	9020B		1	878549	CLJ	EET SAV	03/11/25 13:32
Total/NA	Prep	Distill/Phenol			447985	HE7K	EET CF	03/04/25 08:57
Total/NA	Analysis	9066		1	448064	ZJX4	EET CF	03/04/25 17:50
Total/NA	Analysis	I-3765-85		1	447632	DGU1	EET CF	02/27/25 06:37
Total/NA	Analysis	SM 5220D		5	448211	ENB7	EET CF	03/06/25 09:40

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: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-300928-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-25
ANAB	Dept. of Defense ELAP	L2463	09-22-26
Arkansas (DW)	State	GA00006	06-30-25
Florida	NELAP	E87052	06-30-25
Georgia	State	E87052	06-30-25
Georgia (DW)	State	803	06-30-25
Guam	State	24-05R	04-17-25
Hawaii	State	<cert No.>	06-30-25
Illinois	NELAP	200022	11-30-25
Iowa	State	353	07-01-25
Kentucky (UST)	State	108138	06-30-24 *
Louisiana (All)	NELAP	30690	06-30-25
Maine	State	GA00006	09-25-26
Mississippi	State	<cert No.>	06-30-25
Nebraska	State	NE-OS-7-04	06-30-25
New Mexico	State	GA00006	06-30-25
North Carolina (DW)	State	13701	07-31-25
North Carolina (WW/SW)	State	269	12-31-25
Puerto Rico	State	GA00006	01-15-26
South Carolina	State	98001	06-30-26
Tennessee	State	TN02961	06-30-25
Texas	TCEQ Water Supply	T104704185	06-30-25
USDA	US Federal Programs	P330-18-00313	04-04-27
Virginia	NELAP	460161	06-14-25
Wyoming	State	8TMS-L	06-30-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-300928-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colorimetric Titration," EPA, February 1992

None = None

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.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

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



Environment Testing
America



310-300928 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>EB Solutions</u>			
City/State:	<u>Cedar Rapids IA</u>	Project:	
Receipt Information			
Date/Time Received:	<u>2/26/25</u>	Received By:	<u>KB</u>
Delivery Type:	<input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>2</u>	Correction Factor (°C):	<u>0</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>2.6</u>	Corrected Temp (°C):	<u>2.6</u>
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Chain of Custody Record

Client Information Company: EB Solutions Inc Address: 5060 4th St. SW City: Cedar Rapids State/Zip: IA, 52404 Phone: edberth@ebsolutionsinc-web.com Project Name: Crawford Project Site:		Sampler: <i>E. L. Borchert</i> Lab P/N: Bndert, Zach T E-Mail: zach.bndert@testamericainc.com	Carmer Tracking No(s): 310-36804-12214 1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 31007226 SSOW#:	Analysis Requested 82700 2,4-Dichlorobenzene, Pyridine, Pentachloro Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> S 82700 2,4-Dichlorobenzene, Pyridine, Pentachloro Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> S 9056A_ORGFM_28D Chloride, Fluoride Sulfate Ammonia 350 f, COD 5220D <input type="checkbox"/> N <input type="checkbox"/> S 8020A Dissolved Metals <input type="checkbox"/> N <input type="checkbox"/> D Total Metals 6020A 7470A <input type="checkbox"/> S 9066 Total Recoverable Phenolics <input type="checkbox"/> S 8260C Benzene and Methyl Ethyl Ketone <input type="checkbox"/> A I_3765_85 Residue Non filterable (TSS) <input type="checkbox"/> N 9020B Total Organic Halides (TOX) <input type="checkbox"/> S			Preservation Codes: A - HCL B - NaOH N - None C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anichlor H - H2SO4 I - Ice J - DI Water K - EDTA L - EDA Other:
Sample Identification Sample Date: <i>2-24-25 11:00</i> Sample Time: Sample Type (C=Comp, G=grab): <i>G</i> Matrix (Water, Swab, Solid, Other): <i>Water</i> Preservation Code: <i>G</i>	Total Number of Containers: 12 Special Instructions/Note:			
Trip Blank Possible Hazard Identification: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by:	Method of Shipment: Date/Time: 2-25-25 / 10:30 Date/Time: 2/26/25 9:30 Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No:	Cooler Temperature(s) °C and Other Remarks:			



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-300928-1

Login Number: 300928

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Bunker, Xavier M

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: EB Solutions, Inc

Job Number: 310-300928-1

Login Number: 300928

List Number: 2

Creator: Lincoln, Alyssa

List Source: Eurofins Savannah

List Creation: 02/27/25 12:22 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	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 3/20/2025 1:28:58 PM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-301352-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Authorized for release by
Zach Bindert, Senior Project Manager
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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-301352-1

Job ID: 310-301352-1

Eurofins Cedar Falls

Job Narrative 310-301352-1

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 and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided 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 sample was received on 3/5/2025 9:35 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 2.4°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW5 (310-301352-1). 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

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

General Chemistry

Method 9020B_Calc: The following samples for batch 280-688220 (Total Organic Halides) were diluted to 2x due to the nature of the sample matrix based on CI pre-screen test: MW5 (310-301352-1). 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.

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
310-301352-1	MW5	Water	03/03/25 10:00	03/05/25 09:35

1

2

3

4

5

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15

Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

Client Sample ID: MW5

Lab Sample ID: 310-301352-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	18.8		5.00		mg/L	5		9056A	Total/NA
Barium	0.0836		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.0726		0.0100		mg/L	1		6020B	Total/NA
Boron	0.171		0.100		mg/L	1		6020B	Dissolved
Manganese	0.0689		0.0100		mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

Client Sample ID: MW5

Lab Sample ID: 310-301352-1

Date Collected: 03/03/25 10:00

Matrix: Water

Date Received: 03/05/25 09:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			03/10/25 15:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					03/10/25 15:39	1
Dibromofluoromethane (Surr)	101		73 - 130					03/10/25 15:39	1
Toluene-d8 (Surr)	95		80 - 120					03/10/25 15:39	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			03/12/25 12:32	5
Fluoride	<1.00		1.00		mg/L			03/12/25 12:32	5
Sulfate	18.8		5.00		mg/L			03/12/25 12:32	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		03/07/25 08:00	03/11/25 16:27	1
Barium	0.0836		0.00200		mg/L		03/07/25 08:00	03/11/25 16:27	1
Cadmium	<0.000200		0.000200		mg/L		03/07/25 08:00	03/11/25 16:27	1
Manganese	0.0726		0.0100		mg/L		03/07/25 08:00	03/11/25 16:27	1
Zinc	<0.0200		0.0200		mg/L		03/07/25 08:00	03/11/25 16:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		03/11/25 09:00	03/11/25 14:37	1
Arsenic	<0.00200		0.00200		mg/L		03/11/25 09:00	03/11/25 14:37	1
Boron	0.171		0.100		mg/L		03/11/25 09:00	03/11/25 14:37	1
Cobalt	<0.000500		0.000500		mg/L		03/11/25 09:00	03/11/25 14:37	1
Iron	<0.100		0.100		mg/L		03/11/25 09:00	03/11/25 14:37	1
Manganese	0.0689		0.0100		mg/L		03/11/25 09:00	03/11/25 14:37	1
Molybdenum	<0.00200		0.00200		mg/L		03/11/25 09:00	03/11/25 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		03/07/25 09:04	03/07/25 16:02	1
Total Organic Halogens - Dup (SW846 9020B)	<60.0		60.0		ug/L			03/19/25 00:36	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		03/13/25 08:17	03/13/25 17:25	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88		mg/L			03/06/25 10:12	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			03/10/25 13:12	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(73-130)	(80-120)
310-301352-1	MW5	100	101	95
LCS 310-448486/6	Lab Control Sample	98	104	97
MB 310-448486/5	Method Blank	100	103	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

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

Lab Sample ID: MB 310-448486/5
Matrix: Water
Analysis Batch: 448486

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			03/10/25 12:14	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					03/10/25 12:14	1
Dibromofluoromethane (Surr)	103		73 - 130					03/10/25 12:14	1
Toluene-d8 (Surr)	95		80 - 120					03/10/25 12:14	1

Lab Sample ID: LCS 310-448486/6
Matrix: Water
Analysis Batch: 448486

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	41.28		ug/L		103	50 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	98		80 - 120				
Dibromofluoromethane (Surr)	104		73 - 130				
Toluene-d8 (Surr)	97		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-448967/3
Matrix: Water
Analysis Batch: 448967

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			03/12/25 12:01	1
Fluoride	<0.200		0.200		mg/L			03/12/25 12:01	1
Sulfate	<1.00		1.00		mg/L			03/12/25 12:01	1

Lab Sample ID: LCS 310-448967/4
Matrix: Water
Analysis Batch: 448967

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	9.693		mg/L		97	90 - 110
Fluoride	2.00	1.868		mg/L		93	90 - 110
Sulfate	10.0	9.788		mg/L		98	90 - 110

Lab Sample ID: 310-301352-1 MS
Matrix: Water
Analysis Batch: 448967

Client Sample ID: MW5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.00		25.0	22.34		mg/L		89	80 - 120
Fluoride	<1.00		5.00	4.986		mg/L		91	80 - 120
Sulfate	18.8		25.0	47.80		mg/L		116	80 - 120

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

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

Lab Sample ID: 310-301352-1 MSD
Matrix: Water
Analysis Batch: 448967

Client Sample ID: MW5
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	<5.00		25.0	23.56		mg/L		94	80 - 120	5	15
Fluoride	<1.00		5.00	5.372		mg/L		99	80 - 120	7	15
Sulfate	18.8		25.0	44.83		mg/L		104	80 - 120	6	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-448269/1-A
Matrix: Water
Analysis Batch: 448663

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448269

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	<0.0500		0.0500		mg/L		03/07/25 08:00	03/11/25 15:15	1
Barium	<0.00200		0.00200		mg/L		03/07/25 08:00	03/11/25 15:15	1
Cadmium	<0.000200		0.000200		mg/L		03/07/25 08:00	03/11/25 15:15	1
Zinc	<0.0200		0.0200		mg/L		03/07/25 08:00	03/11/25 15:15	1
Manganese	<0.0100		0.0100		mg/L		03/07/25 08:00	03/11/25 15:15	1

Lab Sample ID: LCS 310-448269/2-A
Matrix: Water
Analysis Batch: 448663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448269

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Aluminum	0.200	0.2026		mg/L		101	80 - 120
Barium	0.100	0.1004		mg/L		100	80 - 120
Cadmium	0.100	0.09554		mg/L		96	80 - 120
Zinc	0.200	0.1907		mg/L		95	80 - 120
Manganese	0.100	0.09364		mg/L		94	80 - 120

Lab Sample ID: MB 310-448328/1-B
Matrix: Water
Analysis Batch: 448622

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 448525

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		03/11/25 09:00	03/11/25 14:32	1
Arsenic	<0.00200		0.00200		mg/L		03/11/25 09:00	03/11/25 14:32	1
Boron	<0.100		0.100		mg/L		03/11/25 09:00	03/11/25 14:32	1
Cobalt	<0.000500		0.000500		mg/L		03/11/25 09:00	03/11/25 14:32	1
Iron	<0.100		0.100		mg/L		03/11/25 09:00	03/11/25 14:32	1
Manganese	<0.0100		0.0100		mg/L		03/11/25 09:00	03/11/25 14:32	1
Molybdenum	<0.00200		0.00200		mg/L		03/11/25 09:00	03/11/25 14:32	1

Lab Sample ID: LCS 310-448328/2-B
Matrix: Water
Analysis Batch: 448622

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 448525

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Antimony	0.200	0.2164		mg/L		108	80 - 120
Arsenic	0.200	0.1974		mg/L		99	80 - 120
Boron	0.200	0.1890		mg/L		94	80 - 120
Cobalt	0.100	0.09672		mg/L		97	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

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

Lab Sample ID: LCS 310-448328/2-B
Matrix: Water
Analysis Batch: 448622

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 448525

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Iron	0.200	0.2016		mg/L		101	80 - 120	
Manganese	0.100	0.09392		mg/L		94	80 - 120	
Molybdenum	0.200	0.1947		mg/L		97	80 - 120	

Lab Sample ID: 310-301352-1 MS
Matrix: Water
Analysis Batch: 448622

Client Sample ID: MW5
Prep Type: Dissolved
Prep Batch: 448525

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	
Antimony	<0.00200		0.200	0.2315		mg/L		116	75 - 125	
Arsenic	<0.00200		0.200	0.2064		mg/L		103	75 - 125	
Boron	0.171		0.200	0.3684		mg/L		99	75 - 125	
Cobalt	<0.000500		0.100	0.09729		mg/L		97	75 - 125	
Iron	<0.100		0.200	0.2156		mg/L		108	75 - 125	
Manganese	0.0689		0.100	0.1675		mg/L		99	75 - 125	
Molybdenum	<0.00200		0.200	0.2094		mg/L		104	75 - 125	

Lab Sample ID: 310-301352-1 MSD
Matrix: Water
Analysis Batch: 448622

Client Sample ID: MW5
Prep Type: Dissolved
Prep Batch: 448525

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	
									Limits		RPD	Limit
Antimony	<0.00200		0.200	0.2334		mg/L		117	75 - 125		1	20
Arsenic	<0.00200		0.200	0.2053		mg/L		103	75 - 125		1	20
Boron	0.171		0.200	0.3718		mg/L		100	75 - 125		1	20
Cobalt	<0.000500		0.100	0.09649		mg/L		96	75 - 125		1	20
Iron	<0.100		0.200	0.2176		mg/L		109	75 - 125		1	20
Manganese	0.0689		0.100	0.1699		mg/L		101	75 - 125		1	20
Molybdenum	<0.00200		0.200	0.2107		mg/L		105	75 - 125		1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-448333/1-A
Matrix: Water
Analysis Batch: 448389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448333

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	<0.500		0.500		mg/L		03/07/25 09:04	03/07/25 15:43	1

Lab Sample ID: LCS 310-448333/2-A
Matrix: Water
Analysis Batch: 448389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448333

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Ammonia as N	4.00	3.907		mg/L		98	90 - 110	

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 280-688220/2
Matrix: Water
Analysis Batch: 688220

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Halogens - Dup	<30.0		30.0		ug/L			03/19/25 00:36	1

Lab Sample ID: LCS 280-688220/4
Matrix: Water
Analysis Batch: 688220

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Halogens - Dup	100	97.78		ug/L		98	78 - 114

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-448767/1-A
Matrix: Water
Analysis Batch: 448880

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 448767

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		03/13/25 08:17	03/13/25 17:23	1

Lab Sample ID: LCS 310-448767/2-A
Matrix: Water
Analysis Batch: 448880

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 448767

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09627		mg/L		96	90 - 110

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-448218/1
Matrix: Water
Analysis Batch: 448218

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			03/06/25 10:12	1

Lab Sample ID: LCS 310-448218/2
Matrix: Water
Analysis Batch: 448218

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	103.0		mg/L		103	81 - 116

Method: SM 5220D - COD

Lab Sample ID: MB 310-448502/5
Matrix: Water
Analysis Batch: 448502

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			03/10/25 13:12	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-301352-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 310-448502/3

Matrix: Water

Analysis Batch: 448502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	132.3		mg/L		105	85 - 110

Lab Sample ID: 310-301352-1 MS

Matrix: Water

Analysis Batch: 448502

Client Sample ID: MW5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	<25.0		250	314.9		mg/L		126	83 - 145

Lab Sample ID: 310-301352-1 MSD

Matrix: Water

Analysis Batch: 448502

Client Sample ID: MW5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	<25.0		250	273.8		mg/L		110	83 - 145	14	16

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

GC/MS VOA

Analysis Batch: 448486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	8260D	
MB 310-448486/5	Method Blank	Total/NA	Water	8260D	
LCS 310-448486/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 448967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	9056A	
MB 310-448967/3	Method Blank	Total/NA	Water	9056A	
LCS 310-448967/4	Lab Control Sample	Total/NA	Water	9056A	
310-301352-1 MS	MW5	Total/NA	Water	9056A	
310-301352-1 MSD	MW5	Total/NA	Water	9056A	

Metals

Prep Batch: 448269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	3005A	
MB 310-448269/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-448269/2-A	Lab Control Sample	Total/NA	Water	3005A	

Filtration Batch: 448328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Dissolved	Water	Filtration	
MB 310-448328/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-448328/2-B	Lab Control Sample	Dissolved	Water	Filtration	
310-301352-1 MS	MW5	Dissolved	Water	Filtration	
310-301352-1 MSD	MW5	Dissolved	Water	Filtration	

Prep Batch: 448525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Dissolved	Water	3005A	448328
MB 310-448328/1-B	Method Blank	Dissolved	Water	3005A	448328
LCS 310-448328/2-B	Lab Control Sample	Dissolved	Water	3005A	448328
310-301352-1 MS	MW5	Dissolved	Water	3005A	448328
310-301352-1 MSD	MW5	Dissolved	Water	3005A	448328

Analysis Batch: 448622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Dissolved	Water	6020B	448525
MB 310-448328/1-B	Method Blank	Dissolved	Water	6020B	448525
LCS 310-448328/2-B	Lab Control Sample	Dissolved	Water	6020B	448525
310-301352-1 MS	MW5	Dissolved	Water	6020B	448525
310-301352-1 MSD	MW5	Dissolved	Water	6020B	448525

Analysis Batch: 448663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	6020B	448269
MB 310-448269/1-A	Method Blank	Total/NA	Water	6020B	448269
LCS 310-448269/2-A	Lab Control Sample	Total/NA	Water	6020B	448269

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

General Chemistry

Analysis Batch: 448218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	I-3765-85	
MB 310-448218/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-448218/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 448333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	Distill/Ammonia	
MB 310-448333/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-448333/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 448389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	350.1	448333
MB 310-448333/1-A	Method Blank	Total/NA	Water	350.1	448333
LCS 310-448333/2-A	Lab Control Sample	Total/NA	Water	350.1	448333

Analysis Batch: 448502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	SM 5220D	
MB 310-448502/5	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-448502/3	Lab Control Sample	Total/NA	Water	SM 5220D	
310-301352-1 MS	MW5	Total/NA	Water	SM 5220D	
310-301352-1 MSD	MW5	Total/NA	Water	SM 5220D	

Prep Batch: 448767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	Distill/Phenol	
MB 310-448767/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-448767/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 448880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	9066	448767
MB 310-448767/1-A	Method Blank	Total/NA	Water	9066	448767
LCS 310-448767/2-A	Lab Control Sample	Total/NA	Water	9066	448767

Analysis Batch: 688220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-301352-1	MW5	Total/NA	Water	9020B	
MB 280-688220/2	Method Blank	Total/NA	Water	9020B	
LCS 280-688220/4	Lab Control Sample	Total/NA	Water	9020B	

Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

Client Sample ID: MW5

Lab Sample ID: 310-301352-1

Date Collected: 03/03/25 10:00

Matrix: Water

Date Received: 03/05/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	448486	FE5V	EET CF	03/10/25 15:39
Total/NA	Analysis	9056A		5	448967	WZC8	EET CF	03/12/25 12:32
Dissolved	Filtration	Filtration			448328	F5MW	EET CF	03/07/25 10:20
Dissolved	Prep	3005A			448525	QTZ5	EET CF	03/11/25 09:00
Dissolved	Analysis	6020B		1	448622	NFT2	EET CF	03/11/25 14:37
Total/NA	Prep	3005A			448269	Y3EC	EET CF	03/07/25 08:00
Total/NA	Analysis	6020B		1	448663	NFT2	EET CF	03/11/25 16:27
Total/NA	Prep	Distill/Ammonia			448333	RLT9	EET CF	03/07/25 09:04
Total/NA	Analysis	350.1		1	448389	ENB7	EET CF	03/07/25 16:02
Total/NA	Analysis	9020B		1	688220	CAI	EET DEN	03/19/25 00:36
Total/NA	Prep	Distill/Phenol			448767	WZC8	EET CF	03/13/25 08:17
Total/NA	Analysis	9066		1	448880	ZJX4	EET CF	03/13/25 17:25
Total/NA	Analysis	I-3765-85		1	448218	DGU1	EET CF	03/06/25 10:12
Total/NA	Analysis	SM 5220D		5	448502	ENB7	EET CF	03/10/25 13:12

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Accreditation/Certification Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-301352-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	19-047-0	04-21-25
California	State	2513	01-08-26
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-25
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667	06-30-25
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-25
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-25
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-25
Minnesota	NELAP	1788752	12-31-25
Nevada	State	CO00026	07-31-25
New Hampshire	NELAP	2053	04-28-25
New Jersey	NELAP	230001	06-30-25
New York	NELAP	59923	04-01-25
North Dakota	State	R-034	01-08-25 *
Oklahoma	NELAP	8614	08-31-25
Oregon	NELAP	4025	01-08-26
Pennsylvania	NELAP	013	07-31-25
South Carolina	State	72002001	01-18-25 *
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25
Virginia	NELAP	460232	06-14-25
Washington	State	C583	08-03-25
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-25
Wyoming (UST)	A2LA	2907.01	10-31-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-301352-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET DEN
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

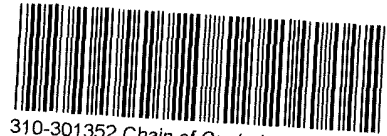
Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Environment Testing
America



310-301352 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>EBSOLUTIONS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE	TIME	Received By:
	<u>3.9.25</u>	<u>9.35</u>	<u>KL</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:
Multiple Coolers?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # ____ of ____
Cooler Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>Z</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>2.4</u>		Corrected Temp (°C): <u>2.4</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
a) If yes: Is there evidence that the chilling process began?		<input type="checkbox"/> Yes	<input type="checkbox"/> 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?)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

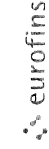
Chain of Custody Record

Client Information Company: EB Solutions, Inc. Address: 5060 4th St. SW City: Cedar Rapids State Zip: IA, 52404 Phone: Email: edberitch@ebsolutionsinc-web.com Project Name: Crawford Project Site:		Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 31007226 SSOWN#:		Sampler: <i>Ed Beritch</i> Lab PM: Bindert, Zach T Phone: zach.bindert@testamericainc.com E-Mail:		Carrier Tracking No(s): COC No: 310-36804-12214.1 Page: Page 1 of 1 Job #:			
Sample Identification Sample ID: <i>MW5</i> Sample Date: <i>3-3-2010</i> Sample Time: <i>10:00</i> Matrix: Water Preservation Code:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> 8270D - 2,4-Dinitrofluorene, Pyridine, Pentachloro Ammonia - 350.1, COD - 5220D 9056A - ORGM_28D - Chloride, Fluoride, Sulfate 6020A - Dissolved Metals Total Metals 6020A, 7470A 9066 - Total Recoverable Phenolics 8260C - Benzene and Methyl Ethyl Ketone 1,3765_85 - Residue, Non-filterable (TSS) 9020B - Total Organic Halides (TOX)		Analysis Requested Total Number of Containers:		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 Other 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 Z - other (specify)		Special Instructions/Note: Total Number of Containers: 12 12 12 12 12 12 12 12 12 12 3	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)									
Empty Kit Relinquished by Relinquished by: <i>[Signature]</i> Date: <i>3-4-25</i> / <i>9:00</i> Relinquished by: Company: <i>EB Solutions</i> Relinquished by: Company:									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:									
Method of Shipment: Date/Time: _____ Date/Time: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks:									

Eurofins Cedar Falls

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

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact:		Bindert, Zach T	N/A	310-81035.1
Shipping/Receiving		E-Mail:	State of Origin:	Page:
Company:		Zach.Bindert@et.eurofins.com	Iowa	Page 1 of 1
TestAmerica Laboratories, Inc.		Accreditations Required (See note):		
Address:		State Program - Iowa		
4955 Yarrow Street,		Preservation Codes:		
City:		310-301352-1		
Arvada				
State, Zip:				
CO, 80002				
Phone:				
303-736-0100(Tel) 303-431-7171(Fax)				
Email:				
N/A				
Project Name:				
Crawford Project				
Site:				
N/A				
Due Date Requested:		Analysis Requested		
3/18/2025				
TAT Requested (days):				
N/A				
PO #:				
N/A				
WO #:				
N/A				
Project #:				
31007226				
SSOW#:				
N/A				
Sample Identification - Client ID (Lab ID)				
MW5 (310-301352-1)				
Sample Date		Sample Time		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, AS=Air)
3/3/25	10:00 Central	G	Water	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Special Instructions/Note:
X	X	902B_Calc/TOX in duplicate		
Preservation Code:		Total Number of Containers		
G		1		
Other:				
N/A				

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/test/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
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
 Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____
 Relinquished by: _____ Date: 3/5/25/1410 Company: _____ Received by: _____ Date/Time: 3/6/25 0950 Company: EEETOEN
 Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____
 Custody Seals Intact: Yes No No
 Custody Seal No.: _____
 Copier Temperature(s) °C and Other Remarks: 1.5 cto.3 JAWAGA

Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-301352-1

Login Number: 301352

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Bunker, Xavier M

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



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-301352-1

Login Number: 301352

List Number: 2

Creator: Padgett, Dylan T

List Source: Eurofins Denver

List Creation: 03/06/25 12:53 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 8/1/2025 5:33:43 PM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-310811-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Authorized for release by
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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-310811-1

Job ID: 310-310811-1

Eurofins Cedar Falls

Job Narrative 310-310811-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 7/11/2025 11:50 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 2.2°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW1 (310-310811-1). 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

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

General Chemistry

Method 9020B_Calc: The following samples for batch 280-706741 (Total Organic Halides) were diluted to 2x due to the nature of the sample matrix based on CI pre-screen test: MW1 (310-310811-1). 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.

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
310-310811-1	MW1	Water	07/10/25 10:53	07/11/25 11:50

1

2

3

4

5

6

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14

15

Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

Client Sample ID: MW1

Lab Sample ID: 310-310811-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.02		5.00		mg/L	5		9056A	Total/NA
Sulfate	943		50.0		mg/L	50		9056A	Total/NA
Barium	0.0179		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.0688		0.0100		mg/L	1		6020B	Total/NA
Boron	0.144		0.100		mg/L	1		6020B	Dissolved
Manganese	0.0934		0.0100		mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

Client Sample ID: MW1

Lab Sample ID: 310-310811-1

Date Collected: 07/10/25 10:53

Matrix: Water

Date Received: 07/11/25 11:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/25 09:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					07/18/25 09:03	1
Dibromofluoromethane (Surr)	104		76 - 130					07/18/25 09:03	1
Toluene-d8 (Surr)	99		80 - 120					07/18/25 09:03	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.02		5.00		mg/L			07/17/25 14:26	5
Fluoride	<1.00		1.00		mg/L			07/17/25 14:26	5
Sulfate	943		50.0		mg/L			07/18/25 13:26	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		07/21/25 09:10	07/23/25 17:48	1
Barium	0.0179		0.00200		mg/L		07/21/25 09:10	07/23/25 17:48	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/23/25 17:48	1
Manganese	0.0688		0.0100		mg/L		07/21/25 09:10	07/23/25 17:48	1
Zinc	<0.0200		0.0200		mg/L		07/21/25 09:10	07/23/25 17:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 17:07	1
Arsenic	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 17:07	1
Boron	0.144		0.100		mg/L		08/01/25 09:00	08/01/25 17:07	1
Cobalt	<0.000500		0.000500		mg/L		08/01/25 09:00	08/01/25 17:07	1
Iron	<0.100		0.100		mg/L		08/01/25 09:00	08/01/25 17:07	1
Manganese	0.0934		0.0100		mg/L		08/01/25 09:00	08/01/25 17:07	1
Molybdenum	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		07/22/25 08:09	07/22/25 19:55	1
Total Organic Halogens - Dup (SW846 9020B)	<60.0		60.0		ug/L			07/29/25 13:43	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		07/15/25 07:37	07/15/25 20:30	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88		mg/L			07/11/25 15:59	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			07/14/25 13:13	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(76-130)	(80-120)
310-310811-1	MW1	102	104	99
LCS 310-460869/6	Lab Control Sample	104	101	98
MB 310-460869/5	Method Blank	102	104	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

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

Lab Sample ID: MB 310-460869/5

Matrix: Water

Analysis Batch: 460869

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			07/18/25 03:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					07/18/25 03:22	1
Dibromofluoromethane (Surr)	104		76 - 130					07/18/25 03:22	1
Toluene-d8 (Surr)	99		80 - 120					07/18/25 03:22	1

Lab Sample ID: LCS 310-460869/6

Matrix: Water

Analysis Batch: 460869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	42.33		ug/L		106	60 - 134
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	104		80 - 120				
Dibromofluoromethane (Surr)	101		76 - 130				
Toluene-d8 (Surr)	98		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-461004/34

Matrix: Water

Analysis Batch: 461004

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			07/18/25 13:12	1
Fluoride	<0.200		0.200		mg/L			07/18/25 13:12	1
Sulfate	<1.00		1.00		mg/L			07/18/25 13:12	1

Lab Sample ID: LCS 310-461004/3

Matrix: Water

Analysis Batch: 461004

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	10.05		mg/L		101	90 - 110
Fluoride	2.00	2.113		mg/L		106	90 - 110
Sulfate	10.0	10.14		mg/L		101	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-461030/1-A

Matrix: Water

Analysis Batch: 461490

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 461030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		07/21/25 09:10	07/23/25 17:33	1
Barium	<0.00200		0.00200		mg/L		07/21/25 09:10	07/23/25 17:33	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/23/25 17:33	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

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

Lab Sample ID: MB 310-461030/1-A
Matrix: Water
Analysis Batch: 461490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 461030

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Zinc	<0.0200		0.0200		mg/L		07/21/25 09:10	07/23/25 17:33	1
Manganese	<0.0100		0.0100		mg/L		07/21/25 09:10	07/23/25 17:33	1

Lab Sample ID: LCS 310-461030/2-A
Matrix: Water
Analysis Batch: 461490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 461030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Aluminum	0.200	0.1948		mg/L		97	80 - 120	
Barium	0.100	0.09392		mg/L		94	80 - 120	
Cadmium	0.100	0.09214		mg/L		92	80 - 120	
Zinc	0.200	0.1791		mg/L		90	80 - 120	
Manganese	0.100	0.09306		mg/L		93	80 - 120	

Lab Sample ID: MB 310-462144/1-B
Matrix: Water
Analysis Batch: 462425

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 462387

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 16:47	1
Arsenic	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 16:47	1
Boron	<0.100		0.100		mg/L		08/01/25 09:00	08/01/25 16:47	1
Cobalt	<0.000500		0.000500		mg/L		08/01/25 09:00	08/01/25 16:47	1
Iron	<0.100		0.100		mg/L		08/01/25 09:00	08/01/25 16:47	1
Manganese	<0.0100		0.0100		mg/L		08/01/25 09:00	08/01/25 16:47	1
Molybdenum	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 16:47	1

Lab Sample ID: LCS 310-462144/2-B
Matrix: Water
Analysis Batch: 462425

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 462387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Antimony	0.200	0.1985		mg/L		99	80 - 120	
Arsenic	0.200	0.1884		mg/L		94	80 - 120	
Boron	0.200	0.1824		mg/L		91	80 - 120	
Cobalt	0.100	0.09642		mg/L		96	80 - 120	
Iron	0.200	0.2018		mg/L		101	80 - 120	
Manganese	0.100	0.09551		mg/L		96	80 - 120	
Molybdenum	0.200	0.1843		mg/L		92	80 - 120	

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-461214/1-A
Matrix: Water
Analysis Batch: 461326

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 461214

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	<0.500		0.500		mg/L		07/22/25 08:09	07/22/25 17:54	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-461214/2-A
Matrix: Water
Analysis Batch: 461326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 461214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	4.018		mg/L		100	90 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 280-706741/2
Matrix: Water
Analysis Batch: 706741

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Halogens - Dup	<30.0		30.0		ug/L			07/29/25 13:43	1

Lab Sample ID: LCS 280-706741/4
Matrix: Water
Analysis Batch: 706741

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Halogens - Dup	100	95.10		ug/L		95	78 - 114

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-460456/1-A
Matrix: Water
Analysis Batch: 460590

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 460456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		07/15/25 07:37	07/15/25 20:27	1

Lab Sample ID: LCS 310-460456/2-A
Matrix: Water
Analysis Batch: 460590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 460456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09799		mg/L		98	90 - 110

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-460283/1
Matrix: Water
Analysis Batch: 460283

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			07/11/25 15:59	1

Lab Sample ID: LCS 310-460283/2
Matrix: Water
Analysis Batch: 460283

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	105.0		mg/L		105	82 - 117

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-310811-1

Method: SM 5220D - COD

Lab Sample ID: MB 310-460404/32
Matrix: Water
Analysis Batch: 460404

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			07/14/25 13:13	1

Lab Sample ID: LCS 310-460404/33
Matrix: Water
Analysis Batch: 460404

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	123.9		mg/L		99	85 - 115

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

GC/MS VOA

Analysis Batch: 460869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	8260D	
MB 310-460869/5	Method Blank	Total/NA	Water	8260D	
LCS 310-460869/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 461004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	9056A	
310-310811-1	MW1	Total/NA	Water	9056A	
MB 310-461004/34	Method Blank	Total/NA	Water	9056A	
LCS 310-461004/3	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 461030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	3005A	
MB 310-461030/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-461030/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 461490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	6020B	461030
MB 310-461030/1-A	Method Blank	Total/NA	Water	6020B	461030
LCS 310-461030/2-A	Lab Control Sample	Total/NA	Water	6020B	461030

Filtration Batch: 462144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Dissolved	Water	Filtration	
MB 310-462144/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-462144/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 462387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Dissolved	Water	3005A	462144
MB 310-462144/1-B	Method Blank	Dissolved	Water	3005A	462144
LCS 310-462144/2-B	Lab Control Sample	Dissolved	Water	3005A	462144

Analysis Batch: 462425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Dissolved	Water	6020B	462387
MB 310-462144/1-B	Method Blank	Dissolved	Water	6020B	462387
LCS 310-462144/2-B	Lab Control Sample	Dissolved	Water	6020B	462387

General Chemistry

Analysis Batch: 460283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	I-3765-85	
MB 310-460283/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-460283/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-310811-1

General Chemistry

Analysis Batch: 460404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	SM 5220D	
MB 310-460404/32	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-460404/33	Lab Control Sample	Total/NA	Water	SM 5220D	

Prep Batch: 460456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	Distill/Phenol	
MB 310-460456/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-460456/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 460590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	9066	460456
MB 310-460456/1-A	Method Blank	Total/NA	Water	9066	460456
LCS 310-460456/2-A	Lab Control Sample	Total/NA	Water	9066	460456

Prep Batch: 461214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	Distill/Ammonia	
MB 310-461214/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-461214/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 461326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	350.1	461214
MB 310-461214/1-A	Method Blank	Total/NA	Water	350.1	461214
LCS 310-461214/2-A	Lab Control Sample	Total/NA	Water	350.1	461214

Analysis Batch: 706741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-310811-1	MW1	Total/NA	Water	9020B	
MB 280-706741/2	Method Blank	Total/NA	Water	9020B	
LCS 280-706741/4	Lab Control Sample	Total/NA	Water	9020B	

Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

Client Sample ID: MW1

Lab Sample ID: 310-310811-1

Date Collected: 07/10/25 10:53

Matrix: Water

Date Received: 07/11/25 11:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	460869	FE5V	EET CF	07/18/25 09:03
Total/NA	Analysis	9056A		5	461004	QTZ5	EET CF	07/17/25 14:26
Total/NA	Analysis	9056A		50	461004	QTZ5	EET CF	07/18/25 13:26
Dissolved	Filtration	Filtration			462144	WK2X	EET CF	07/30/25 14:40
Dissolved	Prep	3005A			462387	WK2X	EET CF	08/01/25 09:00
Dissolved	Analysis	6020B		1	462425	NFT2	EET CF	08/01/25 17:07
Total/NA	Prep	3005A			461030	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461490	NFT2	EET CF	07/23/25 17:48
Total/NA	Prep	Distill/Ammonia			461214	E6KR	EET CF	07/22/25 08:09
Total/NA	Analysis	350.1		1	461326	ZJX4	EET CF	07/22/25 19:55
Total/NA	Analysis	9020B		1	706741	CAI	EET DEN	07/29/25 13:43
Total/NA	Prep	Distill/Phenol			460456	E6KR	EET CF	07/15/25 07:37
Total/NA	Analysis	9066		1	460590	ZJX4	EET CF	07/15/25 20:30
Total/NA	Analysis	I-3765-85		1	460283	E6KR	EET CF	07/11/25 15:59
Total/NA	Analysis	SM 5220D		5	460404	ENB7	EET CF	07/14/25 13:13

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-310811-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	88-00687	04-02-26
California	State	2513	01-08-26
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-26
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667	06-30-26
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-26
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-26
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-26
Minnesota	NELAP	1788752	12-31-25
Montana (DW)	State	CERT0117	01-01-26
Nevada	State	CO00026	07-31-25
New Hampshire	NELAP	2053	04-28-26
New Jersey	NELAP	CO004	06-30-26
New York	NELAP	11964	04-01-26
North Dakota	State	R-034	01-08-25 *
Oklahoma	NELAP	8614	08-31-25
Oregon	NELAP	4025	01-08-26
Pennsylvania	NELAP	68-00664	07-31-25
South Carolina	State	72002001	07-30-25
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25
Virginia	NELAP	460232	06-14-26
Washington	State	C583	08-03-25
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-25
Wyoming (UST)	A2LA	2907.01	06-09-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-310811-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET DEN
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Environment Testing
America



310-310811 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>EB Solutions</u>			
City/State:	CITY	STATE	Project
Receipt Information			
Date/Time Received.	DATE	TIME	Received By: <u>EH</u>
	<u>7-11-25</u>	<u>1150</u>	
Delivery Type. <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee			
<input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other. _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes</i> Cooler ID.			
Multiple Coolers? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes</i> Cooler # _____ of _____			
Cooler Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes</i> Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes</i> Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes</i> . Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other _____ <input type="checkbox"/> NONE			
Thermometer ID <u>AA</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C) <u>2.2</u>		Corrected Temp (°C) <u>2.2</u>	
• Sample Container Temperature			
Container(s) used	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C)			
Corrected Temp (°C)			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) <i>If yes</i> Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



TestAmerica Cedar Falls

704 Enterprise Drive
 Cedar Falls IA 50613
 Phone (319) 277 2401 Fax (319) 277-2425

Chain of Custody Record

Company: EB Solutions Inc Address: 5060 4th St. SW City: Cedar Rapids State, Zip: IA, 52404 Phone: 319-249-3253 Email: edbertch@ebsolutionsinc-web.com Project Name: Crawford Project Site:		Sampler: <i>Ed Bertch</i> Lab PM: Bindert Zach T E-Mail: zach.bindert@testamericainc.com Phone:		COC No: 310-36804-12214 1 Page: Page 1 of 1 Job #:	
Due Date Requested TAT Requested (days): PO #: WO #: Project #: 31007226 SSOW#:		Analysis Requested 6020A - Dissolved Metals 6020A - Total Recoverable Phenolics 8260C - Benzene and Methyl Ethyl Ketone 1.3765.85 - Residue, Non-filtrable (TSS) 9020B - Total Organic Halides (TOX)			
Sample Identification MWI Sample Date: 7/10/25 Sample Time: 10:53 Sample Type (C=Comp, G=grab): G Matrix (Water, Solid, Oil, etc.): Water Preservation Code: 6		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes 8270D - 2,4-Dinitrofluorene, Pyridine, Pentachloro Ammonia - 3501, COD - 5220D 9056A - ORGM_28D - Chloride, Fluoride, Sulfate 6020A - Dissolved Metals Total Metals 6020A, 7470A 9066 - Total Recoverable Phenolics 8260C - Benzene and Methyl Ethyl Ketone 1.3765.85 - Residue, Non-filtrable (TSS) 9020B - Total Organic Halides (TOX)			
Trip Blank Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)		Total Number of containers: 12 Special Instructions/Note:			
Empty Kit Relinquished by Relinquished by: <i>[Signature]</i> Relinquished by: <i>[Signature]</i> Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:			
Custody Seals Intact: Δ Yes Δ No		Method of Shipment:			
Date/Time: 7/10/25 2:10 Date/Time: 7/11/25 13:50 Date/Time:		Date/Time: 7/11/25 13:50 Date/Time:			
Company: EB Solutions Company:		Company:			
Date/Time:		Date/Time:			
Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:			

Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-310811-1

Login Number: 310811

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Cappi, Sage

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: EB Solutions, Inc

Job Number: 310-310811-1

Login Number: 310811

List Number: 2

Creator: Rystrom, Joshua R

List Source: Eurofins Denver

List Creation: 07/12/25 01:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 7/31/2025 9:43:25 AM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-311358-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
7/31/2025 9:43:25 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016



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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-311358-1

Job ID: 310-311358-1

Eurofins Cedar Falls

Job Narrative 310-311358-1

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

* The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.

For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 7/18/2025 12:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW2 (310-311358-1). 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

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

General Chemistry

Method 9020B_Calc: The following samples for batch 280-706741 (Total Organic Halides) were diluted to 2x due to the nature of the sample matrix based on Cl pre-screen test: MW2 (310-311358-1). 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.

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-311358-1	MW2	Water	07/17/25 13:56	07/18/25 12:05
310-311358-2	Trip Blank	Water	07/17/25 00:00	07/18/25 12:05

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Client Sample ID: MW2

Lab Sample ID: 310-311358-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.07		5.00		mg/L	5		9056A	Total/NA
Sulfate	12.3		5.00		mg/L	5		9056A	Total/NA
Barium	0.128		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.0568		0.0100		mg/L	1		6020B	Total/NA
Manganese	0.0482		0.0100		mg/L	1		6020B	Dissolved
Chemical Oxygen Demand	25.9		25.0		mg/L	5		SM 5220D	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-311358-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls



Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Client Sample ID: MW2

Lab Sample ID: 310-311358-1

Date Collected: 07/17/25 13:56

Matrix: Water

Date Received: 07/18/25 12:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			07/22/25 04:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120					07/22/25 04:04	1
Dibromofluoromethane (Surr)	101		76 - 130					07/22/25 04:04	1
Toluene-d8 (Surr)	97		80 - 120					07/22/25 04:04	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.07		5.00		mg/L			07/22/25 13:40	5
Fluoride	<1.00		1.00		mg/L			07/22/25 13:40	5
Sulfate	12.3		5.00		mg/L			07/22/25 13:40	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		07/22/25 08:40	07/22/25 18:23	1
Barium	0.128		0.00200		mg/L		07/22/25 08:40	07/22/25 18:23	1
Cadmium	<0.000200		0.000200		mg/L		07/22/25 08:40	07/22/25 18:23	1
Manganese	0.0568		0.0100		mg/L		07/22/25 08:40	07/22/25 18:23	1
Zinc	<0.0200		0.0200		mg/L		07/22/25 08:40	07/22/25 18:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/28/25 09:00	07/30/25 16:10	1
Arsenic	<0.00200		0.00200		mg/L		07/28/25 09:00	07/30/25 16:10	1
Boron	<0.100		0.100		mg/L		07/28/25 09:00	07/30/25 16:10	1
Cobalt	<0.000500		0.000500		mg/L		07/28/25 09:00	07/30/25 16:10	1
Iron	<0.100		0.100		mg/L		07/28/25 09:00	07/30/25 16:10	1
Manganese	0.0482		0.0100		mg/L		07/28/25 09:00	07/30/25 16:10	1
Molybdenum	<0.00200		0.00200		mg/L		07/28/25 09:00	07/30/25 16:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		07/25/25 11:08	07/25/25 17:39	1
Total Organic Halogens - Dup (SW846 9020B)	<60.0		60.0		ug/L			07/29/25 13:43	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		07/24/25 08:20	07/24/25 16:17	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88		mg/L			07/22/25 14:57	1
Chemical Oxygen Demand (SM 5220D)	25.9		25.0		mg/L			07/25/25 09:55	5

Client Sample Results

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-311358-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-311358-2

Date Collected: 07/17/25 00:00

Matrix: Water

Date Received: 07/18/25 12:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			07/22/25 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					07/22/25 00:18	1
Dibromofluoromethane (Surr)	112		76 - 130					07/22/25 00:18	1
Toluene-d8 (Surr)	95		80 - 120					07/22/25 00:18	1



Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(76-130)	(80-120)
310-311358-1	MW2	104	101	97
310-311358-2	Trip Blank	102	112	95
LCS 310-461114/6	Lab Control Sample	99	102	101
MB 310-461114/5	Method Blank	100	111	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

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

Lab Sample ID: MB 310-461114/5
Matrix: Water
Analysis Batch: 461114

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			07/21/25 22:03	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					07/21/25 22:03	1
Dibromofluoromethane (Surr)	111		76 - 130					07/21/25 22:03	1
Toluene-d8 (Surr)	96		80 - 120					07/21/25 22:03	1

Lab Sample ID: LCS 310-461114/6
Matrix: Water
Analysis Batch: 461114

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	39.09		ug/L		98	60 - 134
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	99		80 - 120				
Dibromofluoromethane (Surr)	102		76 - 130				
Toluene-d8 (Surr)	101		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-461365/12
Matrix: Water
Analysis Batch: 461365

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			07/22/25 14:40	1
Fluoride	<0.200		0.200		mg/L			07/22/25 14:40	1
Sulfate	<1.00		1.00		mg/L			07/22/25 14:40	1

Lab Sample ID: LCS 310-461365/3
Matrix: Water
Analysis Batch: 461365

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	9.582		mg/L		96	90 - 110
Fluoride	2.00	2.008		mg/L		100	90 - 110
Sulfate	10.0	9.664		mg/L		97	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-461153/1-A
Matrix: Water
Analysis Batch: 461357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 461153

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		07/22/25 08:40	07/22/25 17:52	1
Barium	<0.00200		0.00200		mg/L		07/22/25 08:40	07/22/25 17:52	1
Cadmium	<0.000200		0.000200		mg/L		07/22/25 08:40	07/22/25 17:52	1

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

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

Lab Sample ID: MB 310-461153/1-A
Matrix: Water
Analysis Batch: 461357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 461153

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Zinc	<0.0200		0.0200		mg/L		07/22/25 08:40	07/22/25 17:52	1
Manganese	<0.0100		0.0100		mg/L		07/22/25 08:40	07/22/25 17:52	1

Lab Sample ID: LCS 310-461153/2-A
Matrix: Water
Analysis Batch: 461357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 461153

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Aluminum	0.200	0.1984		mg/L		99	80 - 120
Barium	0.100	0.09858		mg/L		99	80 - 120
Cadmium	0.100	0.1009		mg/L		101	80 - 120
Zinc	0.200	0.1914		mg/L		96	80 - 120
Manganese	0.100	0.09605		mg/L		96	80 - 120

Lab Sample ID: MB 310-461731/1-B
Matrix: Water
Analysis Batch: 462193

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 461846

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		07/28/25 09:00	07/30/25 15:42	1
Arsenic	<0.00200		0.00200		mg/L		07/28/25 09:00	07/30/25 15:42	1
Boron	<0.100		0.100		mg/L		07/28/25 09:00	07/30/25 15:42	1
Cobalt	<0.000500		0.000500		mg/L		07/28/25 09:00	07/30/25 15:42	1
Iron	<0.100		0.100		mg/L		07/28/25 09:00	07/30/25 15:42	1
Manganese	<0.0100		0.0100		mg/L		07/28/25 09:00	07/30/25 15:42	1
Molybdenum	<0.00200		0.00200		mg/L		07/28/25 09:00	07/30/25 15:42	1

Lab Sample ID: LCS 310-461731/2-B
Matrix: Water
Analysis Batch: 462193

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 461846

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Antimony	0.200	0.2035		mg/L		102	80 - 120
Arsenic	0.200	0.1897		mg/L		95	80 - 120
Boron	0.200	0.2169		mg/L		108	80 - 120
Cobalt	0.100	0.1032		mg/L		103	80 - 120
Iron	0.200	0.1893		mg/L		95	80 - 120
Manganese	0.100	0.09723		mg/L		97	80 - 120
Molybdenum	0.200	0.2188		mg/L		109	80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-461704/1-A
Matrix: Water
Analysis Batch: 461774

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 461704

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	<0.500		0.500		mg/L		07/25/25 11:08	07/25/25 17:18	1

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-461704/2-A
Matrix: Water
Analysis Batch: 461774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 461704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	3.819		mg/L		95	90 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 280-706741/2
Matrix: Water
Analysis Batch: 706741

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Halogens - Dup	<30.0		30.0		ug/L			07/29/25 13:43	1

Lab Sample ID: LCS 280-706741/4
Matrix: Water
Analysis Batch: 706741

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Halogens - Dup	100	95.10		ug/L		95	78 - 114

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-461493/1-A
Matrix: Water
Analysis Batch: 461620

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 461493

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		07/24/25 08:20	07/24/25 16:15	1

Lab Sample ID: LCS 310-461493/2-A
Matrix: Water
Analysis Batch: 461620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 461493

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09705		mg/L		97	90 - 110

Lab Sample ID: 310-311358-1 MS
Matrix: Water
Analysis Batch: 461620

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 461493

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	<0.0200		0.100	0.09453		mg/L		95	68 - 126

Lab Sample ID: 310-311358-1 MSD
Matrix: Water
Analysis Batch: 461620

Client Sample ID: MW2
Prep Type: Total/NA
Prep Batch: 461493

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	<0.0200		0.100	0.09487		mg/L		95	68 - 126	0	22

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-461310/1
Matrix: Water
Analysis Batch: 461310

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			07/22/25 14:57	1

Lab Sample ID: LCS 310-461310/2
Matrix: Water
Analysis Batch: 461310

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	98.00		mg/L		98	82 - 117

Method: SM 5220D - COD

Lab Sample ID: MB 310-461681/5
Matrix: Water
Analysis Batch: 461681

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			07/25/25 09:55	1

Lab Sample ID: LCS 310-461681/3
Matrix: Water
Analysis Batch: 461681

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	123.6		mg/L		99	85 - 115

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

GC/MS VOA

Analysis Batch: 461114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	8260D	
310-311358-2	Trip Blank	Total/NA	Water	8260D	
MB 310-461114/5	Method Blank	Total/NA	Water	8260D	
LCS 310-461114/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 461365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	9056A	
MB 310-461365/12	Method Blank	Total/NA	Water	9056A	
LCS 310-461365/3	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 461153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	3005A	
MB 310-461153/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-461153/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 461357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	6020B	461153
MB 310-461153/1-A	Method Blank	Total/NA	Water	6020B	461153
LCS 310-461153/2-A	Lab Control Sample	Total/NA	Water	6020B	461153

Filtration Batch: 461731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Dissolved	Water	Filtration	
MB 310-461731/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-461731/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 461846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Dissolved	Water	3005A	461731
MB 310-461731/1-B	Method Blank	Dissolved	Water	3005A	461731
LCS 310-461731/2-B	Lab Control Sample	Dissolved	Water	3005A	461731

Analysis Batch: 462193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Dissolved	Water	6020B	461846
MB 310-461731/1-B	Method Blank	Dissolved	Water	6020B	461846
LCS 310-461731/2-B	Lab Control Sample	Dissolved	Water	6020B	461846

General Chemistry

Analysis Batch: 461310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	I-3765-85	
MB 310-461310/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-461310/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

General Chemistry

Prep Batch: 461493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	Distill/Phenol	
MB 310-461493/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-461493/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
310-311358-1 MS	MW2	Total/NA	Water	Distill/Phenol	
310-311358-1 MSD	MW2	Total/NA	Water	Distill/Phenol	

Analysis Batch: 461620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	9066	461493
MB 310-461493/1-A	Method Blank	Total/NA	Water	9066	461493
LCS 310-461493/2-A	Lab Control Sample	Total/NA	Water	9066	461493
310-311358-1 MS	MW2	Total/NA	Water	9066	461493
310-311358-1 MSD	MW2	Total/NA	Water	9066	461493

Analysis Batch: 461681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	SM 5220D	
MB 310-461681/5	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-461681/3	Lab Control Sample	Total/NA	Water	SM 5220D	

Prep Batch: 461704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	Distill/Ammonia	
MB 310-461704/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-461704/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 461774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	350.1	461704
MB 310-461704/1-A	Method Blank	Total/NA	Water	350.1	461704
LCS 310-461704/2-A	Lab Control Sample	Total/NA	Water	350.1	461704

Analysis Batch: 706741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311358-1	MW2	Total/NA	Water	9020B	
MB 280-706741/2	Method Blank	Total/NA	Water	9020B	
LCS 280-706741/4	Lab Control Sample	Total/NA	Water	9020B	

Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Client Sample ID: MW2

Lab Sample ID: 310-311358-1

Date Collected: 07/17/25 13:56

Matrix: Water

Date Received: 07/18/25 12:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	461114	WSE8	EET CF	07/22/25 04:04
Total/NA	Analysis	9056A		5	461365	QTZ5	EET CF	07/22/25 13:40
Dissolved	Filtration	Filtration			461731	WK2X	EET CF	07/25/25 14:07
Dissolved	Prep	3005A			461846	WK2X	EET CF	07/28/25 09:00
Dissolved	Analysis	6020B		1	462193	NFT2	EET CF	07/30/25 16:10
Total/NA	Prep	3005A			461153	WK2X	EET CF	07/22/25 08:40
Total/NA	Analysis	6020B		1	461357	NFT2	EET CF	07/22/25 18:23
Total/NA	Prep	Distill/Ammonia			461704	E6KR	EET CF	07/25/25 11:08
Total/NA	Analysis	350.1		1	461774	ZJX4	EET CF	07/25/25 17:39
Total/NA	Analysis	9020B		1	706741	CAI	EET DEN	07/29/25 13:43
Total/NA	Prep	Distill/Phenol			461493	E6KR	EET CF	07/24/25 08:20
Total/NA	Analysis	9066		1	461620	ZJX4	EET CF	07/24/25 16:17
Total/NA	Analysis	I-3765-85		1	461310	E6KR	EET CF	07/22/25 14:57
Total/NA	Analysis	SM 5220D		5	461681	ENB7	EET CF	07/25/25 09:55

Client Sample ID: Trip Blank

Lab Sample ID: 310-311358-2

Date Collected: 07/17/25 00:00

Matrix: Water

Date Received: 07/18/25 12:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	461114	WSE8	EET CF	07/22/25 00:18

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	88-00687	04-02-26
California	State	2513	01-08-26
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-26
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667	06-30-26
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-26
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-26
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-26
Minnesota	NELAP	1788752	12-31-25
Montana (DW)	State	CERT0117	01-01-26
Nevada	State	CO00026	07-31-25
New Hampshire	NELAP	2053	04-28-26
New Jersey	NELAP	CO004	06-30-26
New York	NELAP	11964	04-01-26
North Dakota	State	R-034	01-08-25 *
Oklahoma	NELAP	8614	08-31-25
Oregon	NELAP	4025	01-08-26
Pennsylvania	NELAP	68-00664	07-31-25
South Carolina	State	72002001	01-18-25 *
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25
Virginia	NELAP	460232	06-14-26
Washington	State	C583	08-03-25
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-25
Wyoming (UST)	A2LA	2907.01	06-09-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311358-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET DEN
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Environment Testing
America



310-311358 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client. <u>EB Solutions</u>			
City/State:	CITY	STATE	Project.
		<u>IA</u>	
Receipt Information			
Date/Time Received.	DATE	TIME	Received By:
	<u>7-18-25</u>	<u>1205</u>	<u>EM</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee			
<input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes. Which VOA samples are in cooler? ↓	
<u>All</u>			
Temperature Record			
Coolant	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other _____ <input type="checkbox"/> NONE		
Thermometer ID:	<u>AA</u>	Correction Factor (°C)	<u>0</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>2.0</u>	Corrected Temp (°C):	<u>2.0</u>
• Sample Container Temperature			
Container(s) used.	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login.			
Additional Comments			



TestAmerica Cedar Falls

704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277 2425

Chain of Custody Record

<p>Client Information</p> <p>Company: EB Solutions, Inc</p> <p>Address: 5060 4th St SW</p> <p>City: Cedar Rapids</p> <p>State, Zip: IA, 52404</p> <p>Phone: [blank]</p> <p>Email: edbertch@ebsolutionsinc-web.com</p> <p>Project Name: Crawford Project</p> <p>Site: [blank]</p>		<p>Sampler: <i>El Borch</i></p> <p>Phone: [blank]</p> <p>Company: EB Solutions, Inc</p> <p>Address: 5060 4th St SW</p> <p>City: Cedar Rapids</p> <p>State, Zip: IA, 52404</p> <p>Phone: [blank]</p> <p>Email: edbertch@ebsolutionsinc-web.com</p> <p>Project Name: Crawford Project</p> <p>Site: [blank]</p>		<p>at PIA</p> <p>Bindert Zach T</p> <p>- Mail</p> <p>zach.bindert@testamericainc.com</p>		<p>COC No: 310-36804-12214 1</p> <p>Page: Page 1 of 1</p> <p>Job #: [blank]</p>	
<p>Due Date Requested: [blank]</p> <p>TAT Requested (days): [blank]</p> <p>PO #: [blank]</p> <p>W/O #: [blank]</p> <p>Project #: 31007226</p> <p>SSOW#: [blank]</p>		<p>Analysis Requested</p> <p>Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes</p> <p>Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes</p> <p>8270D - 2,4-Dinitrotoluene Pyridine Pentachlor <input checked="" type="checkbox"/> Yes</p> <p>Ammonia 350 (, COD 5220D <input checked="" type="checkbox"/> Yes</p> <p>9056A, ORGFM, 28D Chloride Fluoride Sulfate <input checked="" type="checkbox"/> Yes</p> <p>6020A Dissolved Metals <input checked="" type="checkbox"/> Yes</p> <p>Total Metals 6020A 7470A <input checked="" type="checkbox"/> Yes</p> <p>9066 Total Recoverable Phenolics <input checked="" type="checkbox"/> Yes</p> <p>8260C Benzene and Methyl Ethyl Ketone <input checked="" type="checkbox"/> Yes</p> <p>1,3765_85 Residue, Non-filterable (TSS) <input checked="" type="checkbox"/> Yes</p> <p>9020B - Total Organic Halides (TOX) <input checked="" type="checkbox"/> Yes</p>		<p>Preservation Codes:</p> <p>A HCL</p> <p>M Hexane</p> <p>N None</p> <p>O AsNaO2</p> <p>P Na2OAS</p> <p>D Nitric Acid</p> <p>E NaHSO4</p> <p>F MeOH</p> <p>G Amchlor</p> <p>H Ascorbic Acid</p> <p>I Ice</p> <p>J DI Water</p> <p>K EDTA</p> <p>L EDA</p> <p>Z other (specify)</p> <p>Other: [blank]</p>		<p>Total Number of containers: 12</p>	
<p>Sample Identification</p> <p><i>MW2</i></p>		<p>Sample Date: <i>7/17/25</i></p> <p>Sample Time: <i>1:56</i></p> <p>Sample Type (C=Comp, G=grab): <i>G</i></p> <p>Matrix (W=water, S=solid, O=waste, oil, BT=Trace, A=Air): <i>Water</i></p>		<p>Special Instructions/Note:</p>		<p>Special Instructions/OC Requirements</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>	
<p>Trip Blank</p>		<p>Sample Date: <i>7/17/25</i></p> <p>Sample Time: [blank]</p> <p>Sample Type: [blank]</p> <p>Matrix: <i>Water</i></p>		<p>Special Instructions/OC Requirements</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>		<p>Special Instructions/OC Requirements</p>	
<p>Possible Hazard Identification</p> <p><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested I II III IV Other (specify)</p>		<p>Date: [blank]</p>		<p>Method of Shipment: [blank]</p>		<p>Company: [blank]</p>	
<p>Relinquished by: <i>[Signature]</i></p> <p>Date/Time: <i>7/17/25 5:10</i></p>		<p>Relinquished by: <i>[Signature]</i></p> <p>Date/Time: <i>7/17/25 5:10</i></p>		<p>Relinquished by: <i>[Signature]</i></p> <p>Date/Time: <i>7/17/25 5:10</i></p>		<p>Relinquished by: <i>[Signature]</i></p> <p>Date/Time: <i>7/17/25 5:10</i></p>	
<p>Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		<p>Custody Seal No</p>		<p>Cooler Temperature(s) °C and Other Remarks:</p>		<p>Company: [blank]</p>	



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: N/A	Lab PM: Bindert, Zach T	Carrier Tracking No(s): N/A	COC No: 310-85090.1
Client Contact: N/A		Phone: N/A	E-Mail: Zach.Bindert@et-eurofins.com	State of Origin: Iowa	Page: 1 of 1
Shipping/Receiving		Company: TestAmerica Laboratories, Inc.			
Address: 4955 Yarrow Street,		Accreditations Required (See note): State Program - Iowa			
City: Anvada		Preservation Codes:			
State, Zip: CO, 80002		Job #: 310-311358-1			
Phone: 303-736-0100(Tel) 303-431-7171(Fax)		Other: N/A			
Email: N/A		Special Instructions/Note:			
Project Name: Crawford Project		Total Number of Containers: 1			
Site: N/A		902B CalcTOX in duplicate			
Due Date Requested: 7/31/2025		Perform M/MSD (Yes or No) <input checked="" type="checkbox"/>			
TAT Requested (days): N/A		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>			
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		902B CalcTOX in duplicate			
PO #: N/A	Sample Type (C=Comp, G=grab)	Sample Time	Sample Date	Preservation Code:	902B CalcTOX in duplicate
WO #: N/A	G	13:56 Central	7/17/25	G Water	X
Project #: 31007226					
SSOW#: N/A					

Sample Identification - Client ID (Lab ID)
 MW2 (310-311358-1)

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) _____

Empty Kit Relinquished by: _____

Relinquished by: _____ Date: 7/19/25/1335

Relinquished by: _____ Date/Time: 7/19/25 9:40

Relinquished by: _____ Date/Time: _____

Custody Seals Intact: Yes No

Custody Seal No.: 26 JR Pub CF 03

Special Instructions/QC Requirements: _____

Method of Shipment: _____

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Company: _____

Company: _____

Company: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-311358-1

Login Number: 311358

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Cappi, Sage

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: EB Solutions, Inc

Job Number: 310-311358-1

Login Number: 311358

List Number: 2

Creator: Swegle, Jarod M

List Source: Eurofins Denver

List Creation: 07/19/25 12:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 8/11/2025 5:13:58 PM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-311927-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
8/11/2025 5:13:58 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016



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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-311927-1

Job ID: 310-311927-1

Eurofins Cedar Falls

Job Narrative 310-311927-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 7/25/2025 1:46 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW4 (310-311927-1). 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

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

General Chemistry

Method 9020B_Calc: The following samples for batch 280-707723 (Total Organic Halides) were diluted to 2x due to the nature of the sample matrix based on CI pre-screen test: MW4 (310-311927-1). 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.

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-311927-1	MW4	Water	07/24/25 11:43	07/25/25 13:46	Iowa

1

2

3

4

5

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15

Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Client Sample ID: MW4

Lab Sample ID: 310-311927-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	168		5.00		mg/L	5		9056A	Total/NA
Barium	0.118		0.00200		mg/L	1		6020B	Total/NA
Manganese	0.0804		0.0100		mg/L	1		6020B	Total/NA
Manganese	0.0996		0.0100		mg/L	1		6020B	Dissolved
Molybdenum	0.00330		0.00200		mg/L	1		6020B	Dissolved
Total Suspended Solids	2.38		1.88		mg/L	1		I-3765-85	Total/NA
Chemical Oxygen Demand	47.3		25.0		mg/L	5		SM 5220D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Client Sample ID: MW4
Date Collected: 07/24/25 11:43
Date Received: 07/25/25 13:46

Lab Sample ID: 310-311927-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			08/02/25 00:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120					08/02/25 00:46	1
Dibromofluoromethane (Surr)	103		76 - 130					08/02/25 00:46	1
Toluene-d8 (Surr)	93		80 - 120					08/02/25 00:46	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			07/30/25 13:35	5
Fluoride	<1.00		1.00		mg/L			07/30/25 13:35	5
Sulfate	168		5.00		mg/L			07/30/25 13:35	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		07/30/25 09:00	07/31/25 13:24	1
Barium	0.118		0.00200		mg/L		07/30/25 09:00	07/31/25 13:24	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 13:24	1
Manganese	0.0804		0.0100		mg/L		07/30/25 09:00	07/31/25 13:24	1
Zinc	<0.0200		0.0200		mg/L		07/30/25 09:00	07/31/25 13:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 17:02	1
Arsenic	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 17:02	1
Boron	<0.100		0.100		mg/L		08/01/25 09:00	08/01/25 17:02	1
Cobalt	<0.000500		0.000500		mg/L		08/01/25 09:00	08/01/25 17:02	1
Iron	<0.100		0.100		mg/L		08/01/25 09:00	08/01/25 17:02	1
Manganese	0.0996		0.0100		mg/L		08/01/25 09:00	08/01/25 17:02	1
Molybdenum	0.00330		0.00200		mg/L		08/01/25 09:00	08/01/25 17:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L		07/30/25 08:08	07/30/25 17:20	1
Total Organic Halogens - Dup (SW846 9020B)	<60.0		60.0		ug/L			08/05/25 12:46	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		07/31/25 07:47	07/31/25 17:23	1
Total Suspended Solids (USGS I-3765-85)	2.38		1.88		mg/L			07/30/25 15:14	1
Chemical Oxygen Demand (SM 5220D)	47.3		25.0		mg/L			07/31/25 10:16	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(76-130)	(80-120)
310-311927-1	MW4	104	103	93
LCS 310-462335/6	Lab Control Sample	95	100	103
MB 310-462335/5	Method Blank	103	108	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

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

Lab Sample ID: MB 310-462335/5
Matrix: Water
Analysis Batch: 462335

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			08/01/25 21:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120					08/01/25 21:48	1
Dibromofluoromethane (Surr)	108		76 - 130					08/01/25 21:48	1
Toluene-d8 (Surr)	96		80 - 120					08/01/25 21:48	1

Lab Sample ID: LCS 310-462335/6
Matrix: Water
Analysis Batch: 462335

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	32.73		ug/L		82	60 - 134
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	95		80 - 120				
Dibromofluoromethane (Surr)	100		76 - 130				
Toluene-d8 (Surr)	103		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-462295/3
Matrix: Water
Analysis Batch: 462295

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			07/30/25 10:09	1
Fluoride	<0.200		0.200		mg/L			07/30/25 10:09	1
Sulfate	<1.00		1.00		mg/L			07/30/25 10:09	1

Lab Sample ID: LCS 310-462295/4
Matrix: Water
Analysis Batch: 462295

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	9.639		mg/L		96	90 - 110
Fluoride	2.00	1.923		mg/L		96	90 - 110
Sulfate	10.0	9.984		mg/L		100	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-462035/1-A
Matrix: Water
Analysis Batch: 462287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.0500		0.0500		mg/L		07/30/25 09:00	07/31/25 12:16	1
Barium	<0.00200		0.00200		mg/L		07/30/25 09:00	07/31/25 12:16	1
Cadmium	<0.000200		0.000200		mg/L		07/30/25 09:00	07/31/25 12:16	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

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

Lab Sample ID: MB 310-462035/1-A
Matrix: Water
Analysis Batch: 462287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	<0.0200		0.0200		mg/L		07/30/25 09:00	07/31/25 12:16	1
Manganese	<0.0100		0.0100		mg/L		07/30/25 09:00	07/31/25 12:16	1

Lab Sample ID: LCS 310-462035/2-A
Matrix: Water
Analysis Batch: 462287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.200	0.1757		mg/L		88	80 - 120
Barium	0.100	0.09051		mg/L		91	80 - 120
Cadmium	0.100	0.09278		mg/L		93	80 - 120
Zinc	0.200	0.1806		mg/L		90	80 - 120
Manganese	0.100	0.08546		mg/L		85	80 - 120

Lab Sample ID: MB 310-462144/1-B
Matrix: Water
Analysis Batch: 462425

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 462387

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 16:47	1
Arsenic	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 16:47	1
Boron	<0.100		0.100		mg/L		08/01/25 09:00	08/01/25 16:47	1
Cobalt	<0.000500		0.000500		mg/L		08/01/25 09:00	08/01/25 16:47	1
Iron	<0.100		0.100		mg/L		08/01/25 09:00	08/01/25 16:47	1
Manganese	<0.0100		0.0100		mg/L		08/01/25 09:00	08/01/25 16:47	1
Molybdenum	<0.00200		0.00200		mg/L		08/01/25 09:00	08/01/25 16:47	1

Lab Sample ID: LCS 310-462144/2-B
Matrix: Water
Analysis Batch: 462425

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 462387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.1985		mg/L		99	80 - 120
Arsenic	0.200	0.1884		mg/L		94	80 - 120
Boron	0.200	0.1824		mg/L		91	80 - 120
Cobalt	0.100	0.09642		mg/L		96	80 - 120
Iron	0.200	0.2018		mg/L		101	80 - 120
Manganese	0.100	0.09551		mg/L		96	80 - 120
Molybdenum	0.200	0.1843		mg/L		92	80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-462064/1-A
Matrix: Water
Analysis Batch: 462172

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L		07/30/25 08:08	07/30/25 17:13	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-462064/2-A
Matrix: Water
Analysis Batch: 462172

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462064

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	4.00	3.886		mg/L		97	90 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 280-707723/2
Matrix: Water
Analysis Batch: 707723

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Halogens - Dup	<30.0		30.0		ug/L			08/05/25 12:46	1

Lab Sample ID: LCS 280-707723/4
Matrix: Water
Analysis Batch: 707723

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Halogens - Dup	100	93.74		ug/L		94	78 - 114

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-462190/1-A
Matrix: Water
Analysis Batch: 462307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		07/31/25 07:47	07/31/25 17:17	1

Lab Sample ID: LCS 310-462190/2-A
Matrix: Water
Analysis Batch: 462307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09684		mg/L		97	90 - 110

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-462161/1
Matrix: Water
Analysis Batch: 462161

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			07/30/25 15:14	1

Lab Sample ID: LCS 310-462161/2
Matrix: Water
Analysis Batch: 462161

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	103.0		mg/L		103	82 - 117

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Method: SM 5220D - COD

Lab Sample ID: MB 310-462227/60
Matrix: Water
Analysis Batch: 462227

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			07/31/25 10:16	1

Lab Sample ID: LCS 310-462227/63
Matrix: Water
Analysis Batch: 462227

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	119.8		mg/L		96	85 - 115

Lab Sample ID: 310-311927-1 MS
Matrix: Water
Analysis Batch: 462227

Client Sample ID: MW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	47.3		250	324.1		mg/L		111	84 - 141

Lab Sample ID: 310-311927-1 MSD
Matrix: Water
Analysis Batch: 462227

Client Sample ID: MW4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chemical Oxygen Demand	47.3		250	327.4		mg/L		112	84 - 141	1	14

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

GC/MS VOA

Analysis Batch: 462335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	8260D	
MB 310-462335/5	Method Blank	Total/NA	Water	8260D	
LCS 310-462335/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 462295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	9056A	
MB 310-462295/3	Method Blank	Total/NA	Water	9056A	
LCS 310-462295/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 462035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	3005A	
MB 310-462035/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-462035/2-A	Lab Control Sample	Total/NA	Water	3005A	

Filtration Batch: 462144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Dissolved	Water	Filtration	
MB 310-462144/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-462144/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Analysis Batch: 462287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	6020B	462035
MB 310-462035/1-A	Method Blank	Total/NA	Water	6020B	462035
LCS 310-462035/2-A	Lab Control Sample	Total/NA	Water	6020B	462035

Prep Batch: 462387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Dissolved	Water	3005A	462144
MB 310-462144/1-B	Method Blank	Dissolved	Water	3005A	462144
LCS 310-462144/2-B	Lab Control Sample	Dissolved	Water	3005A	462144

Analysis Batch: 462425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Dissolved	Water	6020B	462387
MB 310-462144/1-B	Method Blank	Dissolved	Water	6020B	462387
LCS 310-462144/2-B	Lab Control Sample	Dissolved	Water	6020B	462387

General Chemistry

Prep Batch: 462064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	Distill/Ammonia	
MB 310-462064/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 310-462064/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

General Chemistry

Analysis Batch: 462161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	I-3765-85	
MB 310-462161/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-462161/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 462172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	350.1	462064
MB 310-462064/1-A	Method Blank	Total/NA	Water	350.1	462064
LCS 310-462064/2-A	Lab Control Sample	Total/NA	Water	350.1	462064

Prep Batch: 462190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	Distill/Phenol	
MB 310-462190/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-462190/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 462227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	SM 5220D	
MB 310-462227/60	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-462227/63	Lab Control Sample	Total/NA	Water	SM 5220D	
310-311927-1 MS	MW4	Total/NA	Water	SM 5220D	
310-311927-1 MSD	MW4	Total/NA	Water	SM 5220D	

Analysis Batch: 462307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	9066	462190
MB 310-462190/1-A	Method Blank	Total/NA	Water	9066	462190
LCS 310-462190/2-A	Lab Control Sample	Total/NA	Water	9066	462190

Analysis Batch: 707723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311927-1	MW4	Total/NA	Water	9020B	
MB 280-707723/2	Method Blank	Total/NA	Water	9020B	
LCS 280-707723/4	Lab Control Sample	Total/NA	Water	9020B	

Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Client Sample ID: MW4
Date Collected: 07/24/25 11:43
Date Received: 07/25/25 13:46

Lab Sample ID: 310-311927-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462335	FE5V	EET CF	08/02/25 00:46
Total/NA	Analysis	9056A		5	462295	ZRI4	EET CF	07/30/25 13:35
Dissolved	Filtration	Filtration			462144	WK2X	EET CF	07/30/25 14:40
Dissolved	Prep	3005A			462387	WK2X	EET CF	08/01/25 09:00
Dissolved	Analysis	6020B		1	462425	NFT2	EET CF	08/01/25 17:02
Total/NA	Prep	3005A			462035	WK2X	EET CF	07/30/25 09:00
Total/NA	Analysis	6020B		1	462287	NFT2	EET CF	07/31/25 13:24
Total/NA	Prep	Distill/Ammonia			462064	E6KR	EET CF	07/30/25 08:08
Total/NA	Analysis	350.1		1	462172	ZJX4	EET CF	07/30/25 17:20
Total/NA	Analysis	9020B		1	707723	CAI	EET DEN	08/05/25 12:46
Total/NA	Prep	Distill/Phenol			462190	E6KR	EET CF	07/31/25 07:47
Total/NA	Analysis	9066		1	462307	ZJX4	EET CF	07/31/25 17:23
Total/NA	Analysis	I-3765-85		1	462161	E6KR	EET CF	07/30/25 15:14
Total/NA	Analysis	SM 5220D		5	462227	ENB7	EET CF	07/31/25 10:16

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Accreditation/Certification Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	88-00687	04-02-26
California	State	2513	01-08-26
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-26
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667	06-30-26
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-26
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-26
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-26
Minnesota	NELAP	1788752	12-31-25
Montana (DW)	State	CERT0117	01-01-26
Nevada	State	CO00026	07-31-26
New Hampshire	NELAP	2053	04-28-26
New Jersey	NELAP	CO004	06-30-26
New York	NELAP	11964	04-01-26
North Dakota	State	R-034	07-25-25 *
Oklahoma	NELAP	8614	08-31-25
Oregon	NELAP	4025	01-08-26
Pennsylvania	NELAP	68-00664	07-31-26
South Carolina	State	72002001	01-18-26
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25 *
Virginia	NELAP	460232	06-14-26
Washington	State	C583	08-03-25 *
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-25
Wyoming (UST)	A2LA	2907.01	06-09-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-311927-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET DEN
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

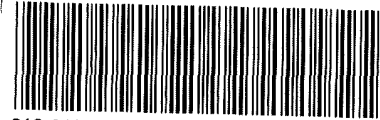
Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Environment Testing
America



310-311927 Chain of Custody

Cooler/Sample Receipt and Temperature Log

Client Information			
Client. <u>EB Solutions</u>			
City/State.	<small>CITY</small> <u>Cedar Rapids</u>	<small>STATE</small> <u>IA</u>	Project
Receipt Information			
Date/Time Received	<small>DATE</small> <u>7/25/25</u>	<small>TIME</small> <u>1350</u>	Received By <u>BP</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes: Cooler ID</i>			
Multiple Coolers? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler # ____ of ____</i>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No</i>			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No</i>			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Which VOA samples are in cooler? ↓</i>			
Temperature Record			
Coolant <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>2</u>		Correction Factor (°C) <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.4</u>		Corrected Temp (°C) <u>1.4</u>	
• Sample Container Temperature			
Container(s) used	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C).			
Corrected Temp (°C).			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) <i>If yes</i> Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-311927-1

Login Number: 311927

List Number: 1

Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-311927-1

Login Number: 311927

List Number: 2

Creator: Held, Wesley

List Source: Eurofins Denver

List Creation: 07/29/25 03:10 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	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 <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 8/21/2025 9:33:00 AM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-312381-1

Eurofins Cedar Falls

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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8/21/2025 9:33:00 AM

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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-312381-1

Job ID: 310-312381-1

Eurofins Cedar Falls

Job Narrative 310-312381-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 8/1/2025 10:55 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 2.2°C.

GC/MS VOA

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

HPLC/IC

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW5 (310-312381-1). 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

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

General Chemistry

Method 9020B_Calc: The following samples for batch 280-709806 (Total Organic Halides) were diluted to 2x due to the nature of the sample matrix based on Cl pre-screen test: MW5 (310-312381-1). 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.

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-312381-1	MW5	Water	07/31/25 11:56	08/01/25 10:55	Iowa

1

2

3

4

5

6

7

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11

12

13

14

15

Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

Client Sample ID: MW5

Lab Sample ID: 310-312381-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Sulfate	23.1		5.00		mg/L			5	9056A	Total/NA
Barium	0.0841		0.00200		mg/L			1	6020B	Total/NA
Manganese	0.0955		0.0100		mg/L			1	6020B	Total/NA
Boron	0.185		0.100		mg/L			1	6020B	Dissolved
Cobalt	0.000759		0.000500		mg/L			1	6020B	Dissolved
Manganese	0.0880		0.0100		mg/L			1	6020B	Dissolved
Ammonia as N	0.517		0.500		mg/L			1	350.1	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

Client Sample ID: MW5

Lab Sample ID: 310-312381-1

Date Collected: 07/31/25 11:56

Matrix: Water

Date Received: 08/01/25 10:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			08/07/25 20:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120					08/07/25 20:20	1
Dibromofluoromethane (Surr)	102		76 - 130					08/07/25 20:20	1
Toluene-d8 (Surr)	101		80 - 120					08/07/25 20:20	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			08/15/25 16:45	5
Fluoride	<1.00		1.00		mg/L			08/15/25 16:45	5
Sulfate	23.1		5.00		mg/L			08/15/25 16:45	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		08/07/25 09:15	08/12/25 14:29	1
Barium	0.0841		0.00200		mg/L		08/07/25 09:15	08/12/25 14:29	1
Cadmium	<0.000200		0.000200		mg/L		08/07/25 09:15	08/12/25 14:29	1
Manganese	0.0955		0.0100		mg/L		08/07/25 09:15	08/12/25 14:29	1
Zinc	<0.0200		0.0200		mg/L		08/07/25 09:15	08/12/25 14:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		08/14/25 09:00	08/14/25 18:21	1
Arsenic	<0.00200		0.00200		mg/L		08/14/25 09:00	08/14/25 18:21	1
Boron	0.185		0.100		mg/L		08/14/25 09:00	08/14/25 18:21	1
Cobalt	0.000759		0.000500		mg/L		08/14/25 09:00	08/14/25 18:21	1
Iron	<0.100		0.100		mg/L		08/14/25 09:00	08/14/25 18:21	1
Manganese	0.0880		0.0100		mg/L		08/14/25 09:00	08/14/25 18:21	1
Molybdenum	<0.00200		0.00200		mg/L		08/14/25 09:00	08/14/25 18:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	0.517		0.500		mg/L			08/06/25 12:29	1
Total Organic Halogens - Dup (SW846 9020B)	<60.0		60.0		ug/L			08/19/25 22:06	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		08/08/25 07:56	08/08/25 16:46	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88		mg/L			08/04/25 15:10	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			08/13/25 09:46	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(76-130)	(80-120)
310-312381-1	MW5	99	102	101
LCS 310-462955/8	Lab Control Sample	94	94	108
MB 310-462955/7	Method Blank	100	98	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

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

Lab Sample ID: MB 310-462955/7
Matrix: Water
Analysis Batch: 462955

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			08/07/25 13:57	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					08/07/25 13:57	1
Dibromofluoromethane (Surr)	98		76 - 130					08/07/25 13:57	1
Toluene-d8 (Surr)	103		80 - 120					08/07/25 13:57	1

Lab Sample ID: LCS 310-462955/8
Matrix: Water
Analysis Batch: 462955

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	41.28		ug/L		103	60 - 134
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		80 - 120				
Dibromofluoromethane (Surr)	94		76 - 130				
Toluene-d8 (Surr)	108		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-464077/3
Matrix: Water
Analysis Batch: 464077

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			08/15/25 15:59	1
Fluoride	<0.200		0.200		mg/L			08/15/25 15:59	1
Sulfate	<1.00		1.00		mg/L			08/15/25 15:59	1

Lab Sample ID: LCS 310-464077/4
Matrix: Water
Analysis Batch: 464077

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	9.887		mg/L		99	90 - 110
Fluoride	2.00	1.996		mg/L		100	90 - 110
Sulfate	10.0	10.15		mg/L		102	90 - 110

Lab Sample ID: 310-312381-1 MS
Matrix: Water
Analysis Batch: 464077

Client Sample ID: MW5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<5.00		25.0	24.61		mg/L		98	80 - 120
Fluoride	<1.00		5.00	5.786		mg/L		99	80 - 120
Sulfate	23.1		25.0	47.66		mg/L		98	80 - 120

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

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

Lab Sample ID: 310-312381-1 MSD
Matrix: Water
Analysis Batch: 464077

Client Sample ID: MW5
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	<5.00		25.0	24.81		mg/L		99	80 - 120	1	15
Fluoride	<1.00		5.00	5.805		mg/L		100	80 - 120	0	15
Sulfate	23.1		25.0	47.62		mg/L		98	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-462874/1-A
Matrix: Water
Analysis Batch: 463464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 462874

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	<0.0500		0.0500		mg/L		08/07/25 09:15	08/12/25 13:09	1
Barium	<0.00200		0.00200		mg/L		08/07/25 09:15	08/12/25 13:09	1
Cadmium	<0.000200		0.000200		mg/L		08/07/25 09:15	08/12/25 13:09	1
Zinc	<0.0200		0.0200		mg/L		08/07/25 09:15	08/12/25 13:09	1
Manganese	<0.0100		0.0100		mg/L		08/07/25 09:15	08/12/25 13:09	1

Lab Sample ID: LCS 310-462874/2-A
Matrix: Water
Analysis Batch: 463464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 462874

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Aluminum	0.200	0.1850		mg/L		93	80 - 120
Barium	0.100	0.08725		mg/L		87	80 - 120
Cadmium	0.100	0.09617		mg/L		96	80 - 120
Zinc	0.200	0.1717		mg/L		86	80 - 120
Manganese	0.100	0.09726		mg/L		97	80 - 120

Lab Sample ID: MB 310-463420/1-B
Matrix: Water
Analysis Batch: 463742

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 463572

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		08/14/25 09:00	08/14/25 17:55	1
Arsenic	<0.00200		0.00200		mg/L		08/14/25 09:00	08/14/25 17:55	1
Boron	<0.100		0.100		mg/L		08/14/25 09:00	08/14/25 17:55	1
Cobalt	<0.000500		0.000500		mg/L		08/14/25 09:00	08/14/25 17:55	1
Iron	<0.100		0.100		mg/L		08/14/25 09:00	08/14/25 17:55	1
Manganese	<0.0100		0.0100		mg/L		08/14/25 09:00	08/14/25 17:55	1
Molybdenum	<0.00200		0.00200		mg/L		08/14/25 09:00	08/14/25 17:55	1

Lab Sample ID: LCS 310-463420/2-B
Matrix: Water
Analysis Batch: 463742

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 463572

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Antimony	0.200	0.1929		mg/L		96	80 - 120
Arsenic	0.200	0.1978		mg/L		99	80 - 120
Boron	0.200	0.1972		mg/L		99	80 - 120
Cobalt	0.100	0.09960		mg/L		100	80 - 120

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QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

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

Lab Sample ID: LCS 310-463420/2-B
Matrix: Water
Analysis Batch: 463742

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 463572

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	0.200	0.1951		mg/L		98	80 - 120
Manganese	0.100	0.09045		mg/L		90	80 - 120
Molybdenum	0.200	0.1850		mg/L		92	80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-462878/17
Matrix: Water
Analysis Batch: 462878

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L			08/06/25 11:19	1

Lab Sample ID: LCS 310-462878/18
Matrix: Water
Analysis Batch: 462878

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	2.26	2.245		mg/L		99	90 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 280-709806/2
Matrix: Water
Analysis Batch: 709806

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Halogens - Dup	<30.0		30.0		ug/L			08/19/25 22:06	1

Lab Sample ID: LCS 280-709806/4
Matrix: Water
Analysis Batch: 709806

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Halogens - Dup	100	93.89		ug/L		94	78 - 114

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-463025/1-A
Matrix: Water
Analysis Batch: 463160

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 463025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		08/08/25 07:56	08/08/25 16:45	1

Lab Sample ID: LCS 310-463025/2-A
Matrix: Water
Analysis Batch: 463160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09137		mg/L		91	90 - 110

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: 310-312381-1 MS
Matrix: Water
Analysis Batch: 463160

Client Sample ID: MW5
Prep Type: Total/NA
Prep Batch: 463025

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	<0.0200		0.100	0.09921		mg/L		99	68 - 126

Lab Sample ID: 310-312381-1 MSD
Matrix: Water
Analysis Batch: 463160

Client Sample ID: MW5
Prep Type: Total/NA
Prep Batch: 463025

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	<0.0200		0.100	0.09531		mg/L		95	68 - 126	4	22

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-462562/1
Matrix: Water
Analysis Batch: 462562

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			08/04/25 15:10	1

Lab Sample ID: LCS 310-462562/2
Matrix: Water
Analysis Batch: 462562

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	105.0		mg/L		105	82 - 117

Method: SM 5220D - COD

Lab Sample ID: MB 310-463500/5
Matrix: Water
Analysis Batch: 463500

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			08/13/25 09:46	1

Lab Sample ID: LCS 310-463500/3
Matrix: Water
Analysis Batch: 463500

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	125.0		mg/L		100	85 - 115

QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

GC/MS VOA

Analysis Batch: 462955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	8260D	
MB 310-462955/7	Method Blank	Total/NA	Water	8260D	
LCS 310-462955/8	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 464077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	9056A	
MB 310-464077/3	Method Blank	Total/NA	Water	9056A	
LCS 310-464077/4	Lab Control Sample	Total/NA	Water	9056A	
310-312381-1 MS	MW5	Total/NA	Water	9056A	
310-312381-1 MSD	MW5	Total/NA	Water	9056A	

Metals

Prep Batch: 462874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	3005A	
MB 310-462874/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-462874/2-A	Lab Control Sample	Total/NA	Water	3005A	

Filtration Batch: 463420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Dissolved	Water	Filtration	
MB 310-463420/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-463420/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Analysis Batch: 463464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	6020B	462874
MB 310-462874/1-A	Method Blank	Total/NA	Water	6020B	462874
LCS 310-462874/2-A	Lab Control Sample	Total/NA	Water	6020B	462874

Prep Batch: 463572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Dissolved	Water	3005A	463420
MB 310-463420/1-B	Method Blank	Dissolved	Water	3005A	463420
LCS 310-463420/2-B	Lab Control Sample	Dissolved	Water	3005A	463420

Analysis Batch: 463742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Dissolved	Water	6020B	463572
MB 310-463420/1-B	Method Blank	Dissolved	Water	6020B	463572
LCS 310-463420/2-B	Lab Control Sample	Dissolved	Water	6020B	463572

General Chemistry

Analysis Batch: 462562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	I-3765-85	
MB 310-462562/1	Method Blank	Total/NA	Water	I-3765-85	

Eurofins Cedar Falls

QC Association Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-312381-1

General Chemistry (Continued)

Analysis Batch: 462562 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-462562/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 462878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	350.1	
MB 310-462878/17	Method Blank	Total/NA	Water	350.1	
LCS 310-462878/18	Lab Control Sample	Total/NA	Water	350.1	

Prep Batch: 463025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	Distill/Phenol	
MB 310-463025/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-463025/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
310-312381-1 MS	MW5	Total/NA	Water	Distill/Phenol	
310-312381-1 MSD	MW5	Total/NA	Water	Distill/Phenol	

Analysis Batch: 463160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	9066	463025
MB 310-463025/1-A	Method Blank	Total/NA	Water	9066	463025
LCS 310-463025/2-A	Lab Control Sample	Total/NA	Water	9066	463025
310-312381-1 MS	MW5	Total/NA	Water	9066	463025
310-312381-1 MSD	MW5	Total/NA	Water	9066	463025

Analysis Batch: 463500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	SM 5220D	
MB 310-463500/5	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-463500/3	Lab Control Sample	Total/NA	Water	SM 5220D	

Analysis Batch: 709806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-312381-1	MW5	Total/NA	Water	9020B	
MB 280-709806/2	Method Blank	Total/NA	Water	9020B	
LCS 280-709806/4	Lab Control Sample	Total/NA	Water	9020B	

Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

Client Sample ID: MW5

Lab Sample ID: 310-312381-1

Date Collected: 07/31/25 11:56

Matrix: Water

Date Received: 08/01/25 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	462955	WSE8	EET CF	08/07/25 20:20
Total/NA	Analysis	9056A		5	464077	QTZ5	EET CF	08/15/25 16:45
Dissolved	Filtration	Filtration			463420	QTZ5	EET CF	08/12/25 16:20
Dissolved	Prep	3005A			463572	QTZ5	EET CF	08/14/25 09:00
Dissolved	Analysis	6020B		1	463742	NFT2	EET CF	08/14/25 18:21
Total/NA	Prep	3005A			462874	WK2X	EET CF	08/07/25 09:15
Total/NA	Analysis	6020B		1	463464	NFT2	EET CF	08/12/25 14:29
Total/NA	Analysis	350.1		1	462878	WZC8	EET CF	08/06/25 12:29
Total/NA	Analysis	9020B		1	709806	CAI	EET DEN	08/19/25 22:06
Total/NA	Prep	Distill/Phenol			463025	E6KR	EET CF	08/08/25 07:56
Total/NA	Analysis	9066		1	463160	ENB7	EET CF	08/08/25 16:46
Total/NA	Analysis	I-3765-85		1	462562	E6KR	EET CF	08/04/25 15:10
Total/NA	Analysis	SM 5220D		5	463500	ENB7	EET CF	08/13/25 09:46

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Accreditation/Certification Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-312381-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	88-00687	04-02-26
California	State	2513	01-08-26
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-26
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667	06-30-26
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-26
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-26
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-26
Minnesota	NELAP	1788752	12-31-25
Montana (DW)	State	CERT0117	01-01-26
Nevada	State	CO00026	07-31-26
New Hampshire	NELAP	2053	04-28-26
New Jersey	NELAP	CO004	06-30-26
New York	NELAP	11964	04-01-26
North Dakota	State	R-034	07-25-25 *
Oklahoma	NELAP	8614	08-31-25
Oregon	NELAP	4025	01-08-26
Pennsylvania	NELAP	68-00664	07-31-26
South Carolina	State	72002001	01-18-26
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25 *
Virginia	NELAP	460232	06-14-26
Washington	State	C583	08-03-25 *
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-26
Wyoming (UST)	A2LA	2907.01	06-09-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-312381-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET DEN
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

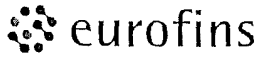
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

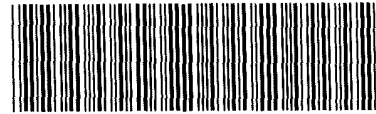
Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Environment Testing
America



310-312381 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>EB Solutions</u>			
City/State:	CITY <u>Cedar Rapids</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received	DATE <u>6/11/25</u>	TIME <u>1055</u>	Received By <u>BP</u>
Delivery Type <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes</i> Cooler ID _____			
Multiple Coolers? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes</i> Cooler # _____ of _____			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes</i> Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes</i> Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes</i> Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant. <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other _____ <input type="checkbox"/> NONE			
Thermometer ID. <u>AA</u>		Correction Factor (°C) <u>±0</u>	
• 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(s) used.	CONTAINER 1 <u>pl 250 ml N</u>	CONTAINER 2	
Uncorrected Temp (°C):	<u>2.2</u>		
Corrected Temp (°C):	<u>2.2</u>		
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) <i>If yes</i> Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

TestAmerica Cedar Falls
 704 Enterprise Drive
 Cedar Falls IA 50613
 Phone (319) 277-2401 Fax (319) 277 2425

Chain of Custody Record

Client Information	Sampler: <i>EL Boltz</i> Lab PM: <i>Bindert, Zach T</i> Chain Contact: <i>Zach Bindert</i> Phone: <i>zach.bindert@testamericainc.com</i>	COC No: 310-36804-12214 1 Page: Page 1 of 1 Job #:	Carrier Tracking Notes
Company: EB Solutions Inc Address: 5060 4th St SW City: Cedar Rapids State Zip: IA, 52404 Phone: Email: edbertch@ebsolutionsinc-web.com Project Name: Crawford Project Site:	Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 31007226 SSOW#:	Analysis Requested 9056A_ORGFM_28D Chloride Fluoride, sulfate 6020A Dissolved Metals Total Metals 6020A, 7470A 9066 - Total Recoverable Phenolics 8260C Benzene and Methyl Ethyl Ketone I, 3765_95 - Residue, Non-filterable (RSS) 9020B - Total Organic Halides (TOX)	Preservation Codes: A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Anichlor H Ascorbic Acid I Ice J DI Water K EDTA L EDA Other 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 Z other (specify)
Sample Identification <i>MW5</i> Sample Date: <i>7-31-25</i> Sample Time: <i>11:56</i> Sample Type (C=Comp, G=grab): <i>6</i> Matrix (w/water, s/solid, o/water/oil, etc. (H2O, A, W)) Water	Field Filtered Sample (Yes or No) Form MS/MSD (Yes or No) 8270D - 2,4 Dinitrotoluene Pyridine Pentachlor Ammonia - 350 f, COD 5220D 9056A_ORGFM_28D Chloride Fluoride, sulfate 6020A Dissolved Metals Total Metals 6020A, 7470A 9066 - Total Recoverable Phenolics 8260C Benzene and Methyl Ethyl Ketone I, 3765_95 - Residue, Non-filterable (RSS) 9020B - Total Organic Halides (TOX)	Total Number of Containers 12 12 12 12 12 12 12 12 12 12 3	Special Instructions/Note: Special Instructions/Note:
Sample Disposal <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab Archive For _____ Months	Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	Deliverable Requested I II III IV Other (specify)	Special Instructions/QC Requirements.
Empty Kit Relinquished by Relinquished by: <i>[Signature]</i> Date/Time: <i>7-31-25 / 3:00</i> Company: <i>EB Solutions Inc</i>	Received by Received by: <i>[Signature]</i> Date/Time: <i>8-1-25 8:55</i> Company:	Method of Shipment Date/Time:	Company
Relinquished by Relinquished by: <i>[Signature]</i> Date/Time:	Received by Received by: <i>[Signature]</i> Date/Time:	Method of Shipment Date/Time:	Company
Relinquished by Relinquished by: <i>[Signature]</i> Date/Time:	Received by Received by: <i>[Signature]</i> Date/Time:	Method of Shipment Date/Time:	Company
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks	



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-312381-1

Login Number: 312381

List Number: 1

Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-312381-1

Login Number: 312381

List Number: 2

Creator: Padgett, Dylan T

List Source: Eurofins Denver

List Creation: 08/02/25 12:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





ANALYTICAL REPORT

PREPARED FOR

Attn: Edward Bertch
EB Solutions, Inc
5060 4th St. SW
Cedar Rapids, Iowa 52404

Generated 9/4/2025 9:33:14 AM

JOB DESCRIPTION

Crawford Project

JOB NUMBER

310-313249-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
9/4/2025 9:33:14 AM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016



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Case Narrative

Client: EB Solutions, Inc
Project: Crawford Project

Job ID: 310-313249-1

Job ID: 310-313249-1

Eurofins Cedar Falls

Job Narrative 310-313249-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 8/13/2025 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 5.0°C.

GC/MS VOA

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

HPLC/IC

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

Metals

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

General Chemistry

Method 9020B_Calc: The following samples for batch 280-711640 (Total Organic Halides) were diluted to 2x due to the nature of the sample matrix based on Cl pre-screen test: MW3 (310-313249-1). 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.

Eurofins Cedar Falls

Sample Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-313249-1	MW3	Water	08/12/25 10:05	08/13/25 09:20	Iowa

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Detection Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

Client Sample ID: MW3

Lab Sample ID: 310-313249-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	117		5.00		mg/L	5		9056A	Total/NA
Sulfate	44.5		5.00		mg/L	5		9056A	Total/NA
Barium	0.320		0.00200		mg/L	1		6020B	Total/NA
Molybdenum	0.00219		0.00200		mg/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

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Client Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

Client Sample ID: MW3

Lab Sample ID: 310-313249-1

Date Collected: 08/12/25 10:05

Matrix: Water

Date Received: 08/13/25 09:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			08/20/25 13:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120					08/20/25 13:53	1
Dibromofluoromethane (Surr)	122		76 - 130					08/20/25 13:53	1
Toluene-d8 (Surr)	94		80 - 120					08/20/25 13:53	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		5.00		mg/L			08/26/25 17:09	5
Fluoride	<1.00		1.00		mg/L			08/26/25 17:09	5
Sulfate	44.5		5.00		mg/L			08/26/25 17:09	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		08/20/25 09:00	08/21/25 15:07	1
Barium	0.320		0.00200		mg/L		08/20/25 09:00	08/21/25 15:07	1
Cadmium	<0.000200		0.000200		mg/L		08/20/25 09:00	08/21/25 15:07	1
Manganese	<0.0100		0.0100		mg/L		08/20/25 09:00	08/21/25 15:07	1
Zinc	<0.0200		0.0200		mg/L		08/20/25 09:00	08/21/25 15:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		08/25/25 09:30	08/25/25 17:21	1
Arsenic	<0.00200		0.00200		mg/L		08/25/25 09:30	08/25/25 17:21	1
Boron	<0.100		0.100		mg/L		08/25/25 09:30	08/25/25 17:21	1
Cobalt	<0.000500		0.000500		mg/L		08/25/25 09:30	08/25/25 17:21	1
Iron	<0.100		0.100		mg/L		08/25/25 09:30	08/25/25 17:21	1
Manganese	<0.0100		0.0100		mg/L		08/25/25 09:30	08/25/25 17:21	1
Molybdenum	0.00219		0.00200		mg/L		08/25/25 09:30	08/25/25 17:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	<0.500		0.500		mg/L			08/22/25 11:09	1
Total Organic Halogens - Dup (SW846 9020B)	<60.0		60.0		ug/L			09/02/25 13:31	1
Phenols, Total (SW846 9066)	<0.0200		0.0200		mg/L		08/15/25 08:43	08/15/25 15:31	1
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88		mg/L			08/15/25 14:50	1
Chemical Oxygen Demand (SM 5220D)	<25.0		25.0		mg/L			08/22/25 10:19	5

Definitions/Glossary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

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.

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: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(76-130)	(80-120)
310-313249-1	MW3	103	122	94
LCS 310-464079/6	Lab Control Sample	104	96	102
MB 310-464079/5	Method Blank	101	121	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

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

Lab Sample ID: MB 310-464079/5
Matrix: Water
Analysis Batch: 464079

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0		ug/L			08/20/25 05:38	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					08/20/25 05:38	1
Dibromofluoromethane (Surr)	121		76 - 130					08/20/25 05:38	1
Toluene-d8 (Surr)	97		80 - 120					08/20/25 05:38	1

Lab Sample ID: LCS 310-464079/6
Matrix: Water
Analysis Batch: 464079

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	35.69		ug/L		89	60 - 134
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	104		80 - 120				
Dibromofluoromethane (Surr)	96		76 - 130				
Toluene-d8 (Surr)	102		80 - 120				

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-465048/3
Matrix: Water
Analysis Batch: 465048

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			08/26/25 16:46	1
Fluoride	<0.200		0.200		mg/L			08/26/25 16:46	1
Sulfate	<1.00		1.00		mg/L			08/26/25 16:46	1

Lab Sample ID: LCS 310-465048/4
Matrix: Water
Analysis Batch: 465048

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	9.416		mg/L		94	90 - 110
Fluoride	2.00	1.833		mg/L		92	90 - 110
Sulfate	10.0	9.635		mg/L		96	90 - 110

Lab Sample ID: 310-313249-1 MS
Matrix: Water
Analysis Batch: 465048

Client Sample ID: MW3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	117		25.0	135.5	4	mg/L		72	80 - 120
Fluoride	<1.00		5.00	4.998		mg/L		100	80 - 120
Sulfate	44.5		25.0	68.27		mg/L		95	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

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

Lab Sample ID: 310-313249-1 MSD
Matrix: Water
Analysis Batch: 465048

Client Sample ID: MW3
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Chloride	117		25.0	135.5	4	mg/L		72	80 - 120	0	15
Fluoride	<1.00		5.00	5.043		mg/L		101	80 - 120	1	15
Sulfate	44.5		25.0	68.09		mg/L		94	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-464144/1-A
Matrix: Water
Analysis Batch: 464441

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 464144

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	<0.0500		0.0500		mg/L		08/20/25 09:00	08/21/25 14:18	1
Barium	<0.00200		0.00200		mg/L		08/20/25 09:00	08/21/25 14:18	1
Cadmium	<0.000200		0.000200		mg/L		08/20/25 09:00	08/21/25 14:18	1
Zinc	<0.0200		0.0200		mg/L		08/20/25 09:00	08/21/25 14:18	1
Manganese	<0.0100		0.0100		mg/L		08/20/25 09:00	08/21/25 14:18	1

Lab Sample ID: LCS 310-464144/2-A
Matrix: Water
Analysis Batch: 464441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 464144

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Aluminum	0.200	0.1939		mg/L		97	80 - 120
Barium	0.100	0.09377		mg/L		94	80 - 120
Cadmium	0.100	0.09352		mg/L		94	80 - 120
Zinc	0.200	0.1741		mg/L		87	80 - 120
Manganese	0.100	0.08984		mg/L		90	80 - 120

Lab Sample ID: 310-313249-1 DU
Matrix: Water
Analysis Batch: 464441

Client Sample ID: MW3
Prep Type: Total/NA
Prep Batch: 464144

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Aluminum	<0.0500		<0.0500		mg/L		NC	20
Barium	0.320		0.3468		mg/L		8	20
Cadmium	<0.000200		<0.000200		mg/L		NC	20
Zinc	<0.0200		<0.0200		mg/L		NC	20
Manganese	<0.0100		<0.0100		mg/L		NC	20

Lab Sample ID: MB 310-464494/1-B
Matrix: Water
Analysis Batch: 464726

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 464519

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.00200		0.00200		mg/L		08/25/25 09:30	08/25/25 16:40	1
Arsenic	<0.00200		0.00200		mg/L		08/25/25 09:30	08/25/25 16:40	1
Boron	<0.100		0.100		mg/L		08/25/25 09:30	08/25/25 16:40	1
Cobalt	<0.000500		0.000500		mg/L		08/25/25 09:30	08/25/25 16:40	1
Iron	<0.100		0.100		mg/L		08/25/25 09:30	08/25/25 16:40	1
Manganese	<0.0100		0.0100		mg/L		08/25/25 09:30	08/25/25 16:40	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

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

Lab Sample ID: MB 310-464494/1-B
Matrix: Water
Analysis Batch: 464726

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 464519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.00200		0.00200		mg/L		08/25/25 09:30	08/25/25 16:40	1

Lab Sample ID: LCS 310-464494/2-B
Matrix: Water
Analysis Batch: 464726

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 464519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2254		mg/L		113	80 - 120
Arsenic	0.200	0.1907		mg/L		95	80 - 120
Boron	0.200	0.1979		mg/L		99	80 - 120
Cobalt	0.100	0.09847		mg/L		98	80 - 120
Iron	0.200	0.2243		mg/L		112	80 - 120
Manganese	0.100	0.09599		mg/L		96	80 - 120
Molybdenum	0.200	0.2070		mg/L		103	80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-464565/16
Matrix: Water
Analysis Batch: 464565

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.500		0.500		mg/L			08/22/25 11:02	1

Lab Sample ID: LCS 310-464565/17
Matrix: Water
Analysis Batch: 464565

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	2.26	2.312		mg/L		102	90 - 110

Lab Sample ID: 310-313249-1 MS
Matrix: Water
Analysis Batch: 464565

Client Sample ID: MW3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	<0.500		2.50	2.422		mg/L		97	90 - 110

Lab Sample ID: 310-313249-1 MSD
Matrix: Water
Analysis Batch: 464565

Client Sample ID: MW3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia as N	<0.500		2.50	2.453		mg/L		98	90 - 110	1	20

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 280-711640/2
Matrix: Water
Analysis Batch: 711640

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Halogens - Dup	<30.0		30.0		ug/L			09/02/25 13:31	1

Lab Sample ID: LCS 280-711640/4
Matrix: Water
Analysis Batch: 711640

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Halogens - Dup	100	93.41		ug/L		93	78 - 114

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-463755/1-A
Matrix: Water
Analysis Batch: 463858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 463755

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200		mg/L		08/15/25 08:43	08/15/25 15:25	1

Lab Sample ID: LCS 310-463755/2-A
Matrix: Water
Analysis Batch: 463858

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463755

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.1005		mg/L		100	90 - 110

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-463845/1
Matrix: Water
Analysis Batch: 463845

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00		mg/L			08/15/25 14:50	1

Lab Sample ID: LCS 310-463845/2
Matrix: Water
Analysis Batch: 463845

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	109.0		mg/L		109	82 - 117

Method: SM 5220D - COD

Lab Sample ID: MB 310-464482/5
Matrix: Water
Analysis Batch: 464482

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00		mg/L			08/22/25 10:19	1

Eurofins Cedar Falls

QC Sample Results

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 310-464482/3

Matrix: Water

Analysis Batch: 464482

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	128.4		mg/L		102	85 - 115

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QC Association Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

GC/MS VOA

Analysis Batch: 464079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	8260D	
MB 310-464079/5	Method Blank	Total/NA	Water	8260D	
LCS 310-464079/6	Lab Control Sample	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 465048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	9056A	
MB 310-465048/3	Method Blank	Total/NA	Water	9056A	
LCS 310-465048/4	Lab Control Sample	Total/NA	Water	9056A	
310-313249-1 MS	MW3	Total/NA	Water	9056A	
310-313249-1 MSD	MW3	Total/NA	Water	9056A	

Metals

Prep Batch: 464144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	3005A	
MB 310-464144/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-464144/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-313249-1 DU	MW3	Total/NA	Water	3005A	

Analysis Batch: 464441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	6020B	464144
MB 310-464144/1-A	Method Blank	Total/NA	Water	6020B	464144
LCS 310-464144/2-A	Lab Control Sample	Total/NA	Water	6020B	464144
310-313249-1 DU	MW3	Total/NA	Water	6020B	464144

Filtration Batch: 464494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Dissolved	Water	Filtration	
MB 310-464494/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-464494/2-B	Lab Control Sample	Dissolved	Water	Filtration	

Prep Batch: 464519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Dissolved	Water	3005A	464494
MB 310-464494/1-B	Method Blank	Dissolved	Water	3005A	464494
LCS 310-464494/2-B	Lab Control Sample	Dissolved	Water	3005A	464494

Analysis Batch: 464726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Dissolved	Water	6020B	464519
MB 310-464494/1-B	Method Blank	Dissolved	Water	6020B	464519
LCS 310-464494/2-B	Lab Control Sample	Dissolved	Water	6020B	464519

QC Association Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-313249-1

General Chemistry

Prep Batch: 463755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	Distill/Phenol	
MB 310-463755/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-463755/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Analysis Batch: 463845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	I-3765-85	
MB 310-463845/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-463845/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 463858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	9066	463755
MB 310-463755/1-A	Method Blank	Total/NA	Water	9066	463755
LCS 310-463755/2-A	Lab Control Sample	Total/NA	Water	9066	463755

Analysis Batch: 464482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	SM 5220D	
MB 310-464482/5	Method Blank	Total/NA	Water	SM 5220D	
LCS 310-464482/3	Lab Control Sample	Total/NA	Water	SM 5220D	

Analysis Batch: 464565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	350.1	
MB 310-464565/16	Method Blank	Total/NA	Water	350.1	
LCS 310-464565/17	Lab Control Sample	Total/NA	Water	350.1	
310-313249-1 MS	MW3	Total/NA	Water	350.1	
310-313249-1 MSD	MW3	Total/NA	Water	350.1	

Analysis Batch: 711640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-313249-1	MW3	Total/NA	Water	9020B	
MB 280-711640/2	Method Blank	Total/NA	Water	9020B	
LCS 280-711640/4	Lab Control Sample	Total/NA	Water	9020B	

Lab Chronicle

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

Client Sample ID: MW3

Lab Sample ID: 310-313249-1

Date Collected: 08/12/25 10:05

Matrix: Water

Date Received: 08/13/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	464079	WSE8	EET CF	08/20/25 13:53
Total/NA	Analysis	9056A		5	465048	ZRI4	EET CF	08/26/25 17:09
Dissolved	Filtration	Filtration			464494	WK2X	EET CF	08/22/25 12:00
Dissolved	Prep	3005A			464519	WK2X	EET CF	08/25/25 09:30
Dissolved	Analysis	6020B		1	464726	NFT2	EET CF	08/25/25 17:21
Total/NA	Prep	3005A			464144	WK2X	EET CF	08/20/25 09:00
Total/NA	Analysis	6020B		1	464441	NFT2	EET CF	08/21/25 15:07
Total/NA	Analysis	350.1		1	464565	WZC8	EET CF	08/22/25 11:09
Total/NA	Analysis	9020B		1	711640	CAI	EET DEN	09/02/25 13:31
Total/NA	Prep	Distill/Phenol			463755	E6KR	EET CF	08/15/25 08:43
Total/NA	Analysis	9066		1	463858	ENB7	EET CF	08/15/25 15:31
Total/NA	Analysis	I-3765-85		1	463845	E6KR	EET CF	08/15/25 14:50
Total/NA	Analysis	SM 5220D		5	464482	ENB7	EET CF	08/22/25 10:19

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: EB Solutions, Inc
 Project/Site: Crawford Project

Job ID: 310-313249-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	88-00687	04-02-26
California	State	2513	01-08-26
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-26
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667	06-30-26
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-26
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	04-30-26
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-26
Minnesota	NELAP	1788752	12-31-25
Montana (DW)	State	CERT0117	01-01-26
Nevada	State	CO00026	07-31-26
New Hampshire	NELAP	2053	04-28-26
New Jersey	NELAP	CO004	06-30-26
New York	NELAP	11964	04-01-26
North Dakota	State	R-034	07-25-25 *
Oklahoma	NELAP	8614	12-31-25
Oregon	NELAP	4025	01-08-26
Pennsylvania	NELAP	68-00664	07-31-26
South Carolina	State	72002001	01-18-26
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25 *
Virginia	NELAP	460232	06-14-26
Washington	State	C583	08-03-26
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-26
Wyoming (UST)	A2LA	2907.01	06-09-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: EB Solutions, Inc
Project/Site: Crawford Project

Job ID: 310-313249-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET DEN
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
SM 5220D	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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.

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>EB Solutions</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE	TIME	Received By.
	<u>8.13.25</u>	<u>0920</u>	<u>CGC</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes: Cooler ID.</i>			
Multiple Coolers? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler # ____ of ____</i>			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Cooler custody seals intact?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Sample custody seals intact?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes: Which VOA samples are in cooler? ↓</i>			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID. <u>P</u>		Correction Factor (°C). <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>5.0</u>		Corrected Temp (°C): <u>5.0</u>	
• Sample Container Temperature			
Container(s) used.	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) <i>If yes: Is there evidence that the chilling process began?</i> <input type="checkbox"/> Yes <input type="checkbox"/> 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?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Chain of Custody Record

Client Information Company: Edward Bertsch Address: 5060 4th St SW City: Cedar Rapids State: IA, Zip: 52404 Phone: _____ Email: edbertsch@ebolutionsinc web.com Project Name: Crawford Project SIC: _____		Name: <u>Ed Bertsch</u> Title: <u>Owner</u> Contact: Zach T Email: zach.bird@testamericainc.com		COC No: 310-36804 12214 1 Page 1 of 1 Job #: _____	
Analysis Requested 8270D 2,4-Dinitrotoluene Pyridine Pentachloro Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N 9056A ORGM_28D Chloride Fluoride Sulfate Ammonia 3501 COD 5220D <input checked="" type="checkbox"/> N 6020A Dissolved Metals Total Metals 6020A 7470A <input checked="" type="checkbox"/> N 9066 Total Recoverable Phenolics Benzene and Methyl Ethyl Ketone <input checked="" type="checkbox"/> A 8260C Benzene and Methyl Ethyl Ketone 1,3765,85 Residue Non Filterable (TSS) <input checked="" type="checkbox"/> N 9020B Total Organic Halides (TOX) <input checked="" type="checkbox"/> S		Analysis Requested 8270D 2,4-Dinitrotoluene Pyridine Pentachloro Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N 9056A ORGM_28D Chloride Fluoride Sulfate Ammonia 3501 COD 5220D <input checked="" type="checkbox"/> N 6020A Dissolved Metals Total Metals 6020A 7470A <input checked="" type="checkbox"/> N 9066 Total Recoverable Phenolics Benzene and Methyl Ethyl Ketone <input checked="" type="checkbox"/> A 8260C Benzene and Methyl Ethyl Ketone 1,3765,85 Residue Non Filterable (TSS) <input checked="" type="checkbox"/> N 9020B Total Organic Halides (TOX) <input checked="" type="checkbox"/> S		Total Number of Containers: 12 Special Instructions/Note: _____	
Sample Identification Sample Date: <u>8/12/25</u> Sample Time: <u>10:05</u> Sample Type: <u>G-grab</u> Matrix: <u>Water</u> Preservation Code: <u>6</u>		Due Date Requested: _____ TAT Requested (days): _____ FIO#: _____ IWO #: _____ Project #: 31007226 SSO#: _____		Preservation Codes: A HCL, B NaOH, C Zn Acetat, D Nitric Acid, F NaHSO4, F H2O, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, Other: _____ Ix Hexane, N None, O AsNaO2, P Na2O, Q Na2SO3, R Na2SO4, S H2SO4, T TSP Doublehydrate, U Acetone, V MCAA, W pH 4, Z other specify)	
Trip Blank Possible Hazard Identification: <input type="checkbox"/> Non-Hazard, <input type="checkbox"/> Flammable, <input type="checkbox"/> Skin Irritant, <input type="checkbox"/> Poison B, <input type="checkbox"/> Unknown, <input type="checkbox"/> Radiological, <input type="checkbox"/> Deliverable Requested I II III IV Other (specify)		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> X Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client, <input type="checkbox"/> Disposal By Lab, <input type="checkbox"/> Archive For Months		Special Instructions/QC Requirements: _____	
Empty Kit Relinquished by Relinquished by: <u>[Signature]</u> Date: <u>8/12/25</u> Time: <u>10:35</u>		Relinquished by: <u>[Signature]</u> Date: <u>8/12/25</u> Time: <u>10:35</u>		Relinquished by: <u>[Signature]</u> Date: <u>8/12/25</u> Time: <u>09:20</u>	
Company: EB Solutions Custody Seal Intact: <input checked="" type="checkbox"/> Yes, <input type="checkbox"/> No Custody Seal No: _____		Company: EB Solutions Custody Seal Intact: <input checked="" type="checkbox"/> Yes, <input type="checkbox"/> No Custody Seal No: _____		Company: EB Solutions Custody Seal Intact: <input checked="" type="checkbox"/> Yes, <input type="checkbox"/> No Custody Seal No: _____	



Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: N/A	Lab PM: Bindert, Zach T	Carrier Tracking No(s): N/A	COC No: 310-85869-1																																																																						
Client Contact: Shipping/Receiving		Phone: N/A	E-Mail: Zach.Bindert@et.eurofins.com	State of Origin: Iowa	Page: Page 1 of 1																																																																						
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Iowa		Job #: 310-313249-1	Preservation Codes:																																																																						
Address: 4955 Yarrow Street,		Due Date Requested: 9/3/2025	<table border="1"> <thead> <tr> <th colspan="2">Analysis Requested</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>9020B₁ CalcTOX in duplicate</th> <th>Total Number of containers</th> <th rowspan="2">Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>City: Arvada</td> <td>State: CO, Zip: 80002</td> <td>TAT Requested (days): N/A</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Phone: 303-736-0100(Tel) 303-431-7171(Fax)</td> <td>Email: N/A</td> <td>PO #: N/A</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Project Name: Crawsford Project</td> <td>Project #: 31007226</td> <td>WO #: N/A</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Site: N/A</td> <td>SOW#: N/A</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sample Identification - Client ID (Lab ID)</td> <td>Sample Date</td> <td>Sample Time</td> <td>Sample Type (C=comp, G=grab)</td> <td>Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)</td> <td>Preservation Code:</td> <td></td> </tr> <tr> <td>MW3 (310-313249-1)</td> <td>8/12/25</td> <td>10:05 Central</td> <td>G</td> <td>Water</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Analysis Requested		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9020B ₁ CalcTOX in duplicate	Total Number of containers	Special Instructions/Note:	City: Arvada	State: CO, Zip: 80002	TAT Requested (days): N/A					Phone: 303-736-0100(Tel) 303-431-7171(Fax)	Email: N/A	PO #: N/A					Project Name: Crawsford Project	Project #: 31007226	WO #: N/A					Site: N/A	SOW#: N/A						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)	Preservation Code:		MW3 (310-313249-1)	8/12/25	10:05 Central	G	Water																							
Analysis Requested		Field Filtered Sample (Yes or No)				Perform MS/MSD (Yes or No)	9020B ₁ CalcTOX in duplicate	Total Number of containers	Special Instructions/Note:																																																																		
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MW3 (310-313249-1)	8/12/25	10:05 Central				G	Water																																																																				
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/test/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.		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																									
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:																																																																									
Empty Kit Relinquished by:		Method of Shipment:																																																																									
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Relinquished by:		Date/Time:	Received by:																																																																								
Relinquished by:		Date/Time:	Received by:																																																																								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 1.9 5:0.2, N: [Signature]																																																																									



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-313249-1

SDG Number:

Login Number: 313249

List Number: 1

Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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



Login Sample Receipt Checklist

Client: EB Solutions, Inc

Job Number: 310-313249-1

SDG Number:

Login Number: 313249

List Number: 2

Creator: Little, Matthew L

List Source: Eurofins Denver

List Creation: 08/14/25 05:00 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



APPENDIX G

Field Sampling Records



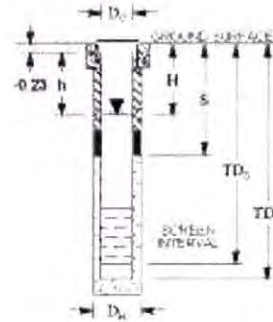
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford Quarry	Well No:	mwl
Project No:	EB93012021	Date:	2/4/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	FDR		

Method	Decon Method		
Hand Pump:	High Pressure:		Other:
Peristaltic:	2 Stage Alconox/Distilled Water:	X	
Bladder:	Triple Rinse:		
Submersible:	Remarks:		
Bailer:			

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _o):	2
Static Water Level-(ft) (H):	63.54
Total Well Depth-(ft) (TD _c):	82.95
Water Column-(ft) (WC): TD _c -H	19.41
Product Thickness-(ft):	—
Time Measure:	10:35
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24)²

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	3.86	11.59
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
10:35	133.14	7.15	1.670	—	13.96	176.1	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other:



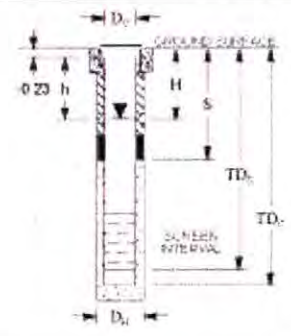
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford Quarry	Well No:	MW2
Project No:	EB93012021	Date:	2/10/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method		Decon Method	
Hand Pump:		High Pressure:	Other:
Peristaltic:		2 Stage Alconox/Distilled Water:	X
Bladder:	X	Triple Rinse:	
Submersible:		Remarks:	
Bailer:			

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _o):	2
Static Water Level-(ft) (H):	108.86
Total Well Depth-(ft) (TD _c):	114.36
Water Column-(ft) (WC): TD _c -H	5.5
Product Thickness-(ft):	—————
Time Measure:	12:05
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_H/24)² - D_o/24²)

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	1.69	3.28
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
12:05	85.17	7.24	0.490	—	9.97	257.7	C/eq

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other:



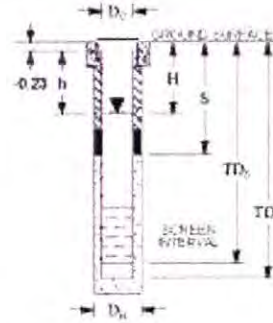
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Camford Quarry	Well No:	MW3
Project No:	EB93012021	Date:	2/17/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method		Decon Method	
Hand Pump:		High Pressure:	Other:
Peristaltic:		2 Stage Alconox/Distilled Water:	X
Bladder:	X	Triple Rinse:	
Submersible:		Remarks:	
Bailer:			

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _O):	2
Static Water Level-(ft) (H):	66.02
Total Well Depth-(ft) (TD _c):	140.00
Water Column-(ft) (WC): TD _c -H	73.98
Product Thickness-(ft):	—
Time Measure:	11:15
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_O/24)² + 3.14P(D_H/24)² - D_O/24²)

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	14.72	44.17
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
11:15	99.36	7.26	0.788	7.05	9.45	237.3	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other: _____



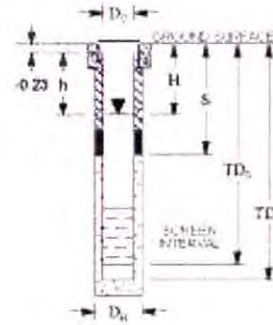
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford Quarry	Well No:	MW4
Project No:	FB93012021	Date:	2/24/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method	Decon Method		
Hand Pump:	High Pressure:		Other:
Peristaltic:	2 Stage Alconox/Distilled Water:	X	
Bladder:	Triple Rinse:		
Submersible:	Remarks:		
Bailer:			

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _O):	2
Static Water Level-(ft) (H):	33.56
Total Well Depth-(ft) (TD _c):	86.40
Water Column-(ft) (WC): TD _c -H	47.84
Product Thickness-(ft):	_____
Time Measure:	11:00
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24)²

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	9.52	28.56
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
11:00	333.94	7.83	1035	625	9.71	58.3	Clear

Purge / Sample Method

- Method 1: _____ Remove 3 BV, 80 % recovery sampled
- Method 2: _____ Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: _____ Other:



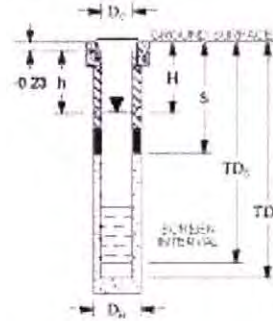
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford Quarry	Well No:	MW5
Project No:	EB93012021	Date:	3/3/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method		Decon Method	
Hand Pump:		High Pressure:	Other:
Peristaltic:		2 Stage Alconox/Distilled Water:	X
Bladder:	X	Triple Rinse:	
Submersible:		Remarks:	
Bailer:			

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _o):	2
Static Water Level-(ft) (H):	96.12
Total Well Depth-(ft) (TD _c):	120.00
Water Column-(ft) (WC): TD _c -H	23.88
Product Thickness-(ft):	—
Time Measure:	10:00
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24)²

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	4.75	14.26
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
10:00	146.81	7.42	0.534	4.20	10.16	165.8	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other:



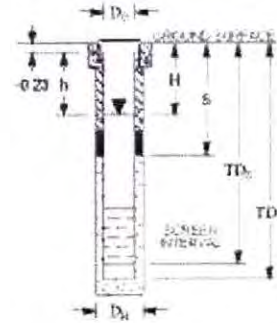
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford	Well No:	MW 1
Project No:	EB93012021	Date:	7/12/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method	Decon Method
Hand Pump:	High Pressure: <input type="checkbox"/> Other: <input type="checkbox"/>
Peristaltic:	2 Stage Alconox/Distilled Water: <input checked="" type="checkbox"/>
Bladder: <input checked="" type="checkbox"/>	Triple Rinse: <input type="checkbox"/>
Submersible:	Remarks:
Bailer:	

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _o):	2
Static Water Level-(ft) (H):	63.65
Total Well Depth-(ft) (TD _c):	82.95
Water Column-(ft) (WC): TD _c -H	19.30
Product Thickness-(ft):	_____
Time Measure:	10:53
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24)²

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	3.84	11.52
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
10:53	176.18	7.94	1.667	4.76	18.21	433	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other: _____



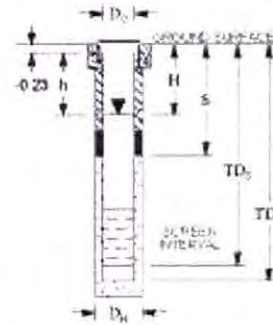
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Cedar Point	Well No:	M22
Project No:	EB93012021	Date:	7/18/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EOB		

Method	Decon Method
Hand Pump:	High Pressure: <input type="checkbox"/> Other: <input type="checkbox"/>
Peristaltic:	2 Stage Alconox/Distilled Water: <input checked="" type="checkbox"/>
Bladder: <input checked="" type="checkbox"/>	Triple Rinse: <input type="checkbox"/>
Submersible:	Remarks:
Bailer:	

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _O):	2
Static Water Level-(ft) (H):	107.4
Total Well Depth-(ft) (TD _c):	114.36
Water Column-(ft) (WC): TD _c -H	6.96
Product Thickness-(ft):	—
Time Measure:	11:11
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24²)

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	1.39	4.16
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
1:56	85.17	8.12	0.531	2.34	17.27	89.2	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other: _____



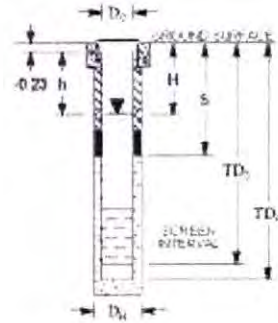
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford Quarry	Well No:	MW 4
Project No:	EB93012021	Date:	7/24/25
Location:	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method	Decon Method		
Hand Pump:	High Pressure:		Other:
Peristaltic:	2 Stage Alconox/Distilled Water:	X	
Bladder:	Triple Rinse:		
Submersible:	Remarks:		
Bailer:			

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _O):	2
Static Water Level-(ft) (H):	31.07
Total Well Depth-(ft) (TD _c):	81.40
Water Column-(ft) (WC): TD _c -H	50.33
Product Thickness-(ft):	
Time Measure:	11:43
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24)²)

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	10.02	30.05
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
11:43	388.5	7.46	0.565	3.91	15.77	56.5	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other:



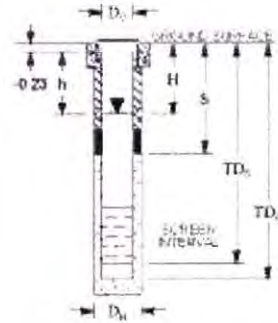
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford	Well No:	MWS
Project No:	EB93012021	Date:	7/31/25
Location	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method	Decon Method
Hand Pump:	High Pressure: <input type="checkbox"/> Other: <input type="checkbox"/>
Peristaltic:	2 Stage Alconox/Distilled Water: <input checked="" type="checkbox"/>
Bladder: <input checked="" type="checkbox"/>	Triple Rinse: <input type="checkbox"/>
Submersible:	Remarks:
Bailer:	

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _O):	2
Static Water Level-(ft) (H):	91.03
Total Well Depth-(ft) (TD _c):	120.00
Water Column-(ft) (WC): TD _c -H	28.97
Product Thickness-(ft):	_____
Time Measure:	10:00
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24)²

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	5.77	17.29
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
10:00	119.9	7.64	0.491	5.66	17.08	86.1	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other: _____



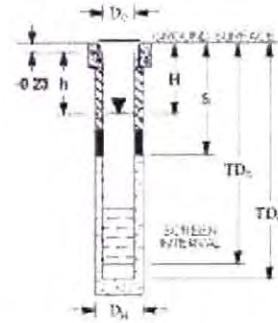
WELL DEVELOPMENT/PURGING/SAMPLING LOG

Project Name:	Crawford	Well No:	MW 3
Project No:	EB9032021	Date:	8-11-25
Location	5707 F Ave NW, Cedar Rapids, IA		
Sampled By:	EDB		

Method	Decon Method
Hand Pump:	High Pressure: <input type="checkbox"/> Other: <input type="checkbox"/>
Peristaltic:	2 Stage Alconox/Distilled Water: <input checked="" type="checkbox"/>
Bladder: <input checked="" type="checkbox"/>	Triple Rinse: <input type="checkbox"/>
Submersible:	Remarks:
Bailer:	

Well Specifications & Measurements

Boring Diameter-(in) (D _H):	5
Casing Diameter-(in) (D _O):	2
Static Water Level-(ft) (H):	62.64
Total Well Depth-(ft) (TD _c):	140.00
Water Column-(ft) (WC): TD _c -H	77.96
Product Thickness-(ft):	_____
Time Measure:	10:05
Filter Pack Porosity (P):	0.15



Borehole Volume (BV) (gal) = WC x 7.48 (3.14(D_o/24)² + 3.14P(D_h/24)² - D_o/24)²)

Casing Diameter (in):	Boring Diameter (in):	Borehole Volume (gal)	1 Borehole Volume (gal)	3 Borehole Volume (gal)
2	8	WC x 0.199	15.51	46.54
4	10	WC x 1.025		

Purge Information

		Water Characteristics					
Time	Removed Volume (gal)	pH	Conductivity (mS/cm)	DO (mg/L)	Temperature (C)	ORP (mV)	TDS (g/L)
10:05	152.16	7.59	0.877	1.94	19.86	93.3	Clear

Purge / Sample Method

- Method 1: Remove 3 BV, 80 % recovery sampled
- Method 2: Remove 5 BV, 80% recovery sampled
- Method 3: Remove 1 BV, Stable Water Characteristics, sampled
- Method 4: Other: _____