

2024 Annual Monitoring Report

Groundwater Quality Monitoring Program

Multiple Oil & Gas Well Sites

January 17, 2025 | Terracon Project No. 22237009

Prepared for:

City of Longmont
1100 South Sherman St.
Longmont, Colorado

Prepared by:

Terracon Consultants, Inc.
Longmont, Colorado



Nationwide
Terracon.com

- Facilities
- Environmental
- Geotechnical
- Materials



1831 Lefthand Circle, Suite B
Longmont, Colorado 80501
P (303) 776-3921
F (303) 776-4041
Terracon.com

January 17, 2025

City of Longmont
1100 South Sherman Street
Longmont, Colorado 80501

Attn: Dr. Jane Turner, P.E., PHD
P (303) 774-4545
E jane.turner@longmontcolorado.gov

RE: 2024 Annual Monitoring Report
Groundwater Quality Monitoring Program
Multiple Oil & Gas Sites
Longmont, Colorado 80501
Terracon Project No. 22237009

Dear Dr. Turner:

Terracon Consultants, Inc. (Terracon) is pleased to submit our report of the 2024 Annual Groundwater Quality Monitoring Program activities performed at seventeen plugged and abandoned (PA) oil and gas (O&G) well sites, and one former tank battery site located within the City of Longmont, Colorado. The report presents data from recent field activities that included the collection of groundwater samples for laboratory analysis. Terracon conducted the investigation in general accordance with our proposal (P22237009), dated May 4, 2023.

Terracon appreciates this opportunity to provide environmental consulting services to The City of Longmont. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.

A handwritten signature in black ink, appearing to read "Travis Whalen".

Travis Whalen
Field Scientist

A handwritten signature in black ink, appearing to read "John C. Graves".

John C. Graves, P.G.
Regional Manager

A handwritten signature in black ink, appearing to read "Jordan D. Goff".

Jordan D. Goff, P.G.
Project Geologist

Table of Contents

Executive Summary.....	i
Findings and Conclusions	i
Recommendations.....	ii
1.0 Introduction	1
2.0 Scope of Services.....	1
2.1 Standard of Care.....	2
2.2 Additional Scope Limitations.....	2
2.3 Reliance.....	2
3.0 Field Investigation.....	3
3.1 Safety	3
3.2 Sampling and Analytical Program Summary.....	3
3.3 Field Procedures.....	4
3.4 Monitoring Well Abandonment	4
4.0 Field Investigation Results.....	4
4.1 Hydrogeology	4
5.0 Laboratory Analytical Results	5
5.1 Organic Compounds.....	6
5.2 Inorganics in Groundwater	6

Appendices

APPENDIX A – EXHIBITS & TABLES

Exhibit 1 – Wellsite Locations Map

Exhibit 2 to 18 – Site and Potentiometric Surface Diagrams

Table 1 – Groundwater Elevation Data

Table 2 – Groundwater Analytical Results

APPENDIX B – LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS

Executive Summary

In 2013, Terracon installed and/or sampled groundwater monitoring wells at the active oil and gas (O&G) wells located within the City of Longmont (City). The results of these activities are described in the First and Third Quarter 2013 Monitoring Reports (May 31, 2013, and December 31, 2013, respectively). Terracon has continued to execute sampling activities for the City of Longmont Groundwater Quality Monitoring Program, and the results of these activities are described in the subsequent 2014 through 2023 monitoring reports.

Since 2013, Terracon has assisted the City with the investigation of additional active and plugged and abandoned (PA) well sites within Longmont City limits to add to the annual groundwater quality monitoring program. Each of the current program sites were sampled during the 2024 monitoring event.

This groundwater quality sampling event was performed in accordance with the scope of services outlined in Terracon Proposal No. P22237009, dated May 4, 2023. A total of 57 of the planned 59 monitoring wells were sampled on May 8-9, June 12-14, June 17-18, and November 6-7 to evaluate potential impacts to groundwater from current or historical O&G extraction and production (E&P) operations at the sites. Two monitoring wells (Sherwood 2-MW03 and Serafini MW-07) were unable to be sampled for groundwater as the wells were observed to have been destroyed and/or filled in with sediment. Groundwater samples were analyzed in accordance with the procedures outlined in Section 3 of this report.

A summary of our findings, conclusions, and recommendations is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Findings and Conclusions

Volatile organic compound (VOC) constituents were not reported at concentrations above laboratory reporting limits in groundwater samples collected during this sampling event.

Dissolved methane in groundwater may be an indication of a release at an O&G production well site. Neither the Colorado Energy & Carbon Management Commission (CECMC) nor the Colorado Department of Public Health and Environment (CDPHE) have developed standards for methane in groundwater. Currently, the reported methane concentrations do not require additional investigation of groundwater.

Two inorganic parameters (sulfates and chloride) were reported above CDPHE and CECMC Groundwater Standards. However, laboratory analytical results have remained consistent with previous sampling events, and results may be indicative of background concentrations

based on former analytical data and lack of production of produced water at currently active sites.

In general, increased chloride and sulfate concentrations correspond to increases in specific conductance and turbidity due to slow recharge of the monitoring well and the presence of clay in the formation. Clay is a smaller particle and passes through the monitoring well filter pack, and inorganics can attach to the clay particles.

Recommendations

The objective of the investigation was to evaluate the presence of constituents of concern in the groundwater above relevant laboratory detection limits and/or regulatory limits associated with historical O&G operations at the sites.

Terracon recommends the continued monitoring of all sites currently enrolled in the City of Longmont Annual Groundwater Quality Monitoring Event on an annual basis with the exception of the wells discussed in the following paragraph. The continued monitoring of the sites will work to augment the existing data set. This information will be used to further assess the extent of groundwater impacts present, track trends in the groundwater quality, and to evaluate if sites shall be added or removed from the annual sampling list.

The City of Longmont approved Terracon's recommendation to properly abandon monitoring wells SH2-MW03 and SGU-MW07, at the Sherwood #2 and Serafini Gas Unit sites, respectively, which have been destroyed and/or filled in with sediment and are no longer able to be sampled for groundwater. Terracon completed the well abandonment activities on December 19, 2024.

1.0 Introduction

This project consists of sampling monitoring wells associated with seventeen PA O&G well sites and one former tank battery site located in the City of Longmont, Colorado, (City). The 2024 monitoring event analyzed potential impacts to groundwater, in accordance with Terracon Proposal No. P22237009, dated May 4, 2023, at the following sites:

- Domenico #1: DM1-MW01, DM1-MW02, and DM1-MW03;
- Evans #6 Tank Battery: E6T-MW01, E6T-MW-02, and E6T-MW03;
- Evans #6 Wellhead: E6W-MW-01, E6W-MW02, and E6W-MW03;
- Stamp #1 & Stamp 31-2C: ST1-MW02, ST1-MW-03, ST1-MW05, S31-MW-01, S31-MW-02, S31-MW-03, S31-MW-04, S31-MW-05, and S31-MW-06.
- City of Longmont #1: CL1-MW01, CL1-MW02, and CL1-MW03;
- Powell #1: PL1-MW01, PL1-MW02, and PL1-MW03R;
- Sherwood #1: SH1-MW01, SH1-MW02, and SH1-MW03;
- Sherwood #2: SH2-MW01 and SH2-MW02*;
- Tabor #1: TB1-MW01, TB1-MW02, and TB1-MW03R;
- Tabor #7: TB7-MW01, TB7-MW02, and TB7-MW03;
- Longmont 8-10K: LM8-MW01, LM8-MW02, and LM8-MW03;
- Rider #1 Well Site: RD1-MW-01, RD1-MW02, and RD1-MW03;
- Maruyama #1: MY1-MW01, MY1-MW02, and MY1-MW03;
- George Mayeda #1: GM1-MW01, GM1-MW02, and GM1-MW03;
- Mary #2: MR2-MW01, MR2-MW02, and MR2-MW03;
- Wertman #1: WT1-MW01, WT1-MW02, and WT1-MW03; and
- Serafini Gas Unit: SGU-MW01, SGU-MW02, SGU-MW03, and SGU-MW-06*

*Monitoring wells SH2-MW03 at the Sherwood #2 site and SGU-MW07 at the Serafini Gas Unit site were not sampled during this annual groundwater sampling event due to both monitoring wells being destroyed and/or filled in with sediment.

2.0 Scope of Services

The 2024 annual groundwater quality monitoring services described below were performed on May 8-9, June 12-14, June 17-18, and November 6-7 as a modification to the sampling strategy outlined in the Sampling and Analysis Plan (SAP) prepared and issued by Terracon on February 1, 2013. Based on the initial groundwater sampling results reported in 2013, the sampling frequency and laboratory analyte list have been modified. In addition,

Terracon completed monitoring well abandonment activities on December 19, 2024, at the Serafini Gas Unit site.

2.1 Standard of Care

Terracon'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. Terracon makes no warranties, express or implied, regarding the findings, conclusions, or recommendations. Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These investigation services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not intended to be in strict conformance with ASTM E1903-19.

2.2 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, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this sampling event. Subsurface conditions may vary from those encountered at specific 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.

2.3 Reliance

This report has been prepared for the exclusive use of the City of Longmont, 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 City of Longmont and Terracon. Any unauthorized distribution or reuse is at the City of Longmont's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, Investigation report, and Terracon's Master Services Agreement (MSA) with the City of Longmont. The limitation of liability defined in the terms and conditions of the MSA is the aggregate limit of Terracon's liability to the City of Longmont and all relying parties unless otherwise agreed in writing.

3.0 Field Investigation

3.1 Safety

Terracon is committed to the safety of all its employees. As such, and in accordance with our Incident and Injury Free® safety goals, Terracon conducted the fieldwork under a site-specific health and safety plan. The plan identified site-specific job hazards and proper pre-task planning procedures. Work was performed using Occupational Safety & Health Administration (OSHA) Level D work attire consisting of hard hats, high-visibility attire, safety glasses, protective gloves, and protective boots.

3.2 Sampling and Analytical Program Summary

Terracon sampled a total of 57 groundwater monitoring wells for the parameters listed in the table below.

Parameters	Analytical Method
Volatile Organic Compounds (VOCs)	EPA Method 8260
Dissolved Gases: Methane, Ethane, and Ethylene	RSK 175
Dissolved Gases: Carbon Dioxide	4500CO2 D22011
Chloride	EPA Method 300.0
Sulfate	EPA Method 300.0
Total Dissolved Solids (TDS)	SM 2320B

EPA = Environmental Protection Agency; SW-846 analytical methods; SM = Standard Methods

Additionally, temperature, pH, specific conductance, dissolved oxygen, and oxidation reduction potential (ORP) measurements were collected in the field during groundwater sampling. Specific conductance and pH measurements are summarized on Table 2 in Appendix A of this report.

3.3 Field Procedures

Terracon used hand bailing sampling techniques with a disposable bailer to purge and obtain a representative groundwater sample from the monitoring wells. The monitoring wells were sampled in accordance with the SAP dated February 1, 2013. After bailing a minimum of three well volumes, a groundwater sample was collected from each of the monitoring wells. The groundwater samples were placed in laboratory provided, pre-cleaned containers and stored in a cooler with ice during delivery to the laboratory. The samples were submitted under chain-of-custody protocol and analyzed for the parameters summarized in Section 3.2 on a standard turn-around time and according to the appropriate United States Environmental Protection Agency (USEPA) analytical methods.

The groundwater sample naming convention used is as follows:

- [Site Abbreviation]-[Well Designation].
- Example: "SH2-MW01" is the groundwater sample collected from Sherwood #2 well site, monitoring well MW01.

The groundwater samples were submitted to Pace Analytical (Pace) in Mount Juliet, Tennessee. The laboratories performed Quality Analysis/Quality Control (QA/QC) during the analysis process of the groundwater samples. The QA/QC process involved completing a method blank, laboratory control sample, matrix spike, matrix spike duplicate, and a sample duplicate to test the accuracy and calibration of the laboratory equipment and processes.

3.4 Monitoring Well Abandonment

Terracon completed monitoring well abandonment activities as outlined in the change order, dated November 7, 2024. The monitoring well SGU-MW07 located at the Serafini Gas Unit site was abandoned on December 19, 2024. The well was abandoned by placing hydrated bentonite and concrete within the well casing to the surface; the steel flush mount lid was removed, and the flush mount vault was filled with concrete to the existing grade surface. The monitoring well SH2-MW-03 was previously observed to be destroyed and unable to be properly abandoned.

4.0 Field Investigation Results

4.1 Hydrogeology

Depth to groundwater and groundwater elevation data measured in May, June, and November 2024 were used to generate potentiometric surface maps and estimated groundwater flow direction. Potentiometric surface maps are only available at sites where sufficient wellhead survey information is available. The potentiometric surface maps and

groundwater elevation data are included in Appendix A as site-specific Exhibits and Table 1, respectively. The well site groundwater flow directions are as follows:

- Domenico #1: north-northeast;
- Evans #6 Tank Battery: southwest;
- Evans #6 Wellhead: south;
- Stamp #1 & Stamp 31-2C: southeast;
- City of Longmont #1: northeast;
- Powell #1: northeast;
- Sherwood #1: northeast;
- Sherwood #2: assumed northeast, towards St. Vrain Creek;
- Tabor #1: north-northeast;
- Tabor #7: north-northwest;
- Longmont 8-10K: north;
- Rider #1: assumed east, towards Union Reservoir;
- Maruyama #1: north-northwest;
- George Mayeda #1: east-northeast;
- Mary #2: northeast;
- Wertman #1: east-northeast; and
- Serafini Gas Unit: northeast.

5.0 Laboratory Analytical Results

The laboratory analytical reports and chain-of-custody records are included in Appendix B. The following sections summarize the results of the analytical testing.

Laboratory analytical results for the groundwater samples were compared to the groundwater standard applicable to O&G well sites, CECMC Table 910-1 standards (May 1, 2018), and the CDPHE Regulation 41 Groundwater Quality Standards, December 30, 2016 (GWQS). A summary of constituent concentrations exceeding these standards in the groundwater samples is included in Table 2.

The groundwater analytical results for detected concentrations are discussed in the following sections. Groundwater analytical data and corresponding action levels are summarized in Table 2 (Appendix A).

5.1 Organic Compounds

Dissolved ethane and ethene were not detected above their respective laboratory reporting limit in the groundwater samples collected. Carbon dioxide was reported at a concentration above laboratory reporting limits in groundwater samples collected from multiple sites during this annual sampling event. Neither the CDPHE nor the CECMC has set a regulatory standard for these organic compounds in groundwater, but the reported concentrations are observed to be relatively low and are not considered to be indicative of an environmental concern.

Dissolved methane was reported at the Domenico #1 Wellsite in samples DM1-MW01 and DM-MW02 at concentrations of 0.0829 and 0.101 mg/L, respectively. Dissolved methane was also reported at the Stamp 31-2C wellsite in sample S31-MW05 at a concentration of 0.0130 mg/L. Dissolved methane in groundwater may be an indication of a release at an O&G production well site. Neither the CECMC nor the CDPHE have developed standards for methane in groundwater. The CECMC has developed standards for source water (e.g., water wells) in the Greater Wattenberg Area (GWA), which includes the project area. Water wells that are registered with Colorado Division of Water Resources (DWR) include household, domestic, livestock, irrigation, municipal/public, commercial, and permitted or adjudicate springs. Section 318A.f.(8) of the CECMC Rules and Regulations for baseline sampling of water wells in the GWA states that concentrations of methane greater than 1.0 mg/L require a gas compositional and stable isotope analysis of the methane to determine the source of the methane (e.g. thermogenic, biogenic or a mixture of the two). In accordance with the CECMC Rules and Regulations, the reported methane concentrations do not require additional analyses of groundwater to be performed.

5.2 Inorganics in Groundwater

Inorganic cations and anions present in groundwater can be secondary indicators of well site releases associated with produced water. The CECMC has defined the groundwater standard exceedance concentrations for chloride and sulfate to be a regional background concentration with a multiplier of 1.25. Terracon was able to determine regional background concentration levels for chloride and sulfate by comparing current concentrations to data from previous years' monitoring events. Terracon utilized analytical data from the current and previous annual sampling events (as far back as 2013 at some sites) from each of the sites and has determined that the reported concentrations of chloride and sulfate for the 2024 sampling event are within their respective regional background concentrations. Chloride and sulfate concentrations measured at each site are comparable in magnitude with that of previous values and therefore have been determined to exist at elevated concentrations above CECMC and CDPHE regulatory limits, but within the regional background levels.

Concentrations of sulfates and chlorides were reported above their respective laboratory analytical reporting limits in groundwater samples collected from monitoring wells at each

site sampled during this monitoring event. Please refer to the groundwater analytical results in Table 2 included in this report for a detailed overview of regulatory exceedances. A brief summary of the analytical results is included below.

Sulfate concentrations were reported above CDPHE limits, but below the CECMC limits in groundwater samples collected from monitoring wells at the City of Longmont #1, Serafini Gas Unit, George Mayeda #1, Maruyama #1, Tabor #7, and Rider #1 well sites. Sulfate concentrations were reported above CECMC and CDPHE limits, but within regional background levels in groundwater samples collected from monitoring wells at the Sherwood #1, Sherwood #2, Powell #1, Evans #6 Wellhead, Evans #6 Tank Battery, Longmont 8-10K, Domenico #1, Stamp #1, Stamp 31-2C, George Mayeda #1, Tabor #1, and Mary #2 well sites.

Chloride concentrations were reported above CECMC limits but below CDPHE limits in groundwater samples collected from monitoring wells at the Sherwood #1, Sherwood #2, City of Longmont #1, Serafini Gas Unit, Powell #1, Evans #6 Tank Battery, Domenico #1, Stamp #1, Stamp 31-2C, Tabor #1, Tabor #7, and Mary #2 well sites. Chloride concentrations were reported above CECMC and CDPHE limits, but within regional background levels in groundwater samples collected from monitoring wells at the Tabor #1, Stamp #1, and Stamp 31-2C well sites.

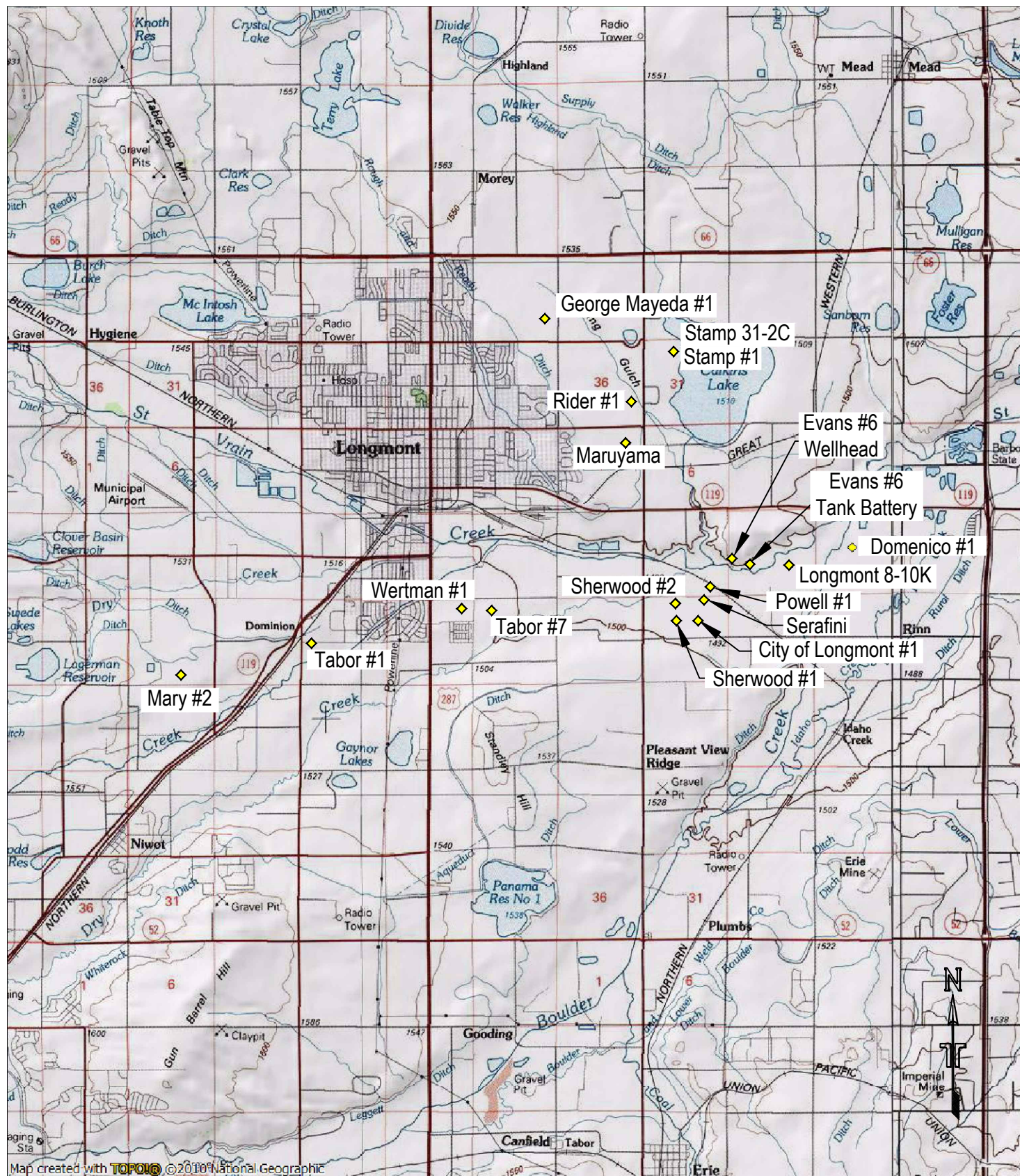
Appendix A – Exhibits & Tables

Exhibit 1 – Wellsite Locations Map

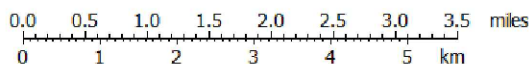
Exhibit 2 to 18 – Site and Potentiometric Surface Diagrams

Table 1 – Groundwater Elevation Data

Table 2 – Groundwater Analytical Results



Map created with **TOPOIG** © 2010 National Geographic



08/13/19



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Topographic and Site Location Map City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 1

DESIGNED BY:	JAS
DRAWN BY:	JAS
APPVD. BY:	CLR
SCALE:	AS SHOWN
DATE:	8/9/2024
JOB NO.	2237009
ACAD NO.	001
SHEET NO.:	1 OF 19



LEGEND



— Approximate Location of Groundwater Monitoring Wells

4851.2

— Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, June 13, 2024



— Approximate Groundwater Flow Direction, June 13, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

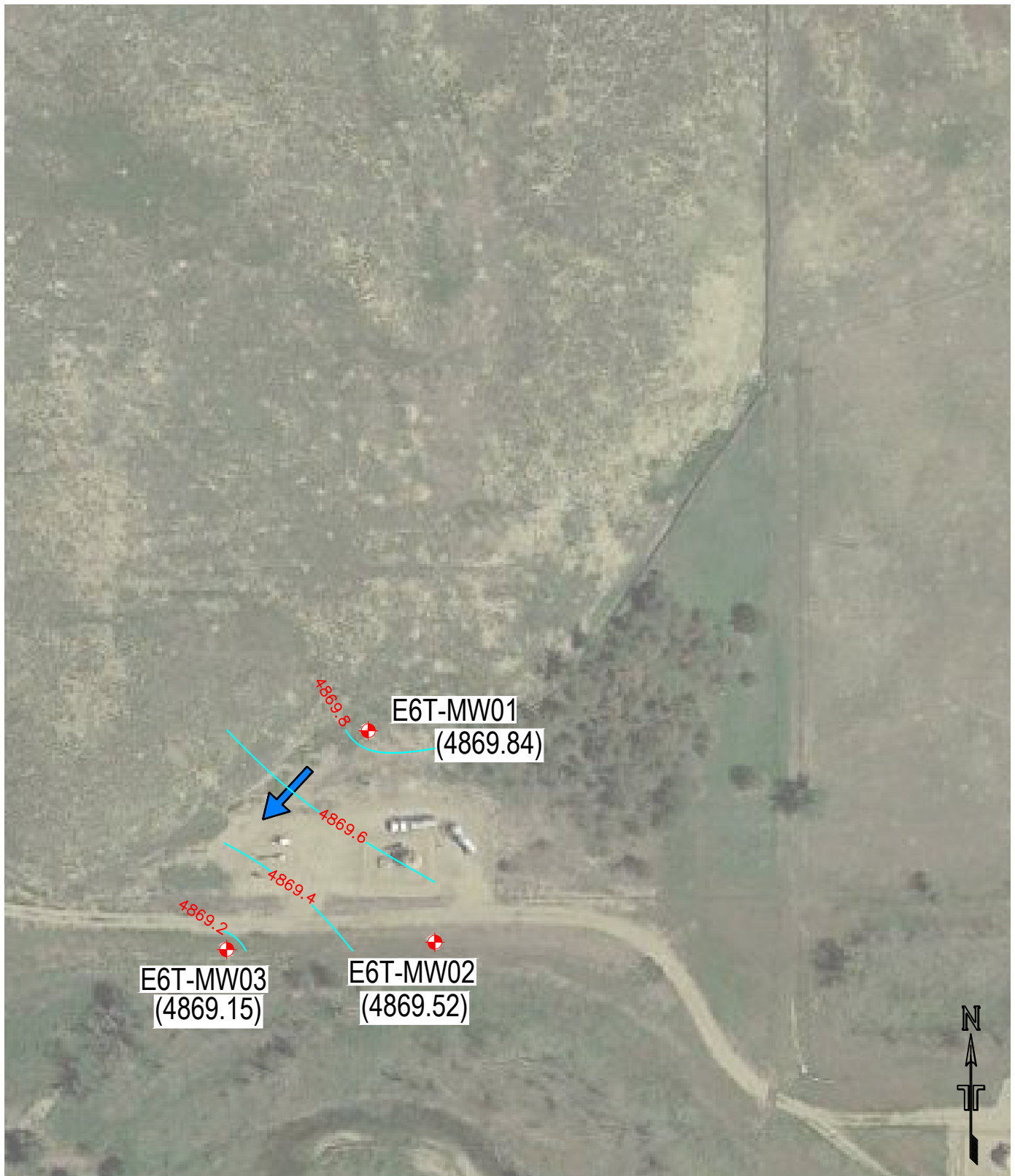
Site and Piezometric Surface Diagram - Domenico #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 2

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	002
SHEET NO.:	2 OF 19



LEGEND



- Approximate Location of Groundwater Monitoring Wells



- Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, June 12, 2024
- Approximate Groundwater Flow Direction, June 12, 2024

0' 100'
Approximate Scale



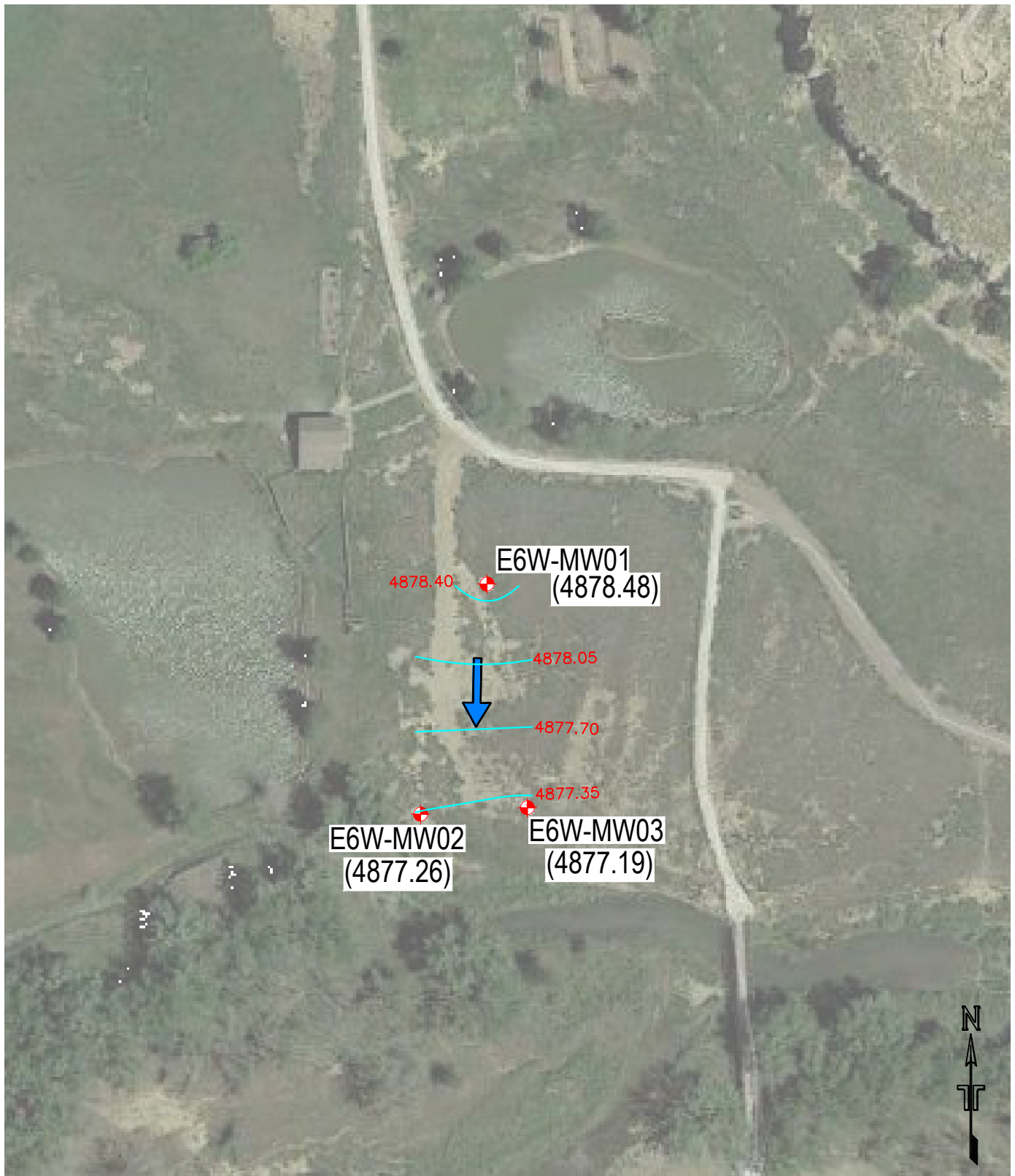
1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site and Piezometric Surface Diagram - Evans #6 Tank Battery
City of Longmont Oil and Gas Well Sites
Longmont
Colorado

Exhibit 3

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	003
SHEET NO.:	3 OF 19



LEGEND



— Approximate Location of Groundwater Monitoring Wells

4851.2

— Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, June 13, 2024



— Approximate Groundwater Flow Direction, June 13, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

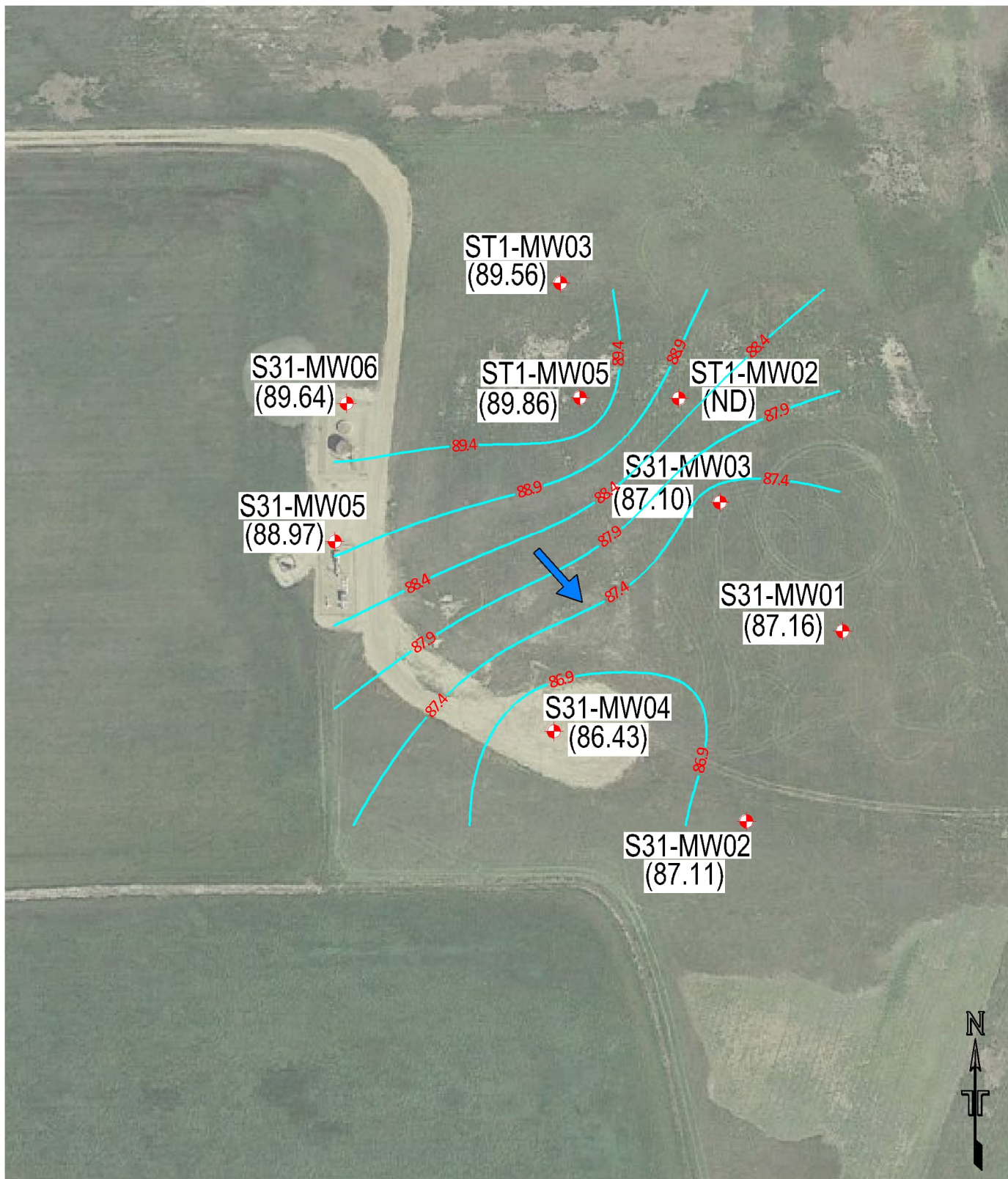
Site and Piezometric Surface Diagram - Evans #6 Wellhead

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 4

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	004
SHEET NO.:	4 OF 19



LEGEND



— Approximate Location of Groundwater Monitoring Wells

88.2



— Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, November 6, 2024

— Approximate Groundwater Flow Direction, November 6, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

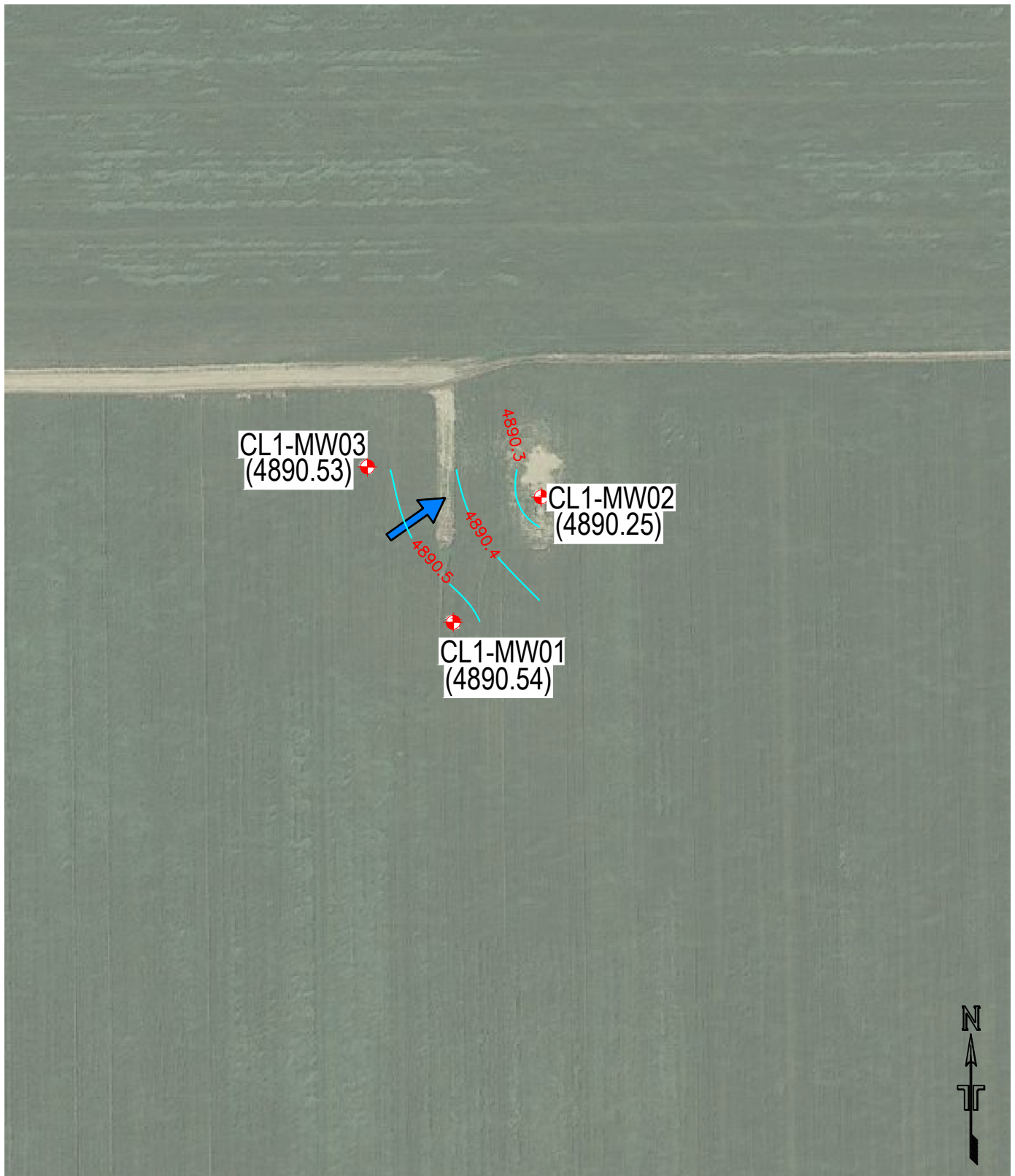
Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site and Piezometric Surface Diagram - Stamp 1 & 31-2C City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 5

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD. BY:	CLR
SCALE:	AS SHOWN
DATE:	12/6/2024
JOB NO.	22237009
ACAD NO.	05
SHEET NO.:	5 OF 18



LEGEND



- Approximate Location of Groundwater Monitoring Wells

4851.2

- Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, May 9, 2024



- Approximate Groundwater Flow Direction, May 9, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

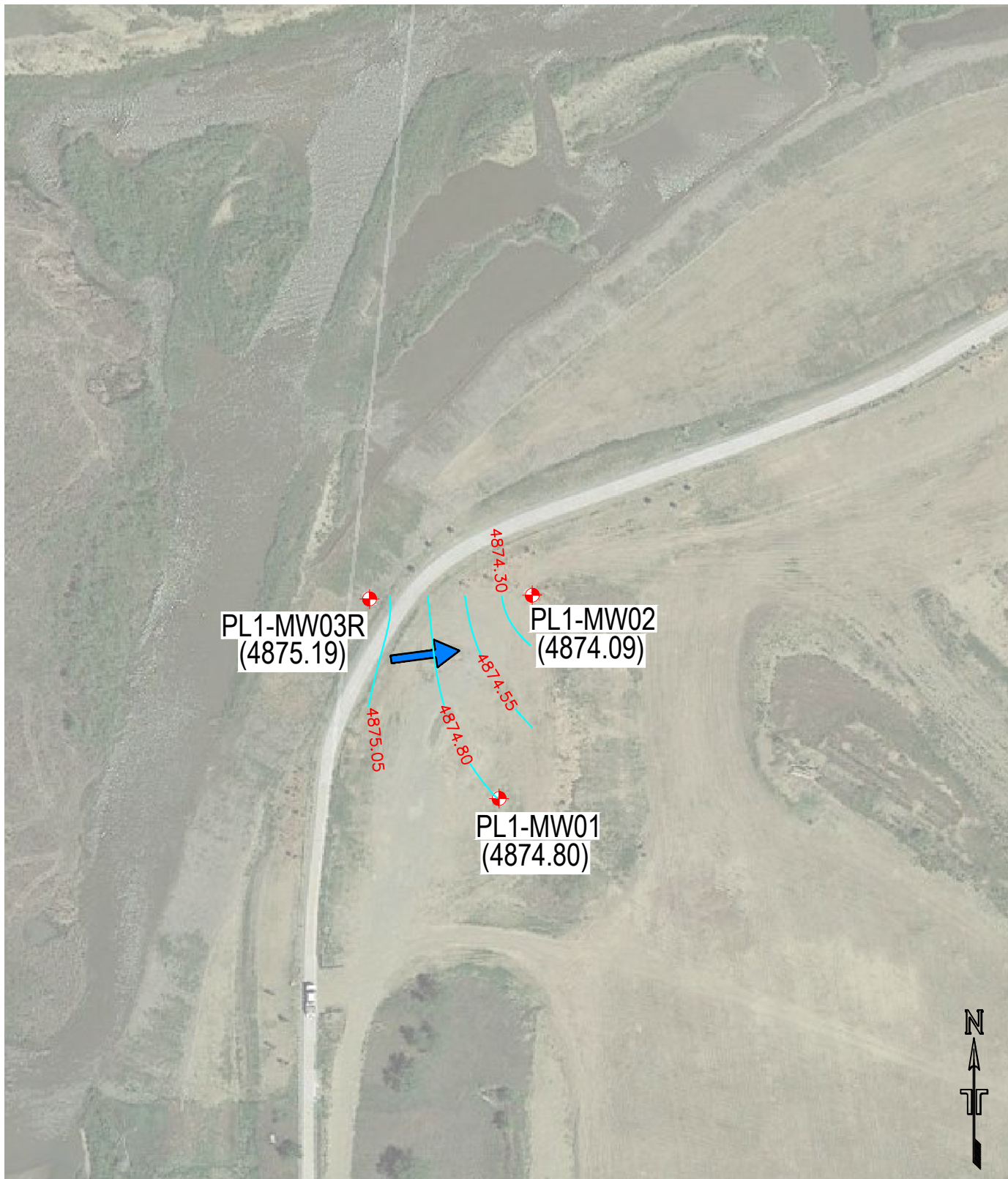
Site and Piezometric Surface Diagram - City of Longmont #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 6

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD. BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	006
SHEET NO.:	6 OF 19



LEGEND



— Approximate Location of Groundwater Monitoring Wells

4851.2

— Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, June 13, 2024



— Approximate Groundwater Flow Direction, June 13, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

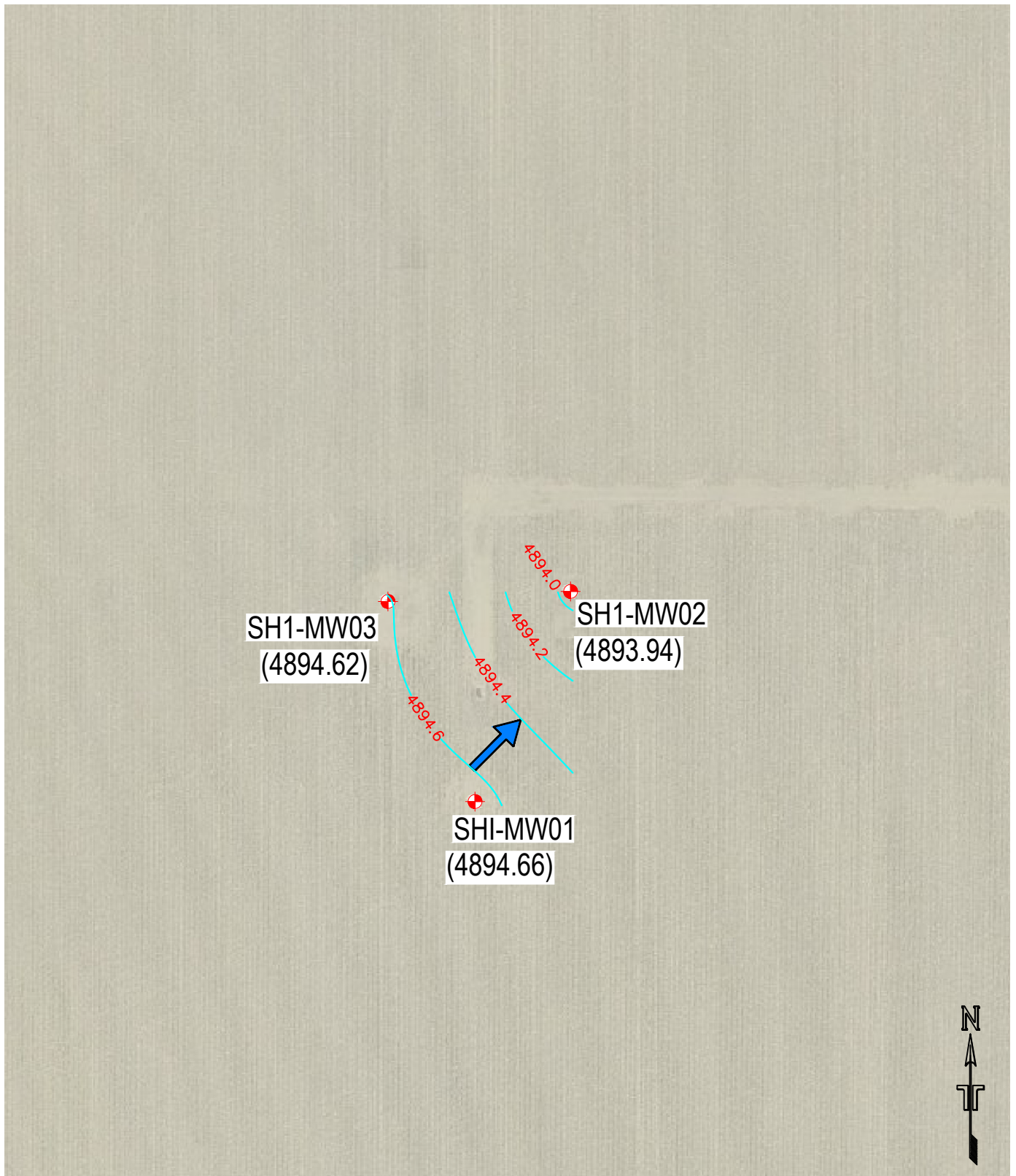
Site and Piezometric Surface Diagram - Powell #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 7

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD. BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	007
SHEET NO.:	7 OF 19



LEGEND



— Approximate Location of
Groundwater Monitoring Wells

4851.2

— Approximate Groundwater Elevation
(feet above mean sea level) Contours
Reported, May 8, 2024



— Approximate Groundwater Flow
Direction, May 8, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

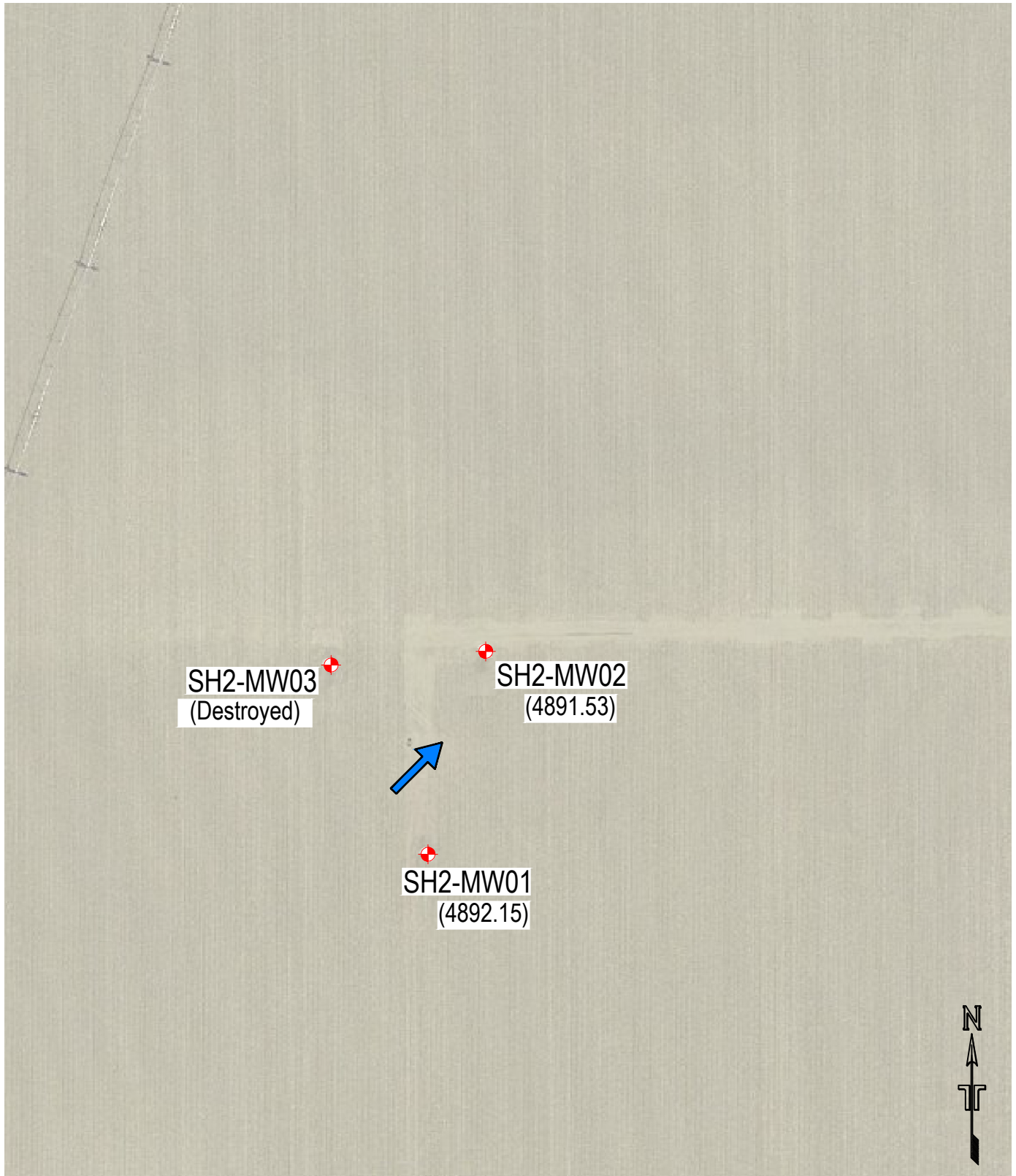
Site and Piezometric Surface Diagram - Sherwood #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 8

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPROVED BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	20237008
ACAD NO.	008
SHEET NO.:	8 OF 19



LEGEND

 — Approximate Location of Groundwater Monitoring Wells

— Approximate Groundwater Elevation
 (feet above mean sea level),
 May 8, 2024

 — Approximate Groundwater Flow
 Direction, May 8, 2024

0' 100'
 Approximate Scale



1901 Sharp Point Drive, Suite C
 PH. (970) 484-0359

Fort Collins, Colorado 80525
 FAX. (970) 484-0454

Site Diagram - Sherwood #2
 City of Longmont Oil and Gas Well Sites
 Longmont
 Colorado

Exhibit 9

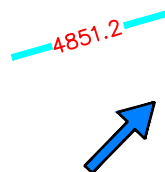
DESIGNED BY:	JAS
DRAWN BY:	JAS
APPROVED BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	009
SHEET NO.:	9 OF 19



LEGEND



- Approximate Location of Groundwater Monitoring Wells



- Approximate Groundwater Elevation (relative elevation) Contours Reported, June 14, 2024



- Approximate Groundwater Flow Direction, June 14, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site Diagram and Piezometric Surface Diagram - Tabor #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 10

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	010
SHEET NO.:	10 OF 19



LEGEND



- Approximate Location of Groundwater Monitoring Wells

86.6
86.9
87.2
87.5

- Approximate Groundwater Elevation (relative elevation) Contours Reported, June 14, 2024



- Approximate Groundwater Flow Direction, June 14, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

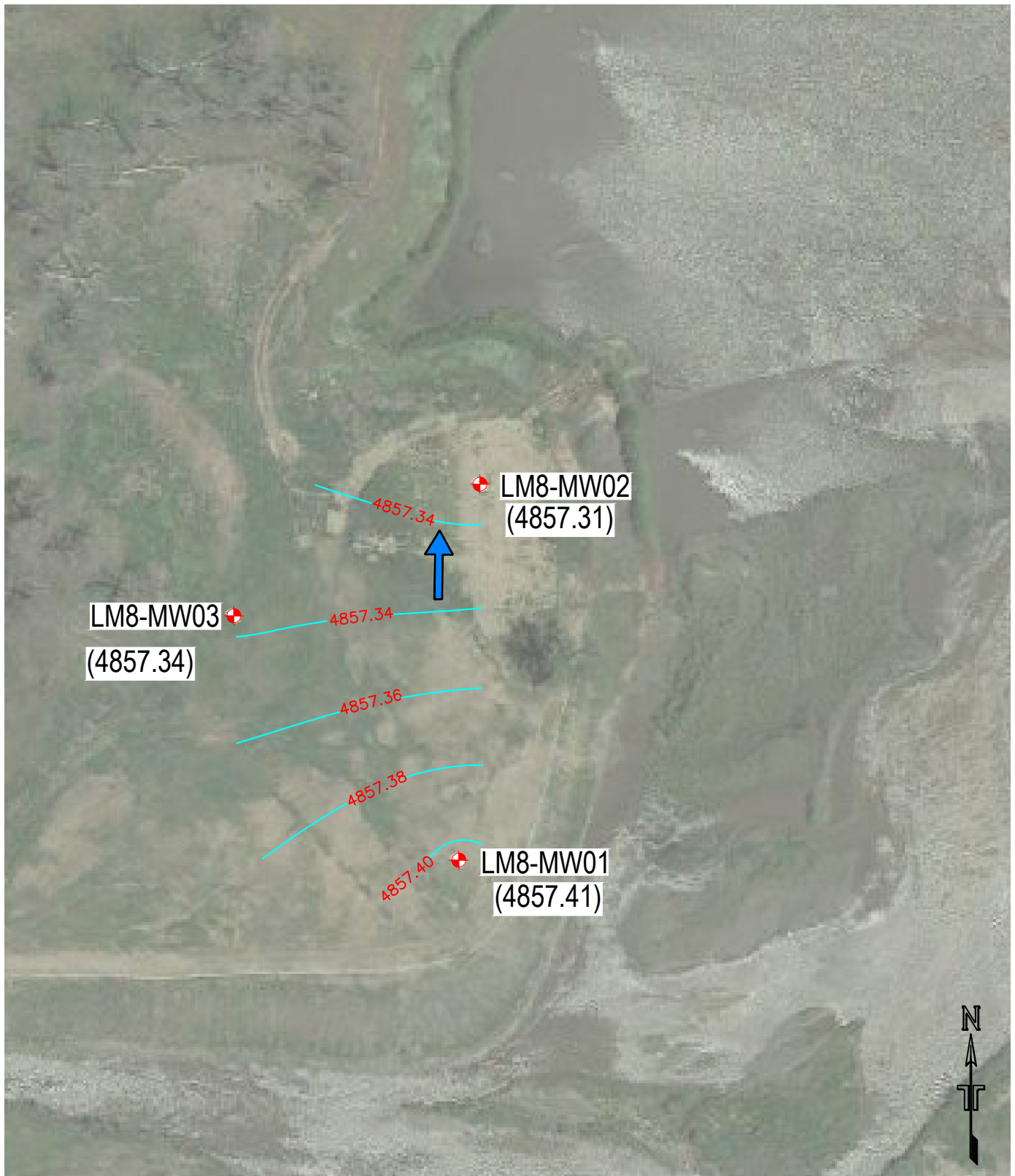
Site Diagram and Piezometric Surface Diagram - Tabor #7

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 11

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	011
SHEET NO.:	11 OF 19



LEGEND



- Approximate Location of Groundwater Monitoring Wells



- Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, June 12, 2024

- Approximate Groundwater Flow Direction, June 12, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

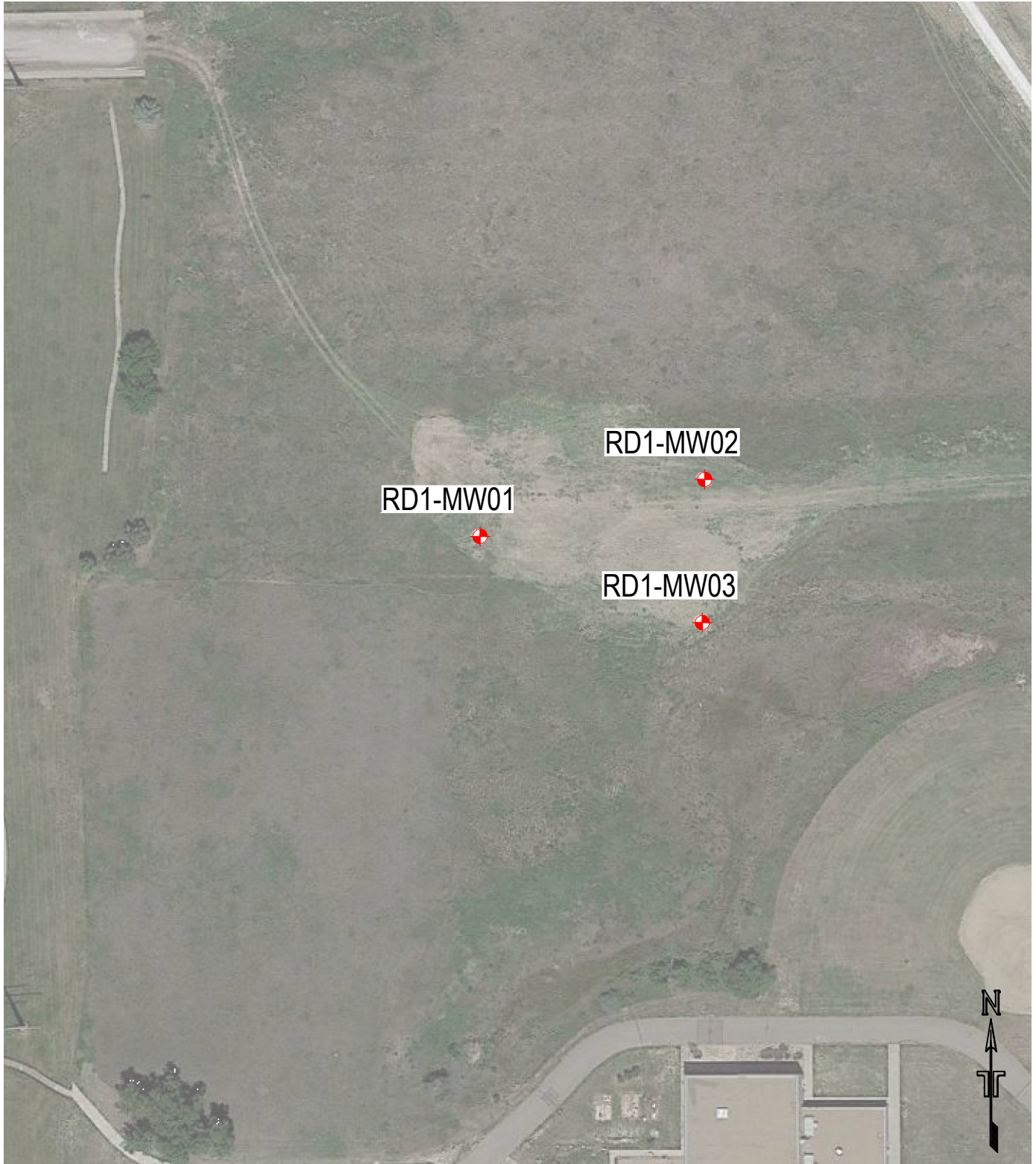
Site and Piezometric Surface Diagram - Longmont 8-10K

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 12

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/24
JOB NO.	22237009
ACAD NO.	012
SHEET NO.:	12 OF 19



LEGEND



— Approximate Location of
Groundwater Monitoring Wells

0' 100'
Approximate Scale



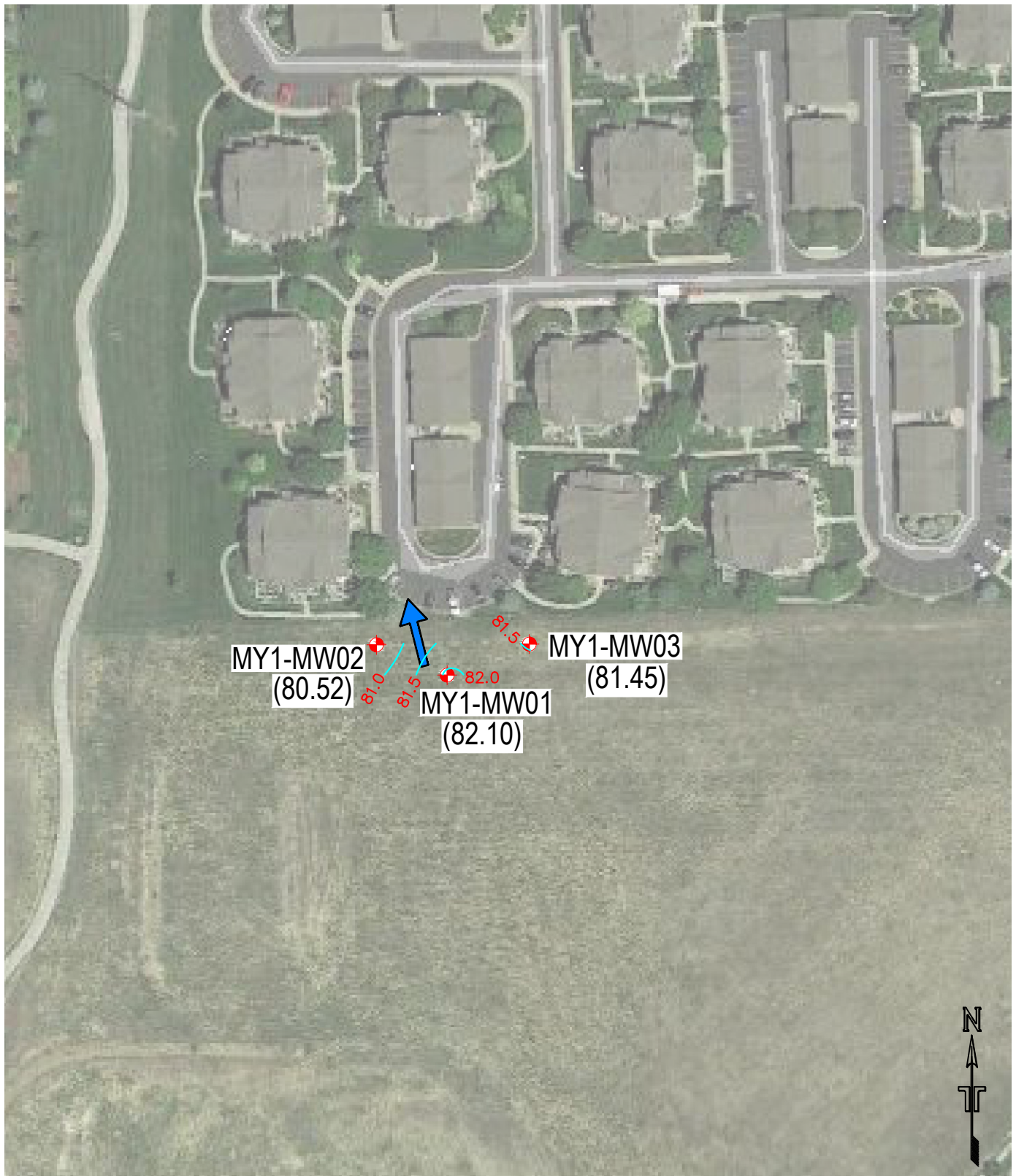
1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site Diagram - Rider #1
City of Longmont Oil and Gas Well Sites
Longmont
Colorado

Exhibit 13

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD. BY:	CLR
SCALE:	AS SHOWN
DATE:	7/25/24
JOB NO.	22237009
ACAD NO.	013
SHEET NO.:	13 OF 19



LEGEND



- Approximate Location of Groundwater Monitoring Wells

81.5



- Approximate Groundwater Elevation (relative elevation) Contours Reported, June 17, 2024

- Approximate Grounwater Flow Direction, June 17, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site Diagram and Piezometric Surface Diagram - Maruyama #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 14

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD. BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/24
JOB NO.	22237009
ACAD NO.	014
SHEET NO.:	14 OF 19



LEGEND



— Approximate Location of Groundwater Monitoring Wells

8851.2



— Approximate Groundwater Elevation (relative elevation) Contours Reported, June 18, 2024

— Approximate Groundwater Flow Direction, June 18, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site Diagram and Piezometric Surface Diagram - George Mayeda #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 15

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/24
JOB NO.	22237009
ACAD NO.	015
SHEET NO.:	15 OF 19



LEGEND



— Approximate Location of Groundwater Monitoring Wells

86.00

— Approximate Groundwater Elevation (relative elevation) Contours Reported, June 14, 2024



— Approximate Groundwater Flow Direction, June 14, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site and Piezometric Surface Diagram - Mary #2 City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 16

DESIGNED BY:	JAS
DRAWN BY:	JAS
APPVD. BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	016
SHEET NO.:	16 OF 19



LEGEND



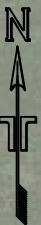
- Approximate Location of Groundwater Monitoring Wells

89.0 89.5 90.0

- Approximate Groundwater Elevation (relative elevation) Contours Reported, June 18, 2024



- Approximate Groundwater Flow Direction, June 18, 2024



0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site Diagram and Piezometric Surface Diagram - Wertman #1

City of Longmont Oil and Gas Well Sites

Longmont
Colorado

Exhibit 17

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/2024
JOB NO.	22237009
ACAD NO.	017
SHEET NO.:	17 OF 19



LEGEND



- Approximate Location of Groundwater Monitoring Wells

4851.2

- Approximate Groundwater Elevation (feet above mean sea level) Contours Reported, May 8, 2024



- Approximate Groundwater Flow Direction, May 8, 2024

0' 100'
Approximate Scale



1901 Sharp Point Drive, Suite C
PH. (970) 484-0359

Fort Collins, Colorado 80525
FAX. (970) 484-0454

Site and Piezometric Surface Diagram - Serafini Gas Unit City of Longmont Oil and Gas Well Sites Longmont Colorado

Exhibit 18

DESIGNED BY:	JAS
DRAWN BY:	VLV
APPVD BY:	CLR
SCALE:	AS SHOWN
DATE:	7/23/24
JOB NO.	22237009
ACAD NO.	018
SHEET NO.:	18 OF 19

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³
Sherwood #1 Wellhead							
SH1-MW01	4902.75	40.1405854°	-105.0484786°	3/18/2013	13.96	8.49	4894.26
				10/23/2013		6.70	4896.05
				7/28/2014		NR	
				3/30/2015		8.11	4894.64
				6/21/2016		NR	
				5/23/2017		NR	
				6/27/2018		7.42	4895.33
				6/10/2019		9.22	4893.53
				5/29/2020		8.62	4894.13
				12/14/2021		8.75	4894.00
				4/5/2022		9.05	4893.70
				4/11/2023		8.77	4893.98
				5/8/2024		8.09	4894.66
				SH1-MW02		4900.99	40.1409963°
10/23/2013	6.30	4894.69					
7/28/2014	NR						
3/30/2015	7.23	4893.76					
6/21/2016	6.87	4894.12					
5/23/2017	6.88	4894.11					
6/27/2018	6.80	4894.19					
6/10/2019	7.95	4893.04					
5/29/2020	7.42	4893.57					
12/14/2021	7.60	4893.39					
4/5/2022	7.80	4893.19					
4/11/2023	7.59	4893.40					
5/8/2024	7.05	4893.94					
SH1-MW03	4901.80	40.1409785°	-105.0486985°		3/18/2013		
				10/23/2013	6.33	4895.47	
				7/28/2014	NR		
				3/30/2015	7.35	4894.45	
				6/21/2016	NR		
				5/23/2017	NR		
				6/27/2018	7.00	4894.80	
				6/10/2019	8.10	4893.70	
				5/29/2020	7.66	4894.14	
				12/14/2021	7.81	4893.99	
				4/5/2022	8.00	4893.80	
				4/11/2023	7.75	4894.05	
				5/8/2024	7.18	4894.62	
				Sherwood #2 Wellhead			
SH2-MW01	4896.76	40.1433898°	-105.0484036°	3/18/2013	10.80	5.20	4891.56
				7/28/2014		NR	
				3/30/2015		4.59	4892.17
				6/21/2016		5.04	4891.72
				5/23/2017		4.33	4892.43
				6/27/2018		4.53	4892.23
				6/17/2019		5.32	4891.44
				6/5/2020		5.12	4891.64
				12/14/2021		5.45	4891.31
				4/5/2022		5.26	4891.50
				4/11/2023		5.17	4891.59
				5/8/2024		4.61	4892.15
SH2-MW02	4896.15	40.1437863°	-105.0482539°	3/18/2013	12.37	5.71	4890.44
				7/28/2014		NR	
				3/30/2015		4.96	4891.19
				6/21/2016		4.95	4891.20
				5/23/2017		4.34	4891.81
				6/27/2018		4.45	4891.70
				6/17/2018		5.30	4890.85
				6/5/2020		4.95	4891.20
				12/14/2021		5.35	4890.80
				4/5/2022		5.25	4890.90
				4/11/2023		5.10	4891.05
				5/8/2024		4.62	4891.53
SH2-MW03	4896.32	40.1437612°	-105.0486483°	3/18/2013	9.71	5.11	4891.21
				7/28/2014		NR	
				3/30/2015		4.59	4891.73
				6/21/2016		4.61	4891.71
				5/23/2017		3.80	4892.52
				6/27/2018		3.50	4892.82
				6/17/2019		5.00	4891.32
				6/5/2020		4.60	4891.72
				12/14/2021		Sediment ^b	
				4/5/2022		Sediment ^b	
				4/11/2023		Destroyed	
				5/8/2024		Destroyed	

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³
City of Longmont #1 Wellhead							
CL1-MW01	4896.99	40.1406952°	-105.0437071°	3/20/2013	13.34	6.42	4890.57
				7/28/2014		NR	
				3/30/2015		6.41	4890.58
				6/21/2016		3.87	4893.12
				5/23/2017		NR	
				6/27/2018		4.60	4892.39
				6/17/2019		7.75	4889.24
				6/2/2020		4.69	4892.30
				6/15/2021		5.60	4891.39
				4/5/2022		7.60	4889.39
				4/12/2023		6.95	4890.04
				5/9/2024		6.45	4890.54
CL1-MW02	4896.04	40.1409398°	-105.0434809°	3/20/2013	12.86	5.75	4890.29
				7/28/2014		NR	
				3/30/2015		5.79	4890.25
				6/22/2016		1.80	4894.24
				5/23/2017		5.35	4890.69
				6/27/2018		3.49	4892.55
				6/17/2018		7.15	4888.89
				6/2/2020		3.22	4892.82
				6/15/2021		4.45	4891.59
				4/5/2022		6.95	4889.09
				4/12/2023		6.30	4889.74
				5/9/2024		5.79	4890.25
CL1-MW03	4896.33	40.1410006°	-105.0439239°	3/20/2013	13.10	5.86	4890.47
				7/28/2014		NR	
				3/30/2015		5.86	4890.47
				6/21/2016		3.22	4893.11
				5/23/2017		5.34	4890.99
				6/27/2018		4.06	4892.27
				6/17/2019		7.18	4889.15
				6/2/2020		3.55	4892.78
				6/15/2021		3.50	4892.83
				4/5/2022		6.95	4889.38
				4/12/2023		6.35	4889.98
				5/9/2024		5.80	4890.53

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³
Serafini Gas Unit							
SGU-MW01	4892.37	40.1432976°	-105.0407583°	3/20/2013	12.90	5.52	4886.85
				10/22/2013		3.49	4888.88
				3/30/2015		5.86	4886.51
				6/21/2016		3.68	4888.69
				5/23/2017		5.70	4886.67
				6/10/2020		6.84	4885.53
				6/28/2018		3.65	4888.72
				6/21/2021		7.50	4884.87
				4/6/2022		10.90	4881.47
				4/11/2023		9.99	4882.38
				5/8/2024		9.39	4882.98
SGU-MW02	4891.42	40.1438290°	-105.0404260°	3/21/2013	8.10	5.17	4886.25
				10/22/2013		3.45	4887.97
				3/30/2015		5.07	4886.35
				6/21/2016		4.24	4887.18
				5/23/2017		5.54	4885.88
				6/28/2018		3.65	4887.77
				6/10/2020		7.50	4883.92
				6/21/2021		7.10	4884.32
				4/6/2022		10.92	4880.50
				4/11/2023		10.02	4881.40
				5/8/2024		9.52	4881.90
SGU-MW03	4891.72	40.1438644°	-105.0408074°	3/21/2013	12.06	5.59	4886.13
				10/22/2013		3.59	4888.13
				3/30/2015		5.85	4885.87
				6/21/2016		3.52	4888.20
				5/23/2017		5.68	4886.04
				6/28/2018		3.60	4888.12
				6/10/2020		6.10	4885.62
				6/21/2021		6.60	4885.12
				4/6/2022		10.72	4881.00
				4/11/2023		9.88	4881.84
				5/8/2024		9.35	4882.37
SGU-MW04	4889.76	NA	NA	6/28/2018	9.41	3.10	4886.66
SGU-MW05	4891.69	NA	NA	6/28/2018	10.50	3.55	4888.14
SGU-MW06	4891.59	40.1436731	-105.0406159	6/10/2020	14.90	6.45	4885.14
				6/21/2021		7.00	4884.59
				4/6/2022		10.90	4880.69
				4/11/2023		10.02	4881.57
				5/8/2024		9.45	4882.14
SGU-MW07	No Survey	40.1442857	-105.0402305	6/10/2020	9.60	0.60	--
				6/21/2021		2.25	--
				4/6/2022		Sediment ⁶	
				4/11/2023		Sediment ⁶	
				5/8/2024		Sediment ⁶	

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³
Powell #1 Wellhead							
PL1-MW01	4885.90	40.1469898°	-105.0407663°	3/20/2013	17.79	11.91	4873.99
				7/28/2014		NR	
				3/31/2015		12.16	4873.74
				6/22/2016		10.64	4875.26
				5/23/2017		11.40	4874.50
				6/27/2018		11.68	4874.22
				6/10/2019		12.06	4873.84
				5/28/2020		12.31	4873.59
				6/15/2021		10.82	4875.08
				4/22/2022		12.65	4873.25
				6/20/2023		10.44	4875.46
				6/13/2024		11.1	4874.80
				PL1-MW02		4885.58	40.1473863°
7/28/2014	NR						
3/31/2015	12.52	4873.06					
6/22/2016	11.64	4873.94					
5/23/2017	11.15	4874.43					
6/27/2018	12.36	4873.22					
6/10/2019	12.42	4873.16					
5/28/2020	12.60	4872.98					
6/15/2021	11.66	4873.92					
4/22/2022	12.97	4872.61					
6/20/2023	10.90	4874.68					
6/13/2024	11.49	4874.09					
PL1-MW03R	4887.26	40.1473805°	-105.0410932°		3/19/2013		
				7/28/2014	NR		
				3/31/2015	Well Destroyed		
				6/22/2016	Well Destroyed		
				5/23/2017	Well Destroyed		
				6/27/2018	12.97	4874.29	
				6/10/2019	12.95	4874.31	
				5/28/2020	13.30	4873.96	
				6/15/2021	12.15	4875.11	
				4/22/2022	13.75	4873.51	
				6/20/2023	11.57	4875.69	
				6/13/2024	12.07	4875.19	
				Evans #6 Wellhead			
E6W-MW01	4882.37	40.1518357°	-105.0391414°	3/22/2013	9.33	4.50	4877.87
				10/23/2013		4.80	4877.57
				7/28/2014		4.85	4877.52
				3/31/2015		3.92	4878.45
				6/22/2016		4.24	4878.13
				5/25/2017		4.38	4877.99
				6/28/2018		3.83	4878.54
				6/6/2019		3.90	4878.47
				8/6/2020		3.61	4878.76
				6/17/2021		4.40	4877.97
				4/21/2022		4.95	4877.42
				6/19/2023		4.95	4877.42
				6/13/2024		3.89	4878.48
E6W-MW02	4882.45	40.1513853°	-105.0393141°	3/22/2013	12.46	5.19	4877.26
				10/23/2013		6.50	4875.95
				7/28/2014		5.80	4876.65
				3/31/2015		5.14	4877.31
				6/22/2016		5.55	4876.90
				5/25/2017		5.60	4876.85
				6/28/2018		5.45	4877.00
				6/6/2019		4.85	4877.60
				8/6/2020		4.66	4877.79
				6/17/2021		5.42	4877.03
				4/21/2022		5.70	4876.75
				6/19/2023		4.92	4877.53
				6/13/2024		5.19	4877.26
E6W-MW03	4881.53	40.1513969°	-105.0390412°	3/22/2013	10.89	4.41	4877.12
				10/23/2013		5.15	4876.38
				7/28/2014		4.95	4876.58
				3/31/2015		4.24	4877.29
				6/22/2016		4.74	4876.79
				5/25/2017		4.68	4876.85
				6/6/2019		4.05	4877.48
				8/6/2020		3.78	4877.75
				6/17/2021		4.45	4877.08
				4/21/2022		4.80	4876.73
				6/19/2023		4.05	4877.48
				6/13/2024		4.34	4877.19

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³					
Evans #6 Tank Battery												
E6T-MW01	4879.08	40.1511806°	-105.0327690°	3/22/2013	16.95	8.01	4871.07					
				10/23/2013		8.16	4870.92					
				7/28/2014		8.93	4870.15					
				3/31/2015		9.75	4869.33					
				6/22/2016		9.43	4869.65					
				5/25/2017		10.25	4868.83					
				6/28/2018		14.67	4864.41					
				6/6/2019		10.01	4869.07					
				6/4/2020		3.50	4875.58					
				6/17/2021		9.65	4869.43					
				4/21/2022		11.00	4868.08					
				6/19/2023		8.95	4870.13					
				6/12/2024		9.24	4869.84					
E6T-MW02	4877.68	40.1507653°	-105.0326016°	3/22/2013	12.84	6.40	4871.28					
				10/23/2013		7.47	4870.21					
				7/28/2014		8.54	4869.14					
				3/31/2015		8.84	4868.84					
				6/22/2016		8.55	4869.13					
				5/25/2017		7.92	4869.76					
				6/28/2018		12.87	4864.81					
				6/6/2019		7.96	4869.72					
				6/4/2020		4.66	4873.02					
				6/17/2021		8.50	4869.18					
				4/21/2022		8.65	4869.03					
				6/19/2023		7.15	4870.53					
				6/12/2024		8.16	4869.52					
E6T-MW03	4878.03	40.1507530°	-105.0331334°	3/22/2013	12.30	6.61	4871.42					
				10/23/2013		7.62	4870.41					
				7/28/2014		8.44	4869.59					
				3/31/2015		8.62	4869.41					
				6/22/2016		8.75	4869.28					
				5/25/2017		7.83	4870.20					
				6/28/2018		12.25	4865.78					
				6/6/2019		7.95	4870.08					
				6/4/2020		3.80	4874.23					
				6/17/2021		9.65	4868.38					
				4/21/2022		8.32	4869.71					
				6/19/2023		7.09	4870.94					
				6/12/2024		8.88	4869.15					
Longmont #8-10K Wellhead												
LM8-MW01	4868.80	40.1500618°	-105.0233275°	3/22/2013	18.60	3.64	4865.16					
				7/28/2014			NR					
				3/31/2015			Dry					
				6/22/2016			Dry					
				5/23/2017			NR					
				6/5/2019		11.18	4857.62					
				6/4/2020		9.66	4859.14					
				6/23/2021		10.92	4857.88					
				4/21/2022		12.02	4856.78					
				6/19/2023		10.37	4858.43					
				6/12/2024		11.39	4857.41					
				LM8-MW02		4869.03	40.1507983°	-105.0232684°	3/22/2013	18.90	4.32	4864.71
									7/28/2014			NR
3/31/2015		Dry										
6/22/2016		Dry										
5/23/2017		NR										
6/5/2019	11.30	4857.73										
6/4/2020	10.75	4858.28										
6/23/2021	11.11	4857.92										
4/21/2022	12.22	4856.81										
6/19/2023	10.58	4858.45										
6/12/2024	11.72	4857.31										
LM8-MW03	4869.11	40.1505429°	-105.0238986°		3/22/2013				18.70		3.21	4865.90
					7/28/2014							NR
				3/31/2015		Dry						
				6/22/2016		Dry						
				5/23/2017		NR						
				6/5/2019	11.38	4857.73						
				6/4/2020	10.90	4858.21						
				6/23/2021	11.20	4857.91						
				4/21/2022	12.28	4856.83						
				6/19/2023	10.83	4858.28						
				6/12/2024	11.77	4857.34						

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³
Domenico #1 Wellsite							
DM1-MW01	4857.64	40.1563660°	-105.0072562°	3/19/2013	11.44	7.41	4850.23
				7/29/2014		6.11	4851.53
				3/31/2015		6.33	4851.31
				6/24/2016		5.48	4852.16
				5/23/2017		5.52	4852.12
				6/29/2018		6.41	4851.23
				6/3/2019		6.82	4850.82
				6/8/2020		6.66	4850.98
				6/17/2021		6.10	4851.54
				4/22/2022		7.10	4850.54
				6/20/2023		4.81	4852.83
				6/13/2024		6.37	4851.27
DM1-MW02	4854.17	40.1569738°	-105.0076302°	3/19/2013	12.70	3.97	4850.20
				7/29/2014		3.18	4850.99
				4/1/2015		3.45	4850.72
				6/24/2016		2.34	4851.83
				5/23/2017		2.35	4851.82
				6/29/2018		3.33	4850.84
				6/3/2019		3.50	4850.67
				6/8/2020		3.40	4850.77
				6/17/2021		3.00	4851.17
				4/22/2022		4.00	4850.17
				6/20/2023		1.70	4852.47
				6/13/2024		2.96	4851.21
DM1-MW03	4855.27	40.1569902°	-105.0066703°	3/19/2013	12.82	5.15	4850.12
				7/29/2014		9.05	4846.22
				4/1/2015		3.99	4851.28
				6/24/2016		3.34	4851.93
				5/23/2017		3.50	4851.77
				6/29/2018		4.06	4851.21
				6/3/2019		3.61	4851.66
				6/8/2020		4.27	4851.00
				6/17/2021		3.78	4851.49
				4/22/2022		4.70	4850.57
				6/20/2023		2.68	4852.59
				6/13/2024		4.09	4851.18
Stamp 31-2C Wellsite							
S31-MW01	96.98	40.1866598°	-105.0474561°	3/7/2022	17.00	9.78	87.20
				8/3/2023		8.03	88.95
				11/6/2024		9.82	87.16
S31-MW02	96.83	40.1863289°	-105.0477224°	3/7/2022	17.00	10.45	86.38
				6/23/2023		7.34	89.49
				11/6/2024		9.72	87.11
S31-MW03	97.01	40.1869130°	-105.0477665°	3/7/2022	17.00	10.23	86.78
				8/3/2023		8.20	88.81
				11/6/2024		9.91	87.10
S31-MW04	96.98	40.1864589°	-105.0481857°	3/7/2022	16.00	11.50	85.48
				8/3/2023		9.27	87.71
				11/6/2024		10.55	86.43
S31-MW05	96.92	40.1868389°	-105.0487472°	3/7/2022	16.50	15.68	81.24
				6/23/2023		7.92	89.00
				11/6/2024		7.95	88.97
S31-MW06	97.32	40.1871096°	-105.0487147°	3/7/2022	16.00	9.48	87.84
				8/3/2023		16.08	81.24
				11/6/2024		7.68	89.64
Stamp #1 Wellsite							
ST1-MW02	97.11	40.1871008°	-105.0478149°	7/7/2021	15.00	4.12	92.99
				4/25/2022		7.90	89.21
				8/3/2023		5.95	91.16
				11/6/2024		NR	NR
ST1-MW03	97.2	40.1873639°	-105.0482608°	7/7/2021	15.40	3.40	93.80
				4/25/2022		7.48	89.72
				6/23/2023		4.50	92.70
				11/6/2024		7.64	89.56
ST1-MW05	97.23	40.1870845°	-105.048216°	7/7/2021	15.40	4.55	92.68
				4/25/2022		7.95	89.28
				8/3/2023		5.75	91.48
				11/6/2024		7.37	89.86
Rider #1 Wellsite							
RD1-MW01	No Survey Information Available	40.1790495°	-105.0588576°	4/27/2022	19.88	12.93	No Survey Information Available
6/28/2023				11.15			
6/18/2024				11.61			
RD1-MW02		40.1790903°	-105.0586019°	4/27/2022	20.25	12.32	
6/28/2023				10.54			
6/18/2024				11.04			
RD1-MW03		40.1789718°	-105.0586039°	4/27/2022	20.60	13.65	
				6/28/2023		11.86	
				6/18/2024		12.29	

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³
Tabor #1 Wellsite							
TB1-MW01	99.63	40.1374568°	-105.1284786°	5/16/2019	27.85	18.02	81.61
				6/3/2020		Not Located / Destroyed	
				6/16/2021		Not Located / Destroyed	
				4/19/2022	23.40	13.78	85.85
				6/27/2023		13.08	86.55
6/14/2024	13.41	86.22					
TB1-MW02	98.98	40.1376971°	-105.1286059°	5/16/2019	27.22	17.93	81.05
				6/3/2020		Not Located / Destroyed	
				6/16/2021		15.40	83.58
				4/19/2022	23.00	15.85	83.13
				6/27/2023		15.07	83.91
6/14/2024	15.32	83.66					
TB1-MW03R	99.05	40.1376089°	-105.1283043°	5/16/2019	23.60	Not Located / Destroyed	
				6/3/2020		Not Located / Destroyed	
				6/16/2021		15.68	83.37
				4/19/2022	16.18	82.87	
				6/27/2023	15.34	83.71	
6/14/2024	15.69	83.36					
Tabor #7 Wellsite							
TB7-MW01	100.13	40.1421692°	-105.0892274°	5/16/2019	17.90	17.00	83.13
				6/3/2020		15.90	84.23
				6/16/2021		14.90	85.23
				4/18/2022	16.02	84.11	
				6/21/2023	14.59	85.54	
6/14/2024	12.55	87.58					
TB7-MW02	99.4	40.1424833°	-105.0893984°	5/16/2019	19.70	16.64	82.76
				6/3/2020		15.80	83.60
				6/16/2021		15.35	84.05
				4/18/2022	16.47	82.93	
				6/21/2023	14.37	85.03	
6/14/2024	12.71	86.69					
TB7-MW03	98.9	40.1426391°	-105.089563°	5/16/2019	19.40	16.00	82.90
				6/3/2020		15.22	83.68
				6/16/2021		15.48	83.42
				4/18/2022	15.93	82.97	
				6/21/2023	13.87	85.03	
6/17/2024	12.61	86.29					
Maruyama #1 Wellsite							
MY1-MW01	101.88	40.1714914°	-105.059327°	5/16/2019	24.85	20.82	81.06
				5/27/2020		20.50	81.38
				6/15/2021		21.60	80.28
				4/26/2022	21.92	79.96	
				6/28/2023	19.73	82.15	
6/17/2024	19.78	82.10					
MY1-MW02	101.32	40.1715526°	-105.0595221°	5/16/2019	24.72	21.20	80.12
				5/27/2020		20.18	81.14
				6/15/2021		21.25	80.07
				4/26/2022	21.65	79.67	
				6/28/2023	20.04	81.28	
6/17/2024	20.80	80.52					
MY1-MW03	101.94	40.1715573°	-105.0591144°	5/16/2019	24.55	21.41	80.53
				5/27/2020		20.90	81.04
				6/15/2021		21.80	80.14
				4/26/2022	22.35	79.59	
				6/28/2023	20.41	81.53	
6/17/2024	20.49	81.45					
Wertman #1 Wellsite							
WT1-MW01	99.56	40.1434539°	-105.0950535°	5/16/2019	16.38	13.65	85.91
				5/28/2020		12.92	86.64
				6/28/2021		12.72	86.84
				4/18/2022	13.57	85.99	
				6/21/2023	8.72	90.84	
6/18/2024	10.55	89.01					
WT1-MW02	100.54	40.1434822°	-105.0952804°	5/16/2019	17.18	14.37	86.17
				5/28/2020		13.64	86.9
				6/28/2021		13.45	87.09
				4/18/2022	14.30	86.24	
				6/21/2023	9.22	91.32	
6/18/2024	10.13	90.41					
WT1-MW03	99.38	40.1435717°	-105.095112°	5/16/2019	17.16	13.48	85.9
				5/28/2020		12.78	86.6
				6/28/2021		12.62	86.76
				4/18/2022	13.42	85.96	
				6/21/2023	8.70	90.68	
6/18/2024	10.52	88.86					
WT1-MW04	No Survey Information			5/16/2019	Not Located / Destroyed		
				5/28/2020	Not Located / Destroyed		

Table 1 - Groundwater Elevation Data
City of Longmont - Groundwater Quality Monitoring
Project Number 22237009

Well ID	Top of Casing Elevation ¹	Latitude	Longitude	Date Measured	Total Depth ²	Depth to Groundwater ²	Groundwater Elevation ³
George Mayeda #1 Wellsite							
GM1-MW01	99.63	40.1929896°	-105.0772433°	6/3/2019	14.50	11.45	88.18
				5/26/2020		9.85	89.78
				6/21/2021		10.62	89.01
				4/26/2022		12.10	87.53
				6/28/2023		8.73	90.9
				6/18/2024		11.16	88.47
GM1-MW02	98.98	40.1930729°	-105.0772361°	6/3/2019	13.55	10.82	88.16
				5/28/2020		8.90	90.08
				6/21/2021		9.98	89
				4/26/2022		11.48	87.5
				6/28/2023		9.51	89.47
				6/18/2024		11.79	87.19
GM1-MW03	99.05	40.1929708°	-105.0771026°	6/3/2019	14.40	11.20	87.85
				5/28/2020		9.58	89.47
				6/21/2021		10.50	88.55
				4/26/2022		11.64	87.41
				6/28/2023		9.23	89.82
				6/18/2024		11.43	87.62
Mary #2 Wellsite							
MR2-MW01	99.54	40.1318271°	-105.1571869°	5/15/2019	24.64	14.45	85.09
				5/27/2020		12.92	86.62
				6/15/2021		11.80	87.74
				4/20/2022		13.95	85.59
				6/27/2023		10.83	88.71
				6/14/2024		12.82	86.72
MR2-MW02	99.89	40.1321239°	-105.1574380°	5/15/2019	24.39	16.75	83.14
				5/27/2020		14.85	85.04
				6/15/2021		12.78	87.11
				4/18/2022		15.40	84.49
				6/27/2023		12.10	87.79
				6/14/2024		13.79	86.10
MR2-MW03	99.99	40.1320292°	-105.1569805°	5/15/2019	24.54	17.55	82.44
				5/27/2020		15.64	84.35
				6/15/2021		13.62	86.37
				4/18/2022		15.83	84.16
				6/27/2023		12.95	87.04
				6/14/2024		13.97	86.02

¹All survey information is in Datum: NAD 83, Colorado North Zone NAVD 88

² Depth to groundwater is measured in feet below top of casing

³ Elevation in feet above mean sea level

^{4/5} Wells were observed to be destroyed. Unable to measure depths to water.

⁶ Filled with sediment. No water present.

NR - No Reading. Wells were not part of sampling program.

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters													General Parameters					
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8			
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--
CDPHE Basic Standards for Groundwater			0.005	0.7	0.14	0.56	1.4	--	--	--	--	0.3	--	--	--	--	--	--	--	--	--	250	10	1	10	250	--	--	400-No Limit	6.5 - 8.5
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05			200
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
Wellsite	Sample ID	Date	Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH
Shenwood #1 Wellhead	SH1-MW01	3/18/2013	ND	ND	--	ND	ND	ND	ND	--	ND	92	ND	110	2.57	118	5.91	ND	345	345	ND	37.5	8.30	ND	8.40	486	ND	1,590	--	7.60
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	83	ND	107	1.63	110	4.56	ND	388	388	1.20	35.7	8.60	ND	8.60	415	ND	1,450	--	7.00
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	98	ND	137	1.43	152	2.92	ND	422	422	1.80	50.6	11.2	ND	11.2	621	--	1,923	--	7.52
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	121	ND*	160	2.11	183	2.83	ND	450	450	1.13	63.9	15.4	ND	15.4	679	--	--	--	--
		6/10/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	116	ND*	147	2.00	152	3.46	ND	408	408	ND	59.9	8.4	ND	15.4	625	--	1,738	--	7.71
		5/28/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	65.1	--	--	--	723	--	2,053	1,310	6.92
		12/14/2021	ND	ND	--	ND	ND	ND	ND	31.7	ND	--	--	--	--	--	--	--	--	--	--	69.5	--	--	--	894	--	2,581	1,890	7.10
		4/5/2022	ND	ND	--	ND	ND	ND	ND	26.1	ND	--	--	--	--	--	--	--	--	--	--	74.5	--	--	--	862	--	2,464	1,710	8.03
		4/11/2023	ND	ND	--	ND	ND	ND	ND	36.6	ND	--	--	--	--	--	--	--	--	--	--	72.6	--	--	--	853	--	2,246	1,800	7.53
		5/8/2024	ND	ND	--	ND	ND	ND	ND	22.7	ND	--	--	--	--	--	--	--	--	--	--	72.8	--	--	--	812	--	2,102	1,540	4.06*
	SH1-MW02	3/18/2013	ND	ND	--	ND	ND	0.0091	ND	--	ND	101	ND	99.7	3.06	117	3.47	ND	365	365	ND	37.5	7.90	ND	8.00	431	ND	1,570	--	7.50
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	91	ND	96.4	1.85	111	2.74	ND	388	388	1.20	45.2	10.6	ND*	10.6	428	ND	1,500	--	7.00
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	93	ND	122	1.37	139	2.38	ND	393	393	1.50	44.4	10.5	ND	10.5	545	--	1,730	--	7.58
		6/21/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	125	ND*	126	2.16	143	3.43	ND	401	401	ND	55.3	9.76	ND*	9.76	592	--	1,878	--	7.30
		5/23/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	168	ND*	195	2.57	194	3.80	ND	418	418	ND	72.8	15.00	ND	15.00	930	--	2,472	--	7.37
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	133	ND*	145	2.17	169	2.79	ND	436	436	ND	67.1	16.60	ND	16.60	646	--	--	--	--
		6/10/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	136	ND*	151	2.10	158	2.75	ND	413	413	ND	62.5	11.70	ND	11.70	678	--	1,791	--	7.40
		5/28/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	66.9	--	--	--	840	--	2,145	1,510	6.78
		12/14/2021	ND	ND	--	ND	ND	ND	ND	27.9	ND	--	--	--	--	--	--	--	--	--	--	71.9	--	--	--	835	--	2,345	1,720	7.00
		4/5/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	74.6	--	--	--	859	--	2,845	1,840	8.03
		4/11/2023	ND	ND	--	ND	ND	ND	ND	48.5	ND	--	--	--	--	--	--	--	--	--	--	68.0	--	--	--	834	--	2,198	1,780	7.49
		5/8/2024	ND	ND	--	ND	ND	ND	ND	20.0	ND	--	--	--	--	--	--	--	--	--	--	69.2	--	--	--	829	--	2,187	1,590	4.3*
	SH1-MW03	3/18/2013	ND	ND	--	ND*	ND	ND	ND	--	ND	93	ND	107	2.26	115	2.83	ND	349	349	ND	36.6	5.70	ND	5.80	452	ND	1,600	--	7.60
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	84	ND	106	1.68	107	2.51	ND	370	370	1.10	35.8	7.80	ND	7.80	425	ND	1,440	--	7.00
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	92	ND	126	1.42	136	2.54	ND	376	376	1.40	43.9	9.80	ND	9.80	568	--	1,788	--	7.56
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	131	ND*	161	2.20	179	3.01	ND	436	436	ND	68.5	14.60	ND	14.60	725	--	--	--	--
		6/10/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	128	ND*	162	2.02	154	2.88	ND	383	383	ND	62.3	6.32	ND	6.32	712	--	1,754	--	7.73
		5/28/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	66.3	--	--	--	893	--	2,209	1,450	6.54
		12/14/2021	ND	ND	--	ND	ND	ND	ND	25.5	ND	--	--	--	--	--	--	--	--	--	--	71.0	--	--	--	836	--	2,333	1,710	6.90
		4/5/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	74.5	--	--	--	839	--	2,469	1,820	7.96
		4/11/2023	ND	ND	--	ND	ND	ND	ND	29.4	ND	--	--	--	--	--	--	--	--	--	--	65.3	--	--	--	861	--	2,277	1,770	7.52
	5/8/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	72.7	--	--	--	818	--	2,122	1,490	4.59*	

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters													General Parameters						
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6					14808-79-8	18496-25-8			
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--	
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		250	10	1	10	250		0.05	400-No Limit	6.5 - 8.5
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
Sherwood #2 Wellhead	SH2-MW01	3/18/2013	ND	ND	--	ND	ND	ND	ND	--	ND	189	ND	121	3.86	102	3.44	ND	345	345	ND	40.2	11.4	0.63	12.0	799	--	1,940	--	7.50	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	169	ND	107	1.21	108	3.72	ND	386	386	ND	33.6	11.0	ND	11.0	712	--	1,935	--	7.47	
		6/21/2016	ND	ND	--	ND	ND	ND*	ND*	--	ND*	186	ND	107	1.91	108	3.26	ND	371	371	ND	41.5	16.3	ND*	16.3	613	--	1,853	--	7.30	
		5/23/2017	ND	ND	--	ND	ND	ND*	ND*	--	ND*	250	ND	135	2.56	116	3.65	ND	291	291	ND	52.7	11.3	ND*	11.3	836	--	2,195	--	7.40	
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	234	ND*	131	2.07	122	3.89	ND	349	349	ND	52.6	6.0	ND*	6.0	899	--	--	--	--	
		6/17/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	240	0.10	140	2.04	110	4.42	ND	390	390	1.52	26.4	8.2	ND*	8.2	640	--	2,170	--	7.49	
		6/5/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	55.9	--	--	--	977	--	2,385	1,930	--	
		12/14/2021	ND	ND	--	ND	ND	ND	ND	22.5	ND	--	--	--	--	--	--	--	--	--	--	--	50.2	--	--	--	865	--	2,200	1,690	6.80
		4/5/2022	ND	ND	--	ND	ND	ND	ND	23.5	ND	--	--	--	--	--	--	--	--	--	--	--	54.4	--	--	--	870	--	2,230	1,620	8.20
	SH2-MW02	4/11/2023	ND	ND	--	ND	ND	ND	ND	24.6	ND	--	--	--	--	--	--	--	--	--	--	--	54.6	--	--	--	890	--	2,251	1,630	7.33
		5/8/2024	ND	ND	--	ND	ND	ND	ND	24.9	ND	--	--	--	--	--	--	--	--	--	--	--	77.9	--	--	--	1,210	--	2,647	1,990	4.59*
		3/18/2013	ND	ND	--	ND	ND	ND	ND	--	ND	225	ND	121	5.72	111	3.87	ND	315	315	ND	43.8	13.6	ND	13.8	824	ND	2,060	--	7.40	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	183	ND	105	3.61	110	4.18	ND	367	367	ND	37.8	11.8	ND	11.8	749	--	2,029	--	7.43	
		6/21/2016	ND	ND	--	ND	ND	ND*	ND*	--	ND*	208	ND*	108	4.36	107	3.71	ND	377	377	ND	41.8	15.5	ND*	15.5	654	--	1,918	--	7.40	
		5/23/2017	ND	ND	--	ND	ND	ND*	ND*	--	ND*	233	ND*	129	3.87	115	3.64	ND	210	210	ND	47.1	8.13	ND*	8.13	824	--	2,056	--	7.41	
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	236	ND*	129	3.76	121	4.02	ND	351	351	ND	51.8	5.98	ND*	5.98	904	--	--	--	--	
		6/17/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	247	ND*	129	4.27	113	4.72	ND	410	410	1.48	26.4	8.84	ND*	5.98	682	--	2,170	--	7.54	
		6/5/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	58.1	--	--	--	983	--	2,420	1,900	--
	SH2-MW03	12/14/2021	ND	ND	--	ND	ND	ND	ND	33.0	ND	--	--	--	--	--	--	--	--	--	--	--	58.8	--	--	--	1,060	--	2,447	1,900	6.90
		4/5/2022	ND	ND	--	ND	ND	ND	ND	25.2	ND	--	--	--	--	--	--	--	--	--	--	--	56.1	--	--	--	978	--	2,381	1,800	7.53
		4/11/2023	ND	ND	--	ND	ND	ND	ND	26.9	ND	--	--	--	--	--	--	--	--	--	--	--	53.1	--	--	--	901	--	2,199	1,810	7.37
		5/8/2024	ND	ND	--	ND	ND	ND	ND	23.9	ND	--	--	--	--	--	--	--	--	--	--	--	71.9	--	--	--	1,110	--	2,436	1,920	4.23*
		3/18/2013	ND	ND	--	ND	ND	ND	ND	--	ND	220	ND	115	4.69	104	4.52	ND	324	324	ND	44.8	13	ND	13.1	847	ND	2,080	--	7.40	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	192	ND	93.9	5.74	109	4.46	ND	367	367	ND	37.6	11.4	ND	11.4	802	--	2,007	--	7.36	
		6/21/2016	ND	ND	--	ND	ND	ND*	ND*	--	ND*	212	ND*	97.2	7.09	105	3.85	ND	371	371	ND	41.5	16.9	ND	16.9	624	--	1,905	--	7.30	
		5/23/2017	ND	ND	--	ND	ND	ND*	ND*	--	ND*	282	ND*	116	11.7	119	4.3	ND	295	295	ND	56.3	11.5	ND	11.5	833	--	2,198	--	7.23	
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	258	ND*	123	7.91	128	4.51	ND	349	349	ND	54.8	7.32	ND*	7.32	944	--	--	--	--	
	6/17/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	246	0.022	115	7.1	115	4.91	ND	410	410	71.8	0.5	9.88	ND*	7.32	944	--	2,165	--	7.45		
	6/5/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	62.7	--	--	--	995	--	2,400	2,000	--	

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters															General Parameters				
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6					14808-79-8	18496-25-8			
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--	--
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Detection Level			0.005	0.7	0.14	0.56	1.4	--	--	--	--	0.3	--	--	--	--	--	--	--	--	--	250	10	1	10	250	--	--	400-No Limit	6.5 - 8.5	
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
City of Longmont #1 Wellhead	CL1-MW01	3/20/2013	ND	ND	--	ND	ND	ND	ND	--	ND	81	ND	72.2	2.83	61.7	2.38	ND	377	377	ND	34.1	13.9	ND	13.9	182	ND	1,160	--	7.90	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	92	ND	85.5	1.45	91.8	2.53	ND	427	427	1.4	43.5	16.7	ND*	16.7	254	--	1,390	--	7.51	
		6/21/2016	ND	ND	--	ND	ND	ND*	ND*	--	ND*	104	ND	83	1.94	91	2.77	ND	393	393	ND	42.7	12.2	ND	12.2	247	--	1,410	--	7.60	
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	83	ND	66	1.71	69.1	1.86	ND	355	355	ND	34.9	8.14	ND	8.14	140	--	--	--	--	
		6/17/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	83	ND	71.1	1.6	65.7	2.53	ND	450	450	1.52	16.2	10.5	ND	10.5	217	--	1,147	--	7.61	
		6/2/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	49.3	--	--	--	302	--	1,481	983	4.37	
		6/15/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	44.2	--	--	--	316	--	1,476	976	7.50	
		4/5/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	43.0	--	--	--	248	--	1,336	917	8.40	
		4/12/2023	ND	ND	--	ND	ND	ND	ND	29.7	ND	--	--	--	--	--	--	--	--	--	--	43.2	--	--	--	--	183	--	1,207	781	7.65
		5/9/2024	ND	ND	--	ND	ND	ND	ND	37.1	ND	--	--	--	--	--	--	--	--	--	--	--	52.5	--	--	--	416	--	1,571	1,050	3.90*
	CL1-MW02	3/20/2013	ND	ND	--	ND	ND	ND	ND	--	ND	77	ND	67.4	2.1	60.4	4.26	ND	354	354	ND	32.7	2.6	ND	2.6	171	ND	1,090	--	7.90	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	77	ND	67.4	2.1	60.4	4.26	ND	354	354	ND	32.7	2.6	ND	2.6	171	ND	1,090	--	7.90	
		6/22/2016	ND	ND	--	ND	ND	ND*	ND*	--	ND*	102	ND	85.5	1.98	93.3	3.22	ND	372	372	ND	46.7	13	ND	13	246	--	1,402	--	7.30	
		5/23/2017	ND	ND	--	ND	ND	ND*	ND*	--	ND*	97	ND	77.2	1.91	89.5	2.24	ND	416	416	ND	44.7	9.75	ND	9.75	209	--	1,261	--	7.19	
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	80	ND*	62.9	1.76	76.9	1.81	ND	352	352	ND	36.4	9.1	ND	9.1	144	--	--	--	--	
		6/17/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	89	0.014	73	1.81	70.1	2.46	ND	450	450	1.51	18.2	10.6	ND	10.6	216	--	1,132	--	7.66	
		6/2/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	47.4	--	--	--	266	--	1,388	935	--	
		6/15/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	46.8	--	--	--	345	--	1,534	1,020	7.60	
		4/5/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	44.9	--	--	--	249	--	1,341	911	8.38	
		4/12/2023	ND	ND	--	ND	ND	ND	ND	29.0	ND	--	--	--	--	--	--	--	--	--	--	45.9	--	--	--	--	200	--	2,151	828	7.74
	5/9/2024	ND	ND	--	ND	ND	ND	ND	35.6	ND	--	--	--	--	--	--	--	--	--	--	--	51.3	--	--	--	384	--	1,513	1,050	3.94*	
	CL1-MW03	3/21/2013	ND	ND	--	ND	ND	ND	ND	--	ND	86	ND	75.1	2.83	63.6	3.45	ND	389	389	ND	35.3	14.8	ND	14.9	189	ND	1,130	--	7.70	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	86	ND	75.1	2.83	63.6	3.45	ND	389	389	ND	35.3	14.8	ND	14.9	189	ND	1,130	--	7.70	
		6/21/2016	ND	ND	--	ND	ND	ND*	ND*	--	ND*	105	ND	82.9	1.91	94.7	2.41	ND	380	380	ND	45.7	13.3	ND	13.3	254	--	1,394	--	7.40	
		5/23/2017	ND	ND	--	ND	ND	ND*	ND*	--	ND*	90	ND	70.2	1.89	86.4	2.01	ND	381	381	ND	44.4	13.1	ND	13.1	163	--	1,175	--	7.43	
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	80	ND*	67.6	1.73	73.6	1.94	ND	353	353	ND	35.2	7.57	ND	7.57	149	--	--	--	--	
		6/17/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	84	0.129	73.4	1.85	74.9	2.32	ND	440	440	1.51	14.4	10.5	ND	10.5	210	--	1,125	--	7.65	
		6/2/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	46.4	--	--	--	280	--	1,672	948	--	
		6/28/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	45.9	--	--	--	337	--	1,672	986	7.60	
		4/5/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	43.7	--	--	--	284	--	1,432	785	8.46	
		4/12/2023	ND	ND	--	ND	ND	ND	ND	23.6	ND	--	--	--	--	--	--	--	--	--	--	44.8	--	--	--	--	218	--	1,278	816	7.61
	5/9/2024	ND	ND	--	ND	ND	ND	ND	24.7	ND	--	--	--	--	--	--	--	--	--	--	--	53.3	--	--	--	427	--	1,589	1,110	3.90*	

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters															General Parameters				
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8				
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--	
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05		400-No Limit	6.5 - 8.5	
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units	
Serafini Gas Unit	SGU-MW01	3/21/2013	ND	ND	--	ND	ND	ND	ND	--	ND	81	ND	53.7	3.59	67.2	2.96	ND	328	328	ND	29.8	5.9	ND	5.9	191	ND	1,060	--	7.80	
		10/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	77	0.208	54.7	2.88	62.5	2.32	ND	345	345	ND	30.3	7.4	ND	7.4	292	ND	1,190	--	7.30	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	98	ND	63.8	2.46	76.8	2.77	ND	392	392	ND	32.8	8.4	ND	8.4	263	--	1,322	--	7.51	
		6/21/2016	ND	ND	--	ND	ND	ND*	ND*	--	ND*	109	ND	61.9	2.67	69.9	2.02	ND	364	364	ND	37.8	7.37	ND	7.37	205	--	1,170	--	7.50	
		5/23/2017	ND	ND	--	ND	ND	ND*	ND*	--	ND*	118	ND	65.2	3.03	72	1.86	ND	400	400	ND	39.3	7.39	ND	7.39	192	--	1,201	--	7.33	
		6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	108	ND	57.9	2.59	73.8	1.65	ND	348	348	ND	35.3	10	ND	10	186	--	--	--	--	
		6/10/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	39.1	--	--	--	176	--	1,093	496	7.50	
		6/21/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	39.3	--	--	--	--	182	--	1,213	768	7.50
		4/6/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	42.5	--	--	--	--	208	--	1,192	749	7.95
		4/11/2023	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	40.7	--	--	--	--	233	--	1,292	813	7.45
		5/8/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	48.8	--	--	--	--	250	--	1,288	885	4.47*
	SGU-MW02	3/21/2013	ND	ND	--	ND	ND	0.0087	ND	--	ND	93	ND	57.8	3.39	78.6	1.72	ND	359	359	ND	34.2	7.2	ND	7.3	228	ND	1,100	--	7.90	
		10/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	89	0.381	54.5	2.63	53.3	3.12	ND	364	364	ND	33.2	8.4	ND	8.4	243	ND	1,150	--	7.30	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	98	ND	63.7	2.23	59.3	2.31	ND	420	420	ND	31.9	8	ND	8	258	--	1,135	--	7.59	
		6/21/2016	0.0589	ND	--	ND	ND	0.238	0.0159	--	ND*	110	ND	63.5	2.98	158	2.82	ND	401	401	ND	119	6.42	ND	6.42	201	--	1,654	--	7.30	
		5/23/2017	0.0353	ND	--	ND	ND	0.0884	ND*	--	ND*	142	ND	79.7	10.8	271	4.16	ND	482	482	3.29	438	1.37	ND	1.37	223	--	NS	--	NS	
		6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	132	ND	70.1	3.39	105	2.1	ND	369	369	ND	58	12.4	ND	12.4	295	--	--	--	--	
		6/10/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	37.5	--	--	--	--	156	--	1,070	649	7.30
		6/21/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	60.2	--	--	--	--	211	--	1,299	835	7.60
		4/6/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	45.1	--	--	--	--	188	--	1,160	784	8.16
		4/11/2023	ND	ND	--	ND	ND	ND	ND	20.2	ND	--	--	--	--	--	--	--	--	--	--	41.9	--	--	--	--	214	--	1,221	795	7.31
		5/8/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	46.3	--	--	--	--	210	--	1,210	744	4.39*
	SGU-MW03	3/21/2013	ND	ND	--		ND	ND	ND	--	ND	88	ND	49	3.94	47.7	4.07	ND	632	632	ND	28.3	4.4	ND	4.4	152	ND	917	--	7.60	
		10/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	96	0.076	50.5	1.91	50.3	2.47	ND	365	365	ND	34.5	10.1	ND*	10.1	252	ND	1,160	--	7.30	
		3/30/2015	ND	ND	--	ND	ND	ND	ND	--	ND	112	ND	59.1	1.74	64	2.83	ND	416	416	ND	33.9	8.6	ND*	8.6	259	ND	1,139	--	7.57	
		6/21/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	142	ND	67.4	2.22	69.2	2.33	ND	375	375	ND	43.7	9.91	ND	9.91	261	--	1,346	--	7.40	
		5/23/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	137	ND	67	2.54	64.5	2.1	ND	434	434	ND	41.8	9.15	ND	9.15	220	--	1,238	--	7.13	
		6/28/2018	ND	ND	--	ND	ND	0.0261	ND*	--	ND*	133	ND	82.6	4.22	115	2.32	ND	422	422	ND	60.2	12.80	ND	12.80	298	--	--	--	--	
		6/10/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	46.1	--	--	--	--	222	--	1,214	785	7.40
		6/21/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	56.9	--	--	--	--	272	--	1,390	917	7.60
		4/6/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	44.7	--	--	--	--	222	--	1,231	767	7.92
		4/11/2023	ND	ND	--	ND	ND	ND	ND	36.5	ND	--	--	--	--	--	--	--	--	--	--	43.7	--	--	--	--	219	--	1,230	792	7.26
		5/8/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	46.4	--	--	--	--	255	--	1,368	822	4.38*
	SGU-MW04	6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	127	ND	58	1.95	67.9	1.84	ND	351	351	ND	36.1	11.10	ND	11.10	234	--	--	--	--	
	SGU-MW05	6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	148	ND	60.7	3.87	72.4	2.11	ND	392	392	ND	39.9	7.63	ND	7.63	273	--	--	--	--	
	SGU-MW06	6/10/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	41.5	--	--	--	--	208	--	1,232	725	7.30
		6/21/2021	ND	ND	--	ND	ND	ND	ND	29.7	ND	--	--	--	--	--	--	--	--	--	--	50.1	--	--	--	--	265	--	1,466	928	7.40
		4/6/2022	ND	ND	--	ND	ND	ND	ND	29.7	ND	--	--	--	--	--	--	--	--	--	--	48.6	--	--	--	--	229	--	1,223	776	8.02
		4/11/2023	ND	ND	--	ND	ND	ND	ND	31.0	ND	--	--	--	--	--	--	--	--	--	--	43.5	--	--	--	--	226	--	1,233	832	7.49
		5/8/2024	ND	ND	--	ND	ND	ND	ND	36.8	ND	--	--	--	--	--	--	--	--	--	--	121	--	--	--	--	286	--	1,664	1,020	4.63*
	SGU-MW07	6/10/2020	ND	ND	--	ND	ND	0.0224	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	41.9	--	--	--	--	61	--	870	327	7.30
		6/21/2021	ND	ND	--	ND	ND	0.0247	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	37.9	--	--	--	--	80	--	1027	474	7.40

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters															General Parameters				
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8				
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	430.625	--	--	--	--	
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05			400-No Limit	
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units	
Powell #1 Wellhead	PL1-MW01	3/20/2013	ND	ND	--	ND	ND	ND	ND	--	ND	95	ND	73.2	2.28	65.3	1.82	ND	295	295	ND	31.8	5.9	ND	5.9	369	ND	1,280	--	7.90	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	ND	--	ND	92	ND	71.8	1.25	63.5	1.78	ND	259	259	ND	38.9	10	ND	10	427	--	1,315	--	7.10
		6/22/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	284	ND	195	2.25	114	4.88	ND	198	198	ND	86.0	11.2	ND	11.2	1,270	--	2,583	--	6.98	
		5/23/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	104	ND	75.1	1.64	89.9	1.64	ND	235	235	ND	33.8	9.36	ND	9.36	370	--	1,261	--	7.28	
		6/27/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	101	ND*	74.9	1.66	97.2	1.74	ND	215	215	ND	35.4	5.94	ND	5.94	457	--	--	--	--	
		6/10/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	107	ND	75.6	1.53	68.6	1.79	ND	273	273	ND	34.4	5.88	ND	5.88	337	--	1,123	--	7.61	
		5/28/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	36.6	--	--	--	375	--	1,272	866	6.95	
		6/15/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	38.6	--	--	--	491	--	1,550	1,090	6.90	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	40.6	--	--	--	655	--	1,755	1,180	8.13	
		6/20/2023	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	42.0	--	--	--	2,670	--	4,081	4,100	6.92	
		6/13/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	24.7	--	--	--	1,380	--	2,798	2210	7.18	
	PL1-MW02	3/20/2013	ND	ND	--	ND	ND	ND	ND	--	ND	106	ND	75.9	2.33	115	1.83	ND	311	311	ND	32.8	ND	ND	ND	484	ND	1,480	--	7.40	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	129	0.393	95.9	2.25	119	2.12	ND	318	318	1.1	39.6	ND	ND	ND	633	--	1,707	--	7.19	
		6/22/2016	ND	ND	--	ND*	ND	0.012	ND*	--	ND*	131	ND	91.1	2.53	134	2.12	ND	304	304	ND	36.7	ND	ND	ND	616	--	1,638	--	7.20	
		5/23/2017	ND	ND	--	ND*	ND	0.0231	ND*	--	ND*	143	ND	97.9	2.63	165	1.92	ND	321	321	ND	39.7	ND	ND	ND	688	--	2,021	--	7.19	
		6/27/2018	ND	ND	--	ND	ND	0.036	ND*	--	ND*	128	ND*	88.9	2.54	170	1.89	ND	321	321	ND	36.7	ND	ND	ND	670	--	--	--	--	
		6/10/2019	ND	ND	--	ND	ND	0.036	ND*	--	ND*	119	ND*	82.1	2.23	149	1.8	ND	302	302	ND	36.1	ND	ND	ND	555	--	1,511	--	7.46	
		5/28/2020	ND	ND	--	ND	ND	0.0204	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	38.2	--	--	--	563	--	1,659	1,110	6.74	
		6/15/2021	ND	ND	--	ND	ND	0.0441	ND	21.8	ND	--	--	--	--	--	--	--	--	--	--	36.8	--	--	--	584	--	1,579	1,110	6.80	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	24.2	ND	--	--	--	--	--	--	--	--	--	--	38.9	--	--	--	541	--	1,798	1,090	7.42	
		6/20/2023	ND	ND	--	ND	ND	0.0203	ND	31.6	ND	--	--	--	--	--	--	--	--	--	--	45.0	--	--	--	719	--	2,112	1,420	6.93	
		6/13/2024	ND	ND	--	ND	ND	ND	ND	20.2	ND	--	--	--	--	--	--	--	--	--	--	44.6	--	--	--	694	--	1,878	1470	7.19	
	PL1-MW03	3/19/2013	ND	ND	--	ND	ND	ND	ND	--	ND	86	ND	63	3.02	58.6	1.9	ND	296	296	ND	32.3	0.58	ND	0.57	265	ND	1,090	--	7.40	
		6/27/2018	ND	ND	--	ND	ND	0.1	ND*	--	ND*	66	ND	47.9	3.4	77	1.07	ND	256	256	ND	35.0	0.503	ND	0.503	212	--	--	--	--	
		6/10/2019	ND	ND	--	ND	ND	0.404	ND	--	ND	93	ND	60.4	2.63	71.9	1.56	ND	250	250	ND	39.6	ND	ND	ND	295	--	1,022	--	7.56	
		5/28/2020	ND	ND	--	ND	ND	0.0169	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	34.3	--	--	--	292	--	1,158	670	6.99	
		6/15/2021	ND	ND	--	ND	ND	0.0489	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	66.8	--	--	--	383	--	1,322	889	7.00	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	36.3	--	--	--	181	--	984	582	8.67	
6/20/2023		ND	ND	--	ND	ND	ND	ND	ND	41.0	ND	--	--	--	--	--	--	--	--	--	47.0	--	--	--	743	--	1,335	1,270	6.61		
6/13/2024		ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	54.0	--	--	--	1,490	--	2,917	2730	6.86		

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters													General Parameters						
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8				
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--	--
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05		400-No Limit	200	6.5 - 8.5
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units	
Evans #6 Wellhead	E6W-MW01	3/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	183	ND	126	6.52	157	4.04	ND	307	307	ND	32.7	0.44	ND	0.44	987	ND	2,070	--	7.60	
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	281	ND	182	7.58	236	5.52	ND	381	381	ND	72.2	5.0	ND	5.0	1,710	ND	4,960	--	6.00	
		7/28/2014	ND	ND	--	ND	ND	ND	ND	--	ND	206	ND	133	6.41	181	4.19	ND	326	326	ND	50.0	0.84	ND	0.84	1,130	--	2,074	--	7.20	
		03/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	207	ND	136	4.36	172	4.29	ND	351	351	ND	42.9	0.83	ND	0.83	1,090	--	2,397	--	7.27	
		6/22/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	187	ND	115	4.59	164	4.06	ND	268	268	ND	42.6	0.351	ND	0.351	915	--	2,090	--	7.20	
		5/25/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	332	ND	187	5.64	222	5.25	ND	305	305	ND	39.9	3.55	ND	3.55	1,580	--	2,944	--	6.74	
		6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	188	ND	108	4.25	171	3.39	ND	269	269	ND	35.9	ND	ND	ND	875	--	--	--	--	
		6/6/2019	ND	ND	--	ND	ND	ND	ND	ND	ND	207	ND	119	4.25	172	3.5	ND	312	312	ND	31.8	1.65	ND	1.65	955	--	2,026	2,570	7.53	
		6/3/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	38.6	--	--	--	735	--	3,404	1,290	7.50	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	34.3	--	--	--	785	--	2,020	1,380	7.54	
		6/19/2023	ND	ND	--	ND	ND	ND	ND	40.6	ND	--	--	--	--	--	--	--	--	--	--	86.3	--	--	--	1,170	--	2,910	2,740	7.05	
		6/13/2024	ND	ND	--	ND	ND	ND	ND	21.8	ND	--	--	--	--	--	--	--	--	--	--	45.1	--	--	--	650	--	1,843	1,360	7.20	
	E6W-MW02	3/22/2013	ND	ND	--	ND	ND	0.0278	ND	--	ND	207	ND	175	10.6	212	5.94	ND	312	321	1.5	34.4	ND	ND	ND	1,380	ND	2,200	--	7.80	
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	329	ND	279	42.4	419	7.28	ND	426	426	1	110	14.5	ND*	14.5	2,630	ND	7,000	--	6.00	
		7/28/2014	ND	ND	--	ND	ND	ND	ND	--	ND	187	ND	139	22.7	189	4.48	ND	309	309	ND	38.4	2.6	ND	2.6	1,350	--	2,358	--	7.27	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	181	ND	150	15.3	188	4.02	ND	307	307	ND	35.4	0.58	ND	0.58	1,160	--	2,472	--	7.47	
		6/22/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	226	ND	182	19.8	235	7.6	ND	304	304	ND	50.3	2.94	ND	2.94	1,430	--	2,821	--	7.30	
		5/25/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	167	ND	130	7.94	179	4.03	ND	280	280	ND	38.7	0.685	ND	0.685	863	--	2,076	--	7.27	
		6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	188	ND	142	9.41	192	3.61	ND	294	294	ND	35.0	0.312	ND	0.312	996	--	--	--	--	
		6/6/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	194	ND	150	10.4	188	3.44	ND	277	277	ND	30.8	1.12	ND	1.12	1,120	--	2,133	--	7.57	
		6/3/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	93.0	--	--	--	2,820	--	4,660	4,500	--	
		6/17/2021	ND	ND	--	ND	ND	ND	ND	20.9	ND	--	--	--	--	--	--	--	--	--	--	51.9	--	--	--	3,610	--	2,729	2,070	7.50	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	34.4	--	--	--	888	--	2,142	1,590	7.72	
		6/19/2023	ND	ND	--	ND	ND	ND	ND	33.0	ND	--	--	--	--	--	--	--	--	--	--	61.7	--	--	--	1,490	--	3,106	3,030	7.08	
		6/13/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	42.6	--	--	--	951	--	2,215	1,770	7.36	
	E6W-MW03	3/22/2013	ND	ND	--	ND	ND	0.0141	ND	--	ND	192	ND	150	9.22	184	5.73	ND	312	312	ND	31.1	0.11	ND	0.12	1,130	ND	2,280	--	7.60	
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	363	ND	255	31.1	333	7.09	ND	367	367	ND	96.2	6.2	ND	6.2	2,420	ND	6,320	--	6.00	
		07/28/2014	ND	ND	--	ND	ND	ND	ND	--	ND	264	ND	167	13.1	217	5.34	ND	315	315	ND	52.4	1.9	ND	1.9	1,550	--	2,635	--	7.15	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	200	ND	133	8.49	178	4.02	ND	327	327	ND	40.8	1.4	ND	1.4	1,180	--	2,481	--	7.34	
		6/22/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	262	ND	156	9.13	196	6.61	ND	325	325	ND	49.0	3.38	ND	3.38	1,280	--	2,678	--	7.20	
		5/25/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	273	ND	166	9.72	210	4.37	ND	299	299	ND	36.9	1.98	ND	1.98	1,430	--	2,696	--	7.09	
		6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	302	ND	165	6.94	217	4.98	ND	319	319	ND	37.8	0.725	ND	0.725	1,390	--	--	--	--	
		6/6/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	250	ND	146	7.26	192	3.89	ND	298	298	ND	30.1	1.16	ND	1.16	1,200	--	2,331	--	7.61	
		6/3/2020	ND	ND	--	ND	ND	ND	ND	117	ND	--	--	--	--	--	--	--	--	--	--	188	--	--	--	7,080	--	9,455	10,400	--	
		6/17/2021	ND	ND	--	ND	ND	ND	ND	21.3	ND	--	--	--	--	--	--	--	--	--	--	36.8	--	--	--	1,020	--	2,427	1,900	7.40	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	20.8	ND	--	--	--	--	--	--	--	--	--	--	35.7	--	--	--	990	--	2,246	1,620	7.64	
		6/19/2023	ND	ND	--	ND	ND	ND	ND	39.1	ND	--	--	--	--	--	--	--	--	--	--	47.1	--	--	--	1,310	--	2,762	2,490	7.08	
		6/13/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	39.4	--	--	--	ND	--	2,062	1,670	7.26	

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters															General Parameters				
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8				
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--	--
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	400-No Limit	6.5 - 8.5
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05			200	
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
Evans #6 Tank Battery	E6T-MW01	3/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	326	ND	285	12.1	593	6.14	ND	334	334	1.2	112	0.93	ND	0.93	3,060	ND	5,030	--	7.80	
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	306	ND	256	6.61	666	4.03	ND	401	401	ND	111	ND	ND	ND	3,190	ND	8,280	--	7.00	
		7/28/2014	ND	ND	--	ND	ND	ND	ND	--	ND	280	ND	215	5.8	446	4.54	ND	340	340	ND	104	ND	ND	ND	2,810	--	4,100	--	7.47	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	258	ND	205	4.81	608	4.05	ND	324	324	ND	96.5	ND	ND	ND	2,590	--	4,706	--	7.42	
		6/22/2016	ND	ND	--	ND*	ND	0.0122	ND*	--	ND*	251	ND	168	5.15	587	4.85	ND	291	291	ND	86.1	ND	ND	ND	2,190	--	4,225	--	7.46	
		5/25/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	217	ND	140	4.4	616	2.93	ND	277	277	ND	90.6	ND	ND	ND	1,930	--	3,850	--	7.38	
		6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	193	ND*	121	3.91	595	2.65	ND	257	257	ND	84.9	ND	ND	ND	1,970	--	--	--	--	
		6/6/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	174	ND	110	3.64	560	2.38	ND	309	309	ND	76.3	ND	ND	ND	1,550	--	3,140	--	7.21	
		6/4/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	38.1	--	--	--	826	--	1,956	1,580	--
		6/17/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	82.6	--	--	--	1,480	--	3,462	2,460	7.70
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	84.0	--	--	--	1,430	--	3,466	2,010	--
		6/19/2023	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	66.5	--	--	--	1,220	--	2,983	2,280	7.36
		6/12/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	72.0	--	--	--	1,930	--	3,982	2,660	7.42
	E6T-MW02	3/22/2013	ND	ND	--	ND	ND	0.0076	ND	--	ND	238	ND	181	7.41	247	4.52	ND	346	346	1.2	63.9	ND	ND	ND	1,560	ND	2,960	--	7.60	
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	271	ND	210	6.58	334	4.45	ND	391	391	ND	68.6	16.6	ND*	17	1,770	ND	5,640	--	6.00	
		7/28/2014	ND	ND	--	ND	ND	ND	ND	--	ND	393	ND	297	7.56	356	7.04	ND	346	346	ND	113	ND	ND	ND	3,080	--	3,968	--	7.44	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	430	ND	392.00	7.24	563.00	8.27	ND	277.00	277.00	ND	129	ND	ND	ND	3,610	--	5,745	--	7.28	
		6/22/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	551	ND	810	8.74	1,060	29.3	ND	141	141	ND	218	ND	ND	ND	7,560	--	9,390	--	7.04	
		5/25/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	399	ND	331	7.58	462	7.78	ND	250	250	ND	83.9	0.575	ND	0.575	2,960	--	--	--	--	
		6/28/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	400	ND*	318	7.4	436	5.86	ND	166	166	ND	88.2	ND	ND	ND	2,600	--	--	--	--	
		6/6/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	462	ND	371	7.82	490	6.01	ND	184	184	ND	92.7	1.39	ND	1.39	3,170	--	4,610	--	6.93	
		6/4/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	40.5	--	--	--	1,210	--	2,520	2,070	--
		6/17/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	83.3	--	--	--	2,540	--	4,502	3,830	7.20
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	95.0	--	--	--	3,080	--	4,907	3,530	--
		6/19/2023	ND	ND	--	ND	ND	ND	ND	21.4	ND	--	--	--	--	--	--	--	--	--	--	--	43.8	--	--	--	1,340	--	3,023	2,980	6.89
		6/12/2024	ND	ND	--	ND	ND	ND	ND	24.3	ND	--	--	--	--	--	--	--	--	--	--	--	82.6	--	--	--	2,660	--	5,204	4,530	7.01
	E6T-MW03	3/22/2013	ND	ND	--	ND	ND	0.0068	ND	--	ND	354	ND	350	11	500	7.86	ND	524	524	1.3	103	ND	ND	ND	2,650	ND	4,830	--	7.40	
		10/23/2013	ND	ND	--	ND	ND	ND	ND	--	ND	516	0.212	644	8.43	992	10.1	ND	732	732	1.2	249	ND	ND	ND	5,200	ND	13,200	--	6.00	
		7/28/2014	ND	ND	--	ND	ND	ND	ND	--	ND	530	ND	680	7.48	1,010	2.51	ND	468	468	1.1	254	ND	ND	ND	6,240	--	7,162	--	7.35	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	432	9.73	543	6.25	840	9.29	ND	301	301	ND	165	ND	ND	ND	4,970	--	7,557	--	7.16	
		6/22/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	392	ND	295	6.65	490	7.44	ND	245	245	ND	88.1	4.41	ND	4.41	2,930	--	4,748	--	7.38	
		5/25/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	432	0.282	616	6.34	824	7.73	ND	ND	ND	ND	166	ND	ND	ND	5,610	--	7,601	--	5.08	
		6/28/2018	ND	ND	--	ND	ND	0.013	ND*	--	ND*	436	ND*	646	7.02	894	7.82	ND	ND	ND	ND	179	ND	ND	ND	5,850	--	--	--	--	
		6/6/2019	ND	ND	--	ND	ND	ND	ND	--	ND	392	ND	764	7.61	1180	9.71	ND	ND	ND	ND	162	3	ND	3	6,290	--	8,180	--	5.77	
		6/4/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	32.3	--	--	--	968	--	2,270	1,790	--
		6/17/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	126	--	--	--	4,890	--	7,239	7,100	5.90
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	140	--	--	--	4,720	--	6,338	4,270	--
		6/19/2023	ND	ND	--	ND	ND	ND	ND	126	ND	--	--	--	--	--	--	--	--	--	--	--	114	--	--	--	5,350	--	245	8,490	4.81
		6/12/2024	ND	ND	--	ND	ND	ND	ND	26.1	ND	--	--	--	--	--	--	--	--	--	--	--	110	--	--	--	6,860	--	10,240	5,200	4.62

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters													General Parameters						
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8				
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	430.625	--	--	--	--	
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05			400-No Limit	6.5 - 8.5
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units	
Longmont 8-10K Wellhead	LM8-MW01	3/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	75	ND	79.1	5.87	106	3.03	ND	204	204	ND	40.1	0.23	ND	0.24	496	ND	1,350	--	7.50	
		12/20/2017	--	--	--	--	--	ND	--	--	--	339	--	120	22.7	203	2.68	--	--	244	--	90.2	0.875	--	0.875	1,410	--	2,742	--	7.66	
		6/5/2019	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	492	ND	326	12.1	223	6.26	ND	129	129	ND	35.9	ND	ND	ND	2,820	--	3,478	--	6.74
		6/4/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	38.6	--	--	--	2,600	--	4,011	4,040	--
		6/23/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	42.5	--	--	--	2,960	--	4,402	4,140	--
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	46.1	--	--	--	2,940	--	4,279	3,200	--
		6/19/2023	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	39.6	--	--	--	2,440	--	3,740	3,860	7.09
	6/12/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	1,990	--	2,837	2,730	7.40	
	LM8-MW02	3/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	85	ND	88.6	5.39	131	1.97	ND	234	234	ND	42.9	0.28	ND	0.29	548	ND	1,540	--	7.60	
		12/20/2017	--	--	--	--	--	ND	--	--	--	182	--	152	9.38	244	2.32	--	--	246	--	79.9	0.423	--	0.423	1,190	--	2,546	--	7.37	
		6/5/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	522	ND	432	16.5	200	7.32	ND	ND	ND	ND	45.5	ND	ND	ND	4,600	--	4,366	--	5.91	
		6/4/2020	ND	ND	--	ND	ND	ND	ND	79.6	ND	--	--	--	--	--	--	--	--	--	--	--	41	--	--	--	2,950	--	4,012	4,090	--
		6/23/2021	ND	ND	--	ND	ND	ND	ND	141	ND	--	--	--	--	--	--	--	--	--	--	--	36.2	--	--	--	2,730	--	3,703	3,580	--
		4/21/2022	ND	ND	--	ND	ND	ND	ND	39.8	ND	--	--	--	--	--	--	--	--	--	--	--	37.6	--	--	--	2,370	--	3,400	3,030	--
		6/19/2023	ND	ND	--	ND	ND	ND	ND	47.8	ND	--	--	--	--	--	--	--	--	--	--	--	15.6	--	--	--	660	--	1,345	1,140	6.13
	6/12/2024	ND	ND	--	ND	ND	ND	ND	64.8	ND	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	1,390	--	2,932	1,900	5.33	
	LM8-MW03	3/22/2013	ND	ND	--	ND	ND	ND	ND	--	ND	87	ND	94.1	5.65	122	2.87	ND	244	244	ND	42.1	ND	ND	ND	530	ND	1,530	--	7.40	
		12/20/2017	--	--	--	--	--	0.0263	--	--	--	209	--	173	11.5	255	2.76	--	--	211	--	95.9	5.12	--	5.12	1,370	--	2,685	--	7.43	
		6/5/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	437	ND	326	13.4	177	5.88	ND	ND	ND	ND	35.1	ND	ND	ND	3,570	--	3,486	--	5.34	
		6/4/2020	ND	ND	--	ND	ND	ND	ND	65.6	ND	--	--	--	--	--	--	--	--	--	--	--	43.8	--	--	--	2,840	--	4,064	4,040	--
		6/23/2021	ND	ND	--	ND	ND	ND	ND	56.9	ND	--	--	--	--	--	--	--	--	--	--	--	38.6	--	--	--	2,740	--	3,966	3,510	--
		4/21/2022	ND	ND	--	ND	ND	ND	ND	53.4	ND	--	--	--	--	--	--	--	--	--	--	--	42.8	--	--	--	2,680	--	3,603	3,410	--
		6/19/2023	ND	ND	--	ND	ND	ND	ND	38.2	ND	--	--	--	--	--	--	--	--	--	--	--	37.3	--	--	--	2,060	--	3,219	1,430	5.97
	6/12/2024	ND	ND	--	ND	ND	ND	ND	40.0	ND	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	1,710	--	2,948	2,180	5.82	

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters													General Parameters						
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8				
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--	--
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	400-No Limit	6.5 - 8.5
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05		200		
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units	
Domenico #1 WellSite	DM1-MW01	3/19/2013	ND	ND	--	ND	ND	0.0253	ND	--	ND	86	ND	93.1	3.4	254	1.83	ND	484	484	4.8	136	ND	ND	ND	494	ND	1,970	--	7.50	
		7/29/2014	ND	ND	--	ND	ND	ND	ND	--	ND	53	ND	56.9	1.64	175	0.853	ND	305	305	3	92.0	ND	ND	ND	373	--	1,023	--	7.36	
		3/31/2015	ND	ND	--	ND	ND	0.0625	ND	--	ND	34	ND	53	1.72	145	0.71	ND	351	351	2.1	72.2	ND	ND	ND	183	--	1,189	--	7.52	
		6/24/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	33	ND	41.1	1.9	78.7	0.713	ND	209	209	ND	48.1	ND	ND	ND	122	--	801	--	7.27	
		5/23/2017	ND	ND	--	ND*	ND	0.213	ND*	--	ND*	55	ND	69.3	2.54	143	1.07	ND	410	410	1.66	76.9	ND	ND	ND	180	--	1,271	--	7.53	
		6/29/2018	ND	ND	--	ND	ND	0.0505	ND*	--	ND*	40	ND	52.6	2.47	115	0.719	ND	241	241	ND	74.3	ND	ND	ND	193	--	--	--	--	
		6/3/2019	ND	ND	--	ND	ND	0.0529	ND	--	ND	52	ND	74.2	3.04	144	1.12	ND	407	407	ND	78.4	ND	ND	ND	181	--	1,163	--	7.46	
		6/8/2020	ND	ND	--	ND	ND	0.0438	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	96.3	--	--	--	219	--	1,445	793	7.30	
		6/17/2021	ND	ND	--	ND	ND	0.0149	ND	21.6	ND	--	--	--	--	--	--	--	--	--	--	100	--	--	--	221	--	1,723	958	7.50	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	23.1	ND	--	--	--	--	--	--	--	--	--	--	120	--	--	--	230	--	1,641	939	9.70	
		6/20/2023	ND	ND	--	ND	ND	ND	ND	26.0	ND	--	--	--	--	--	--	--	--	--	--	118	--	--	--	354	--	1,624	1,200	7.30	
		6/13/2024	ND	ND	--	ND	ND	0.0829	ND	23.9	ND	--	--	--	--	--	--	--	--	--	--	104	--	--	--	ND	--	1,676	1,030	7.40	
	DM1-MW02	3/19/2013	ND	ND	--	ND	ND	0.0071	ND	--	ND	58	ND	84.8	6.21	214	0.965	ND	307	307	3.4	123	ND	ND	ND	492	ND	1,720	--	7.50	
		7/29/2014	ND	ND	--	ND	ND	0.0291	ND	--	ND	114	ND	93.2	6.46	276	1.59	ND	525	525	4.6	157	1.4	0.13	1.6	685	--	2,215	--	7.13	
		3/31/2015	ND	ND	--	ND	ND	ND	ND	--	ND	83	ND	68.6	4.67	215	0.986	ND	529	529	4.1	112	ND	ND	--	339	--	1,750	--	7.32	
		6/24/2016	ND	ND	--	ND*	ND	0.0433	ND*	--	ND*	68	ND	58	5.67	119	1.12	ND	330	330	1.25	61.1	ND	ND	ND	185	--	1,176	--	7.01	
		5/23/2017	ND	ND	--	ND*	ND	0.0152	ND*	--	ND*	66	ND	55.8	5.55	127	0.729	ND	330	330	1.15	80.4	0.44	ND	0.44	185	--	1,217	--	7.32	
		6/29/2018	ND	ND	--	ND	ND	0.0675	ND*	--	ND*	71	ND	52.9	4.93	159	0.837	ND	386	386	1.33	76.9	ND	ND	ND	196	--	--	--	--	
		6/3/2019	ND	ND	--	ND	ND	0.173	ND	--	ND	85	ND	65.6	3.2	164	0.945	ND	367	367	ND	89.5	ND	ND	ND	286	--	1,278	--	7.50	
		6/8/2020	ND	ND	--	ND	ND	ND	ND	29.9	ND	--	--	--	--	--	--	--	--	--	--	106	--	--	--	271	--	1,565	858	7.20	
		6/17/2021	ND	ND	--	ND	ND	ND	ND	28.2	ND	--	--	--	--	--	--	--	--	--	--	137	--	--	--	333	--	1,800	1,080	7.30	
		4/21/2022	ND	ND	--	ND	ND	0.0629	ND	28.2	ND	--	--	--	--	--	--	--	--	--	--	121	--	--	--	416	--	1,763	1,050	9.46	
		6/20/2023	ND	ND	--	ND	ND	ND	ND	53.6	ND	--	--	--	--	--	--	--	--	--	--	143	--	--	--	450	--	2,006	1,430	6.99	
		6/13/2024	ND	ND	--	ND	ND	0.101	ND	37.0	ND	--	--	--	--	--	--	--	--	--	--	174	--	--	--	235	--	1,950	1,110	7.21	
	DM1-MW03	3/19/2013	ND	ND	--	ND	ND	ND	ND	--	ND	99	ND	55.1	3.18	161	2.14	ND	284	284	2.2	91.5	0.27	ND	0.3	448	ND	1,640	--	7.40	
		7/29/2014	ND	ND	--	ND	ND	0.0119	ND	--	ND	89	ND	51.5	1.76	145	1.11	ND	275	275	2.7	91.1	2.8	ND	2.8	423	--	1,293	--	7.09	
		4/1/2015	ND	ND	--	ND	ND	ND	ND	--	ND	116	ND	70.3	1.96	167	1.12	ND	287	287	2.8	108	3.5	ND	3.5	577	--	1,722	--	7.11	
		6/24/2016	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	160	ND	86	2.4	203	1.8	ND	288	288	2.06	110	4.38	ND	4.38	604	--	2,031	--	7.21	
		5/23/2017	ND	ND	--	ND*	ND	ND*	ND*	--	ND*	145	ND	77.5	2.25	193	1.28	ND	258	258	1.31	121	5.83	ND	5.83	589	--	1,862	--	7.02	
		6/29/2018	ND	ND	--	ND	ND	ND*	ND*	--	ND*	70	ND	37.5	1.61	129	0.628	ND	195	195	ND	72	1.1	ND	1.1	255	--	--	--	--	
		6/3/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND*	84	ND	46.4	2.08	122	0.79	ND	216	216	ND	90	0.432	ND	0.432	282	--	1,092	--	7.52	
		6/8/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	98.7	--	--	--	248	--	1,212	637	7.30	
		6/17/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	121	--	--	--	367	--	1,577	996	7.20	
		4/21/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	109	--	--	--	297	--	1,577	789	7.20	
		6/20/2023	ND	ND	--	ND	ND	ND	ND	42.8	ND	--	--	--	--	--	--	--	--	--	--	127	--	--	--	379	--	1,534	1,060	7.00	
		6/13/2024	ND	ND	--	ND	ND	ND	ND	34.2	ND	--	--	--	--	--	--	--	--	--	--	161	--	--	--	655	--	2,236	1,460	7.04	

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters														General Parameters					
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6					14808-79-8	18496-25-8			
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	--	430.625	--	--	--	--
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05			400-No Limit	6.5 - 8.5
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
Stamp 31-2C Wellsite	S31-MW01	3/7/2022	ND	ND	--	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15,147	--	7.87
		8/3/2023	ND	ND		ND	ND	ND	ND	47.6	ND	--	--	--	--	--	--	--	--	--	--	--	223	--	--	--	12,200	--	15,969	18,600	7.45
		11/6/2024	ND	ND	--	ND	ND	ND	ND	65.1	ND	--	--	--	--	--	--	--	--	--	--	--	215	--	--	--	12,300		8,922	20,700	7.26
	S31-MW02	3/7/2022	ND	ND	--	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9,367	--	7.90
		6/23/2023	ND	ND		ND	ND	ND	ND	29.9	ND	--	--	--	--	--	--	--	--	--	--	--	172	--	--	--	7,400	--	11,168	7,420	7.46
		11/6/2024	ND	ND	--	ND	ND	ND	ND	51.5	ND	--	--	--	--	--	--	--	--	--	--	--	177	--	--	--	6,390		10,585	11,100	7.14
	S31-MW03	3/7/2022	ND	ND	--	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16,198	--	8.29
		8/3/2023	ND	ND	--	ND	ND	ND	ND	28.9	ND	--	--	--	--	--	--	--	--	--	--	--	392	--	--	--	11,800	--	16,168	19,200	7.43
		11/6/2024	ND	ND	--	ND	ND	ND	ND	31.4	ND	--	--	--	--	--	--	--	--	--	--	--	365	--	--	--	11,900		17,182	19,900	7.43
	S31-MW04	3/7/2022	ND	ND	--	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11,832	--	8.08
		8/3/2023	ND	ND	--	ND	ND	ND	ND	31.9	ND	--	--	--	--	--	--	--	--	--	--	--	230	--	--	--	9,660	--	12,973	14,800	7.48
		11/6/2024	ND	ND	--	ND	ND	ND	ND	43.9	ND	--	--	--	--	--	--	--	--	--	--	--	236	--	--	--	9,190		14,708	16,000	7.22
	S31-MW05	3/7/2022	ND	ND	--	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11,994	--	8.00
		6/23/2023	ND	ND	--	ND	ND	ND	ND	130	ND	--	--	--	--	--	--	--	--	--	--	--	293	--	--	--	5,770	--	9,774	5,220	7.16
		11/6/2024	ND	ND	--	ND	ND	0.0130	ND	271	ND	--	--	--	--	--	--	--	--	--	--	--	343	--	--	--	5,220		10,569	10,100	6.82
	S31-MW06	3/7/2022	ND	ND	--	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13,551	--	7.97
		8/3/2023	ND	ND	--	ND	ND	ND	ND	32.3	ND	--	--	--	--	--	--	--	--	--	--	--	110	--	--	--	9,710	--	12,447	12,600	7.07
		11/6/2024	ND	ND	--	ND	ND	ND	ND	120	ND	--	--	--	--	--	--	--	--	--	--	--	229	--	--	--	8,200		13,029	14,100	6.97
Stamp #1	ST1-MW02	7/7/2021	ND	ND	--	ND	ND	ND	ND	26.2	ND	--	--	--	--	--	--	--	--	--	--	--	662	--	--	--	12,500	--	18,667	20,300	7.70
		4/25/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	749	--	--	--	15,400	--	19,076	14,900	7.86
		8/3/2023	ND	ND	--	ND	ND	ND	ND	20.1	ND	--	--	--	--	--	--	--	--	--	--	--	974	--	--	--	16,000	--	21,062	27,400	7.47
		11/7/2024	ND	ND	--	ND	ND	ND	ND	22.3	ND	--	--	--	--	--	--	--	--	--	--	--	912	--	--	--	14,800		21,566	26,900	7.53
	ST1-MW03	7/7/2021	ND	ND	--	ND	ND	ND	ND	26.4	ND	--	--	--	--	--	--	--	--	--	--	--	131	--	--	--	6,490	--	10,236	9,760	7.60
		4/25/2022	ND	ND	--	ND	ND	ND	ND	22	ND	--	--	--	--	--	--	--	--	--	--	--	122	--	--	--	6,270	--	10,091	7,400	7.91
		6/23/2023	ND	ND	--	ND	ND	ND	ND	36.1	ND	--	--	--	--	--	--	--	--	--	--	--	170	--	--	--	7,840	--	11,360	8,720	7.41
		11/7/2024	ND	ND	--	ND	ND	ND	ND	27.0	ND	--	--	--	--	--	--	--	--	--	--	--	155	--	--	--	7,290		11,896	12,400	7.27
	ST1-MW05	7/7/2021	ND	ND	--	ND	ND	ND	ND	29.8	ND	--	--	--	--	--	--	--	--	--	--	--	917	--	--	--	15,600	--	21,596	24,400	7.70
		4/25/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	1,150	--	--	--	18,200	--	21,596	18,700	7.70
		8/3/2023	ND	ND	--	ND	ND	ND	ND	38.9	ND	--	--	--	--	--	--	--	--	--	--	--	2,550	--	--	--	19,500	--	27,306	33,500	7.42
		11/6/2024	ND	ND	--	ND	ND	ND	ND	48.8	ND	--	--	--	--	--	--	--	--	--	--	--	2,060	--	--	--	19,400		29,512	36,600	7.32

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters															General Parameters				
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH	
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8				
CECMC Table 910-1 Standards			0.005	0.7	---	0.56	1.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	49.38	---	---	---	---	430.625	---	---	---	---
CDPHE Basic Standards for Groundwater			---	---	---	1 ^M	10 ^M	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05			400-No Limit	6.5 - 8.5
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
George Mayeda #1	GM1-MW01	6/4/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND	96	ND	80.9	3.84	146	2.08	ND	376	376	ND	24.8	7.26	ND	7.26	410	--	1,560	--	7.65	
		5/26/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	32.1	--	--	--	411	--	816	941	7.04	
		6/21/2021	ND	ND	--	ND	ND	ND	ND	23.5	ND	--	--	--	--	--	--	--	--	--	--	19.0	--	--	--	307	--	1,212	796	7.70	
		4/26/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	19.0	--	--	--	307	--	1,492	1,130	7.77	
		6/28/2023	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	20.9	--	--	--	271	--	1,001	733	7.52	
		6/18/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	24.5	--	--	--	355	--	1,264	849	7.60	
	GM1-MW02	6/4/2019	ND	ND	--	ND	ND	ND*	ND*	--	ND	88.9	ND	82.8	3.54	141	3.08	ND	401	401	ND	32.3	8.15	ND	8.15	550	--	1,325	--	7.88	
		5/26/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	27.8	--	--	--	429	--	1,722	875	7.22	
		6/21/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	29.5	--	--	--	427	--	1,347	924	7.90	
		4/26/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	27.5	--	--	--	416	--	1,399	918	8.01	
		6/28/2023	ND	ND	--	ND	ND	ND	ND	24.8	ND	--	--	--	--	--	--	--	--	--	--	30.4	--	--	--	310	--	1,159	803	7.39	
		6/18/2024	ND	ND	--	ND	ND	ND	ND	23.7	ND	--	--	--	--	--	--	--	--	--	--	25.1	--	--	--	123	--	1,248	910	7.53	
	GM1-MW03	6/3/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	191	ND	178	4.47	306	6.08	ND	311	311	ND	34.5	9.23	ND	9.23	989	--	1,330	--	7.92	
		5/26/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	29.6	--	--	--	493	--	1,479	1,040	7.39	
		6/21/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	22.9	--	--	--	499	--	1,250	1,010	7.80	
		4/26/2022	ND	ND	--	ND	ND	ND	ND	47.2	ND	--	--	--	--	--	--	--	--	--	--	33.9	--	--	--	816	--	1,866	1,180	8.21	
		6/28/2023	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	42.6	--	--	--	387	--	1,375	1,050	7.54	
		6/18/2024	ND	ND	--	ND	ND	ND	ND	56.0	ND	--	--	--	--	--	--	--	--	--	--	31.6	--	--	--	644	--	1,649	1,080	7.53	
Matuyama #1	MY1-MW01	5/16/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	119	ND	80.1	3.33	98.4	4.8	ND	371	371	ND	31.1	4.28	ND	4.28	344	344	1,260	--	7.50	
		5/27/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	31.4	--	--	--	321	--	1,298	904	7.19	
		6/15/2021	ND	ND	--	ND	ND	ND	ND	22.7	ND	--	--	--	--	--	--	--	--	--	--	41.3	--	--	--	398	--	1,478	1,000	7.20	
		4/26/2022	ND	ND	--	ND	ND	ND	ND	23.4	ND	--	--	--	--	--	--	--	--	--	--	42.2	--	--	--	346	--	1,811	899	7.56	
		6/28/2023	ND	ND	--	ND	ND	ND	ND	25.5	ND	--	--	--	--	--	--	--	--	--	--	36.8	--	--	--	345	--	1,367	1,010	7.39	
		6/17/2024	ND	ND	--	ND	ND	ND	ND	40.7	ND	--	--	--	--	--	--	--	--	--	--	34.9	--	--	--	250	--	1,257	960	7.33	
	MY1-MW02	5/16/2019	ND	ND	ND	ND	ND	ND	ND		ND	115	ND	77.7	3.28	95.1	4.74	ND	371	371	ND	31.2	4.3	ND	4.3	350	350	1,310	--	7.49	
		5/27/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	31.4	--	--	--	324	--	1,398	893	7.12	
		6/15/2021	ND	ND	--	ND	ND	ND	ND	21.3	ND	--	--	--	--	--	--	--	--	--	--	41.7	--	--	--	389	--	1,514	1,040	7.10	
		4/26/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	42.3	--	--	--	343	--	1,466	896	7.55	
		6/28/2023	ND	ND	--	ND	ND	ND	ND	52.3	ND	--	--	--	--	--	--	--	--	--	--	36.2	--	--	--	353	--	1,373	912	7.30	
		6/17/2024	ND	ND	--	ND	ND	ND	ND	64.5	ND	--	--	--	--	--	--	--	--	--	--	35.8	--	--	--	250	--	1,241	980	7.31	
	MY1-MW03	5/16/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	115	ND	76.9	3.21	97.2	5.57	ND	389	389	ND	31.0	4.53	ND	4.53	355	355	1,270	--	7.43	
		5/27/2020	ND	ND	--	ND	ND	ND	ND	20.1	ND	--	--	--	--	--	--	--	--	--	--	33.3	--	--	--	336	--	1,346	934	7.12	
		6/15/2021	ND	ND	--	ND	ND	ND	ND	23.5	ND	--	--	--	--	--	--	--	--	--	--	42.1	--	--	--	389	--	1,492	978	7.10	
		4/26/2022	ND	ND	--	ND	ND	ND	ND	46.4	ND	--	--	--	--	--	--	--	--	--	--	43.9	--	--	--	370	--	1,507	936	7.65	
		6/28/2023	ND	ND	--	ND	ND	ND	ND	82.2	ND	--	--	--	--	--	--	--	--	--	--	36.3	--	--	--	358	--	1,420	876	7.34	
		6/17/2024	ND	ND	--	ND	ND	ND	ND	136	ND	--	--	--	--	--	--	--	--	--	--	28.0	--	--	--	262	--	1,271	865	7.28	

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters													General Parameters					
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8			
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	430.625	--	--	--	--
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05			200
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
Tabor #1	TB1-MW01	5/16/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	477	ND	482	15.3	734	6.54	ND	441	441	ND	124	ND	ND	ND	4,030	4,030	5,586	--	7.25
		4/19/2022	ND	ND	ND	ND	ND	ND	ND	66.0	ND	--	--	--	--	--	--	--	--	--	--	118	--	--	--	4,150	--	6,311	4,950	7.79
		6/27/2023	ND	ND	--	ND	ND	ND	ND	67.1	ND	--	--	--	--	--	--	--	--	--	--	124	--	--	--	3,530	--	5,804	3,520	7.09
		6/14/2024	ND	ND	--	ND	ND	ND	ND	88.1	ND	--	--	--	--	--	--	--	--	--	--	118	--	--	--	3,570	--	5,984	5,490	6.98
	TB1-MW02	5/16/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	349	ND	318	2.79	657	6.51	ND	385	385	ND	298	7.43	ND	7.43	2,560	2,560	4,692	--	7.17
		6/16/2021	ND	ND	--	ND	ND	ND	ND	39.7	ND	--	--	--	--	--	--	--	--	--	--	400	--	--	--	2,620	--	5,476	4,900	7.10
		4/19/2022	ND	ND	--	ND	ND	ND	ND	39.0	ND	--	--	--	--	--	--	--	--	--	--	375	--	--	--	2,240	--	4,903	3,150	8.63
		6/27/2023	ND	ND	--	ND	ND	ND	ND	48.1	ND	--	--	--	--	--	--	--	--	--	--	228	--	--	--	1,270	--	3,647	2,280	7.38
	TB1-MW03R	6/14/2024	ND	ND	--	ND	ND	ND	ND	69.6	ND	--	--	--	--	--	--	--	--	--	--	436	--	--	--	2,180	--	5,094	4,860	6.96
		6/16/2021	ND	ND	--	ND	ND	ND	ND	33.3	ND	--	--	--	--	--	--	--	--	--	--	181	--	--	--	5,480	--	8,417	8,830	7.40
		4/19/2022	ND	ND	--	ND	ND	ND	ND	26.4	ND	--	--	--	--	--	--	--	--	--	--	199	--	--	--	5,400	--	8,410	5,010	8.30
		6/27/2023	ND	ND	--	ND	ND	ND	ND	77.7	ND	--	--	--	--	--	--	--	--	--	--	192	--	--	--	4,770	--	7,823	6,590	7.09
	6/14/2024	ND	ND	--	ND	ND	ND	ND	75.6	ND	--	--	--	--	--	--	--	--	--	--	188	--	--	--	4,280	--	4,707	6,460	6.80	
Tabor #7	TB7-MW01	5/17/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	127	ND	91.5	2.98	96.3	2.78	ND	313	313	ND	41.5	6.47	ND	6.47	448	448	1,334	--	7.48
		6/3/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	38.3	--	--	--	445	--	1,566	1,140	--
		6/16/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	44.0	--	--	--	431	--	1,562	1,050	7.60
		4/18/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	43.0	--	--	--	461	--	1,562	1,050	7.60
		6/21/2023	ND	ND	--	ND	ND	ND	ND	21.5	ND	--	--	--	--	--	--	--	--	--	--	50.5	--	--	--	438	--	1,560	1,120	8.19
		6/14/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	41.7	--	--	--	324	--	1,305	920	7.38
	TB7-MW02	5/17/2019	ND	ND	ND	ND	ND	ND	ND		ND	132	ND	97.6	2.5	96.1	3.39	ND	348	348	ND	44.9	5.61	ND	5.61	460	460	1,442	--	7.50
		6/3/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	40.5	--	--	--	422	--	1,550	1,080	--
		6/16/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	47.2	--	--	--	442	--	1,529	1,060	7.50
		4/18/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	46.8	--	--	--	441	--	1,535	1,020	7.75
		6/21/2023	ND	ND	--	ND	ND	ND	ND	24.6	ND	--	--	--	--	--	--	--	--	--	--	49.2	--	--	--	427	--	1,609	1,090	7.97
		6/14/2024	ND	ND	--	ND	ND	ND	ND	28.6	ND	--	--	--	--	--	--	--	--	--	--	55.8	--	--	--	407	--	1,555	1,150	7.37
	TB7-MW03	5/17/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	134	ND	99.3	2.3	96.3	2.5	ND	348	348	ND	46.1	5.5	ND	5.5	466	466	1,387	--	7.53
		6/3/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	42.3	--	--	--	425	--	1,770	1,140	--
		6/16/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	49.5	--	--	--	437	--	1,551	1,050	7.50
		4/18/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	49.5	--	--	--	437	--	1,551	1,050	7.50
		6/21/2023	ND	ND	--	ND	ND	ND	ND	25.3	ND	--	--	--	--	--	--	--	--	--	--	48.1	--	--	--	420	--	1,627	1,100	7.13
		6/17/2024	ND	ND	--	ND	ND	ND	ND	26.7	ND	--	--	--	--	--	--	--	--	--	--	57.8	--	--	--	391	--	1,638	1,150	7.31
Wertman #1	WT1-MW01	5/16/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	58.3	ND	36.6	4.21	63	1.8	ND	256	256	ND	19.5	0.678	ND	0.678	139	139	633	--	7.63
		5/28/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	59.2	--	--	--	291	--	1,509	824	6.97
		6/28/2021	ND	ND	--	ND	ND	ND	ND	28.2	ND	--	--	--	--	--	--	--	--	--	--	41.8	--	--	--	272	--	1,326	676	7.30
		4/18/2022	ND	ND	--	ND	ND	ND	ND	24.9	ND	--	--	--	--	--	--	--	--	--	--	24.5	--	--	--	175	--	854	479	7.85
		6/21/2023	ND	ND	--	ND	ND	ND	ND	76.2	ND	--	--	--	--	--	--	--	--	--	--	28.8	--	--	--	170	--	1,636	651	7.72
		6/18/2024	ND	ND	--	ND	ND	ND	ND	25.0	ND	--	--	--	--	--	--	--	--	--	--	16.2	--	--	--	110	--	601	411	7.18
	WT1-MW02	5/16/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	60.8	ND	44.9	3.04	65.2	1.44	ND	281	281	ND	28.1	0.385	ND	0.385	185	185	633	--	7.39
		5/28/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	37.8	--	--	--	335	--	1,263	798	6.81
		6/28/2021	ND	ND	--	ND	ND	ND	ND	40	ND	--	--	--	--	--	--	--	--	--	--	40.3	--	--	--	377	--	1,523	888	7.30
		4/18/2022	ND	ND	--	ND	ND	ND	ND	24.3	ND	--	--	--	--	--	--	--	--	--	--	31.9	--	--	--	222	--	1,093	586	7.75
		6/21/2023	ND	ND	--	ND	ND	ND	ND	38.1	ND	--	--	--	--	--	--	--	--	--	--	51.7	--	--	--	497	--	1,703	1,070	4.50
		6/18/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	23.1	--	--	--	202	--	927	616	7.08
	WT1-MW03	5/16/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	53	ND	42.5	1.14	68.2	1.34	ND	231	231	ND	23.8	0							

Table 2 - Groundwater Analytical Results
City of Longmont - Groundwater Quality Monitoring
Project Number 22227034

			Volatile Organic Compounds					Other Organic Compounds				Inorganic Parameters															General Parameters			
Parameter			Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes (Total)	Methane	Ethane	Carbon Dioxide	Ethene	Calcium, Dissolved	Iron, Dissolved	Magnesium, Dissolved	Potassium, Dissolved	Sodium, Dissolved	Strontium	Alkalinity, Carbonate (CaCO3)	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Total as CaCO3	Bromide	Chloride	Nitrogen as Nitrate	Nitrogen as Nitrite	Nitrogen as Nitrate and Nitrite	Sulfate	Sulfide, Total	Specific Conductance	Total Dissolved Solids (TDS)	pH
CAS #			71-43-2	100-41-4	91-20-3	108-88-3	1330-20-7	74-82-8	74-84-0		74-85-1	7440-70-2	7439-89-6	7439-95-4	7440-09-7	7440-23-5	7440-24-6				24959-67-9	16887-00-6				14808-79-8	18496-25-8			
CECMC Table 910-1 Standards			0.005	0.7	--	0.56	1.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49.38	--	--	--	430.625	--	--	--	--
CDPHE Basic Standards for Groundwater			--	--	--	1 ^M	10 ^M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	400-No Limit	6.5 - 8.5
Detection Level			0.001	0.001	0.005	0.001	0.003	0.0066	0.0062	20	0.0062		0.05					20	20	20	1		0.1	0.5	0.1		0.05		200	
Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	umhos/cm	mg/L	Std. Units
Mary #2	MR2-MW01	5/15/2019	ND	ND	ND	ND	ND	ND	ND	--	ND	362	ND	273	8.35	500	8.06	ND	481	481	ND	130	65	ND	65	1,950	1,950	1,983	--	7.02
		5/27/2020	ND	ND	--	ND	ND	ND	ND	20.3	ND	--	--	--	--	--	--	--	--	--	--	129	--	--	--	1,990	--	4,492	3,900	6.86
		6/15/2021	ND	ND	--	ND	ND	ND	ND	37.7	ND	--	--	--	--	--	--	--	--	--	--	138	--	--	--	1,970	--	4,350	3,710	7.30
		4/18/2022	ND	ND	--	ND	ND	ND	ND	63.5	ND	--	--	--	--	--	--	--	--	--	--	128	--	--	--	2,170	--	--	3,180	--
		6/27/2023	ND	ND	--	ND	ND	ND	ND	62.2	ND	--	--	--	--	--	--	--	--	--	--	122	--	--	--	1,880	--	4,456	3,810	7.14
		6/14/2024	ND	ND	--	ND	ND	ND	ND	22.1	ND	--	--	--	--	--	--	--	--	--	--	131	--	--	--	1,970	--	4,338	3,840	7.05
	MR2-MW02	5/15/2019	ND	ND	ND	ND	ND	0.0559	ND	--	ND	35.1	ND	26.1	4.73	162	2.67	ND	419	419	ND	5.78	1.11	ND	1.11	90.7	90.7	3,290	--	6.91
		5/27/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	5.63	--	--	--	100	--	1,002	600	7.30
		6/15/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	5.35	--	--	--	94.6	--	987	569	7.80
		4/18/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	5.49	--	--	--	92.6	--	958	550	8.17
		6/27/2023	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	16.2	--	--	--	90.9	--	1,000	570	7.54
		6/14/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	23.4	--	--	--	81.4	--	1,116	587	7.60
	MR2-MW03	5/15/2019	ND	ND	ND	ND	ND	0.0292	ND	--	ND	107	ND	82.3	10.1	243	4.48	ND	468	468	ND	33.1	4	ND	4	522	522	1,184	--	7.49
		5/27/2020	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	36.3	--	--	--	602	--	1,766	1,340	7.24
		6/15/2021	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	32.8	--	--	--	527	--	1,764	1,130	7.70
		4/18/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	32.6	--	--	--	509	--	1,736	1,140	8.61
		6/27/2023	ND	ND	--	ND	ND	ND	ND	22.7	ND	--	--	--	--	--	--	--	--	--	--	33.6	--	--	--	509	--	1,744	1,180	7.51
		6/14/2024	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	17.2	--	--	--	198	--	1,320	761	7.47
Rider #1	RD1-MW01	4/25/2022	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	45.7	--	--	--	339	--	1,402	932	7.73
		6/28/2023	ND	ND	--	ND	ND	ND	ND	49.1	ND	--	--	--	--	--	--	--	--	--	--	54.0	--	--	--	302	--	1,336	914	7.30
		6/18/2024	ND	ND	--	ND	ND	ND	ND	115	ND	--	--	--	--	--	--	--	--	--	--	39.0	--	--	--	292	--	1,336	1,000	7.35
	RD1-MW02	4/25/2022	ND	ND	--	ND	ND	ND	ND	47.2	ND	--	--	--	--	--	--	--	--	--	--	52.0	--	--	--	325	--	1,404	890	7.82
		6/28/2023	ND	ND	--	ND	ND	ND	ND	37.8	ND	--	--	--	--	--	--	--	--	--	--	56.5	--	--	--	326	--	1,388	888	7.32
		6/18/2024	ND	ND	--	ND	ND	ND	ND	40.3	ND	--	--	--	--	--	--	--	--	--	--	41.6	--	--	--	287	--	1,344	930	7.32
	RD1-MW03	4/25/2022	ND	ND	--	ND	ND	ND	ND	47.8	ND	--	--	--	--	--	--	--	--	--	--	47.7	--	--	--	342	--	1,435	938	7.93
		6/28/2023	ND	ND	--	ND	ND	ND	ND	28.9	ND	--	--	--	--	--	--	--	--	--	--	56.0	--	--	--	368	--	1,440	930	7.33
		6/18/2024	ND	ND	--	ND	ND	ND	ND	30.0	ND	--	--	--	--	--	--	--	--	--	--	42.5	--	--	--	325	--	1,341	1,090	7.32

¹ Wells were observed to be destroyed. Unable to measure depths to water.

² The aluminum collar around the well casing was bent and the concrete surface completion was found separated, the well was not sampled.
The bentonite seal may be compromised; however, the analytical data does not indicate that the well is compromised.

³ The CECMC cleanup standard for chloride and sulfate is 1.25 x background. Background concentrations from unimpacted wells were used to average and calculate an appropriate background concentration for this area.
RD1 samples collected on 6/23/2016 had to be recollected for nitrite and nitrate analysis due to a shipping delay resulting in the original samples being past the hold time of 48 hours.

CECMC - Colorado Energy & Carbon Management Commission

CDPHE - Colorado Department of Public Health and Environment

mg/L - milligrams per liter

ND - Parameter not detected above the laboratory detection limit (Detection Limit)

Bold indicates detected constituents

Yellow shading indicates constituents above CECMC Table 910-1 standards.

Red shading indicates constituents detected above CDPHE standards

Grey shading indicates analytical results from the current calendar year

umhos/cm - microsiemens per centimeter

M - Drinking water maximum contaminant level

-- Not Sampled

Bkg - Background

--- indicates no regulatory standard

Appendix B – Analytical Reports & Chain Of Custody Documents

Terracon - Longmont, CO

Sample Delivery Group: L1747155
Samples Received: 06/14/2024
Project Number: 22237009
Description: COL Annual GW Sampling

Report To: Travis Whalen
1831 Lefthand Circle
Suite B
Longmont, CO 80501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
EGT-MW01 L1747155-01	6
EGT-MW02 L1747155-02	7
EGT-MW03 L1747155-03	8
LM8-MW01 L1747155-04	9
LM8-MW02 L1747155-05	10
LM8-MW03 L1747155-06	11
DMI-MW01 L1747155-07	12
DMI-MW02 L1747155-08	13
DMI-MW03 L1747155-09	14
Qc: Quality Control Summary	15
Gravimetric Analysis by Method 2540 C-2011	15
Wet Chemistry by Method 300.0	17
Wet Chemistry by Method 4500CO2 D-2011	20
Volatile Organic Compounds (GC) by Method RSK175	21
Volatile Organic Compounds (GC/MS) by Method 8260B	22
Gl: Glossary of Terms	23
Al: Accreditations & Locations	24
Sc: Sample Chain of Custody	25

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

EGT-MW01 L1747155-01 GW

				Collected by Travis Whalen	Collected date/time 06/12/24 11:55	Received date/time 06/14/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	10	06/18/24 13:25	06/18/24 13:25	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 12:18	06/20/24 12:18	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:33	06/24/24 09:33	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 02:31	06/21/24 02:31	JTO	Mt. Juliet, TN

EGT-MW02 L1747155-02 GW

				Collected by Travis Whalen	Collected date/time 06/12/24 11:10	Received date/time 06/14/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2307883	1	06/19/24 13:36	06/19/24 16:07	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	10	06/18/24 13:51	06/18/24 13:51	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	100	06/18/24 14:03	06/18/24 14:03	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 12:30	06/20/24 12:30	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:36	06/24/24 09:36	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 02:52	06/21/24 02:52	JTO	Mt. Juliet, TN

EGT-MW03 L1747155-03 GW

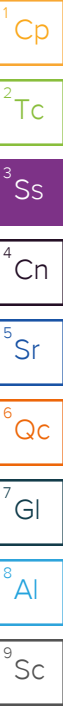
				Collected by Travis Whalen	Collected date/time 06/12/24 10:30	Received date/time 06/14/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	100	06/18/24 14:16	06/18/24 14:16	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 12:35	06/20/24 12:35	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:40	06/24/24 09:40	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 03:15	06/21/24 03:15	JTO	Mt. Juliet, TN

LM8-MW01 L1747155-04 GW

				Collected by Travis Whalen	Collected date/time 06/12/24 12:45	Received date/time 06/14/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	100	06/18/24 14:42	06/18/24 14:42	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 12:37	06/20/24 12:37	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:43	06/24/24 09:43	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 03:37	06/21/24 03:37	JTO	Mt. Juliet, TN

LM8-MW02 L1747155-05 GW

				Collected by Travis Whalen	Collected date/time 06/12/24 13:25	Received date/time 06/14/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	100	06/18/24 14:54	06/18/24 14:54	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 12:41	06/20/24 12:41	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:46	06/24/24 09:46	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 03:59	06/21/24 03:59	JTO	Mt. Juliet, TN



SAMPLE SUMMARY

LM8-MW03 L1747155-06 GW

Collected by
Travis Whalen

Collected date/time
06/12/24 13:00

Received date/time
06/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	100	06/18/24 15:07	06/18/24 15:07	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 12:43	06/20/24 12:43	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:49	06/24/24 09:49	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 04:21	06/21/24 04:21	JTO	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

DMI-MW01 L1747155-07 GW

Collected by
Travis Whalen

Collected date/time
06/13/24 11:30

Received date/time
06/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	100	06/18/24 15:20	06/18/24 15:20	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 12:46	06/20/24 12:46	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:56	06/24/24 09:56	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 04:43	06/21/24 04:43	JTO	Mt. Juliet, TN

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

DMI-MW02 L1747155-08 GW

Collected by
Travis Whalen

Collected date/time
06/13/24 11:40

Received date/time
06/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	1	06/18/24 15:58	06/18/24 15:58	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2309468	20	06/21/24 16:05	06/21/24 16:05	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:04	06/20/24 13:04	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 09:58	06/24/24 09:58	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 05:05	06/21/24 05:05	JTO	Mt. Juliet, TN

⁹ Sc

DMI-MW03 L1747155-09 GW

Collected by
Travis Whalen

Collected date/time
06/13/24 11:00

Received date/time
06/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2305936	1	06/15/24 17:13	06/17/24 12:11	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	1	06/18/24 16:11	06/18/24 16:11	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2305764	10	06/18/24 16:24	06/18/24 16:24	JDG	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:10	06/20/24 13:10	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310490	1	06/24/24 11:10	06/24/24 11:10	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2308893	1	06/21/24 05:28	06/21/24 05:28	JTO	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2660		50.0	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	72.0		10.0	10	06/18/2024 13:25	WG2305764
Sulfate	1930		50.0	10	06/18/2024 13:25	WG2305764

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 12:18	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747155-01 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 09:33	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:33	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:33	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:33	WG2310490

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 02:31	WG2308893
Toluene	ND		0.00100	1	06/21/2024 02:31	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 02:31	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 02:31	WG2308893
(S) Toluene-d8	91.8		80.0-120		06/21/2024 02:31	WG2308893
(S) 4-Bromofluorobenzene	99.6		77.0-126		06/21/2024 02:31	WG2308893
(S) 1,2-Dichloroethane-d4	96.4		70.0-130		06/21/2024 02:31	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	4530		100	1	06/19/2024 16:07	WG2307883

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	82.6		10.0	10	06/18/2024 13:51	WG2305764
Sulfate	2660		500	100	06/18/2024 14:03	WG2305764

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	24.3	B T8	20.0	1	06/20/2024 12:30	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747155-02 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 09:36	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:36	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:36	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:36	WG2310490

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 02:52	WG2308893
Toluene	ND		0.00100	1	06/21/2024 02:52	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 02:52	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 02:52	WG2308893
(S) Toluene-d8	93.8		80.0-120		06/21/2024 02:52	WG2308893
(S) 4-Bromofluorobenzene	102		77.0-126		06/21/2024 02:52	WG2308893
(S) 1,2-Dichloroethane-d4	92.1		70.0-130		06/21/2024 02:52	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	5200		200	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	110		100	100	06/18/2024 14:16	WG2305764
Sulfate	6860		500	100	06/18/2024 14:16	WG2305764

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	26.1	B T8	20.0	1	06/20/2024 12:35	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747155-03 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 09:40	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:40	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:40	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:40	WG2310490

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 03:15	WG2308893
Toluene	ND		0.00100	1	06/21/2024 03:15	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 03:15	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 03:15	WG2308893
(S) Toluene-d8	95.5		80.0-120		06/21/2024 03:15	WG2308893
(S) 4-Bromofluorobenzene	99.7		77.0-126		06/21/2024 03:15	WG2308893
(S) 1,2-Dichloroethane-d4	93.5		70.0-130		06/21/2024 03:15	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2730		50.0	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	ND		100	100	06/18/2024 14:42	WG2305764
Sulfate	1990		500	100	06/18/2024 14:42	WG2305764

3
Ss

4
Cn

5
Sr

Sample Narrative:

L1747155-04 WG2305764: dilution due to high SO4

6
Qc

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 12:37	WG2308117

7
Gl

8
Al

Sample Narrative:

L1747155-04 WG2308117: Endpoint pH 4.5 headspace

9
Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 09:43	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:43	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:43	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:43	WG2310490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 03:37	WG2308893
Toluene	ND		0.00100	1	06/21/2024 03:37	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 03:37	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 03:37	WG2308893
(S) Toluene-d8	91.7		80.0-120		06/21/2024 03:37	WG2308893
(S) 4-Bromofluorobenzene	99.9		77.0-126		06/21/2024 03:37	WG2308893
(S) 1,2-Dichloroethane-d4	93.3		70.0-130		06/21/2024 03:37	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1900		50.0	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	ND		100	100	06/18/2024 14:54	WG2305764
Sulfate	1390		500	100	06/18/2024 14:54	WG2305764

3
Ss

4
Cn

5
Sr

Sample Narrative:

L1747155-05 WG2305764: dilution due to high SO4

6
Qc

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	64.8	B T8	20.0	1	06/20/2024 12:41	WG2308117

7
Gl

8
Al

Sample Narrative:

L1747155-05 WG2308117: Endpoint pH 4.5 headspace

9
Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 09:46	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:46	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:46	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:46	WG2310490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 03:59	WG2308893
Toluene	ND		0.00100	1	06/21/2024 03:59	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 03:59	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 03:59	WG2308893
(S) Toluene-d8	90.3		80.0-120		06/21/2024 03:59	WG2308893
(S) 4-Bromofluorobenzene	96.7		77.0-126		06/21/2024 03:59	WG2308893
(S) 1,2-Dichloroethane-d4	96.9		70.0-130		06/21/2024 03:59	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2180		50.0	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	ND		100	100	06/18/2024 15:07	WG2305764
Sulfate	1710		500	100	06/18/2024 15:07	WG2305764

3
Ss

4
Cn

5
Sr

Sample Narrative:

L1747155-06 WG2305764: dilution due to high SO4

6
Qc

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	40.0	B T8	20.0	1	06/20/2024 12:43	WG2308117

7
Gl

8
Al

Sample Narrative:

L1747155-06 WG2308117: Endpoint pH 4.5 headspace

9
Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 09:49	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:49	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:49	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:49	WG2310490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 04:21	WG2308893
Toluene	ND		0.00100	1	06/21/2024 04:21	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 04:21	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 04:21	WG2308893
(S) Toluene-d8	95.3		80.0-120		06/21/2024 04:21	WG2308893
(S) 4-Bromofluorobenzene	97.4		77.0-126		06/21/2024 04:21	WG2308893
(S) 1,2-Dichloroethane-d4	95.5		70.0-130		06/21/2024 04:21	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1030		20.0	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	104		100	100	06/18/2024 15:20	WG2305764
Sulfate	ND		500	100	06/18/2024 15:20	WG2305764

3
Ss

4
Cn

Sample Narrative:

L1747155-07 WG2305764: dilution due to matrix

5
Sr

6
Qc

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	23.9	B T8	20.0	1	06/20/2024 12:46	WG2308117

7
Gl

8
Al

Sample Narrative:

L1747155-07 WG2308117: Endpoint pH 4.5 headspace

9
Sc

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	0.0829		0.0100	1	06/24/2024 09:56	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:56	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:56	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:56	WG2310490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 04:43	WG2308893
Toluene	ND		0.00100	1	06/21/2024 04:43	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 04:43	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 04:43	WG2308893
(S) Toluene-d8	94.1		80.0-120		06/21/2024 04:43	WG2308893
(S) 4-Bromofluorobenzene	99.1		77.0-126		06/21/2024 04:43	WG2308893
(S) 1,2-Dichloroethane-d4	94.8		70.0-130		06/21/2024 04:43	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1110		20.0	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	174		1.00	1	06/18/2024 15:58	WG2305764
Sulfate	235		100	20	06/21/2024 16:05	WG2309468

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Free Carbon Dioxide	37.0	B T8	20.0	1	06/20/2024 13:04	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747155-08 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	0.101		0.0100	1	06/24/2024 09:58	WG2310490
Ethane	ND		0.0130	1	06/24/2024 09:58	WG2310490
Ethene	ND		0.0130	1	06/24/2024 09:58	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 09:58	WG2310490

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/21/2024 05:05	WG2308893
Toluene	ND		0.00100	1	06/21/2024 05:05	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 05:05	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 05:05	WG2308893
(S) Toluene-d8	93.3		80.0-120		06/21/2024 05:05	WG2308893
(S) 4-Bromofluorobenzene	98.8		77.0-126		06/21/2024 05:05	WG2308893
(S) 1,2-Dichloroethane-d4	95.1		70.0-130		06/21/2024 05:05	WG2308893

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1460		25.0	1	06/17/2024 12:11	WG2305936

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	161		1.00	1	06/18/2024 16:11	WG2305764
Sulfate	655		50.0	10	06/18/2024 16:24	WG2305764

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	34.2	B T8	20.0	1	06/20/2024 13:10	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747155-09 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 11:10	WG2310490
Ethane	ND		0.0130	1	06/24/2024 11:10	WG2310490
Ethene	ND		0.0130	1	06/24/2024 11:10	WG2310490
Acetylene	ND		0.0208	1	06/24/2024 11:10	WG2310490

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/21/2024 05:28	WG2308893
Toluene	ND		0.00100	1	06/21/2024 05:28	WG2308893
Ethylbenzene	ND		0.00100	1	06/21/2024 05:28	WG2308893
Total Xylenes	ND		0.00300	1	06/21/2024 05:28	WG2308893
(S) Toluene-d8	89.7		80.0-120		06/21/2024 05:28	WG2308893
(S) 4-Bromofluorobenzene	95.9		77.0-126		06/21/2024 05:28	WG2308893
(S) 1,2-Dichloroethane-d4	96.6		70.0-130		06/21/2024 05:28	WG2308893

Method Blank (MB)

(MB) R4083405-1 06/17/24 12:11

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1746605-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1746605-02 06/17/24 12:11 • (DUP) R4083405-3 06/17/24 12:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	701	699	1	0.380		10

L1746605-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1746605-03 06/17/24 12:11 • (DUP) R4083405-4 06/17/24 12:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	483	505	1	4.59		10

Laboratory Control Sample (LCS)

(LCS) R4083405-2 06/17/24 12:11

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8580	97.5	85.0-115	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4084498-1 06/19/24 16:07

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1746781-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1746781-04 06/19/24 16:07 • (DUP) R4084498-3 06/19/24 16:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	607	615	1	1.31		10

L1746781-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1746781-05 06/19/24 16:07 • (DUP) R4084498-4 06/19/24 16:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	302	306	1	1.32		10

Laboratory Control Sample (LCS)

(LCS) R4084498-2 06/19/24 16:07

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8600	97.7	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4083818-1 06/18/24 08:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1742430-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1742430-06 06/18/24 11:55 • (DUP) R4083818-3 06/18/24 12:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	57.9	58.5	5	0.928		15
Sulfate	242	242	5	0.183		15

L1747194-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1747194-03 06/18/24 17:02 • (DUP) R4083818-6 06/18/24 17:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	26.6	26.8	1	0.766		15
Sulfate	10.8	10.9	1	0.668		15

Laboratory Control Sample (LCS)

(LCS) R4083818-2 06/18/24 08:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	37.3	93.2	90.0-110	
Sulfate	40.0	37.5	93.7	90.0-110	

L1742430-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1742430-06 06/18/24 11:55 • (MS) R4083818-4 06/18/24 12:21 • (MSD) R4083818-5 06/18/24 12:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	57.9	83.1	81.0	62.8	57.7	5	80.0-120	J6	J6	2.50	15
Sulfate	40.0	242	225	217	0.000	0.000	5	80.0-120	V	V	3.56	15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1747194-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1747194-03 06/18/24 17:02 • (MS) R4083818-7 06/18/24 17:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	40.0	26.6	59.1	81.5	1	80.0-120	
Sulfate	40.0	10.8	47.1	90.8	1	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4085117-1 06/21/24 09:05

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Sulfate	U		0.594	5.00

L1741976-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1741976-01 06/21/24 22:54 • (DUP) R4085117-3 06/21/24 23:06

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	77.4	72.9	5	5.97		15

Laboratory Control Sample (LCS)

(LCS) R4085117-2 06/21/24 09:18

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Sulfate	40.0	39.2	98.0	90.0-110	

L1741976-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1741976-01 06/21/24 22:54 • (MS) R4085117-4 06/21/24 23:19 • (MSD) R4085117-5 06/21/24 23:31

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Sulfate	40.0	77.4	97.1	96.6	49.3	48.0	5	80.0-120	J6	J6	0.518	15

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4084366-3 06/20/24 12:09

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	15.7	⬇	6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1747155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747155-01 06/20/24 12:18 • (DUP) R4084366-5 06/20/24 12:24

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1747498-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1747498-07 06/20/24 14:33 • (DUP) R4084366-7 06/20/24 14:39

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	21.8	22.4	1	2.91		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5



Method Blank (MB)

(MB) R4085615-2 06/24/24 09:24

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1747155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747155-01 06/24/24 09:33 • (DUP) R4085615-3 06/24/24 11:13

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1747225-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747225-01 06/24/24 11:16 • (DUP) R4085615-4 06/24/24 12:02

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4085615-1 06/24/24 09:21 • (LCSD) R4085615-5 06/24/24 12:05

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0593	0.0718	87.5	106	85.0-115			19.1	20
Ethane	0.129	0.114	0.123	88.4	95.3	85.0-115			7.59	20
Ethene	0.127	0.114	0.125	89.8	98.4	85.0-115			9.21	20
Acetylene	0.208	0.178	0.198	85.6	95.2	85.0-115			10.6	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4084679-2 06/20/24 22:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	91.3			80.0-120
(S) 4-Bromofluorobenzene	99.7			77.0-126
(S) 1,2-Dichloroethane-d4	95.7			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4084679-1 06/20/24 21:04 • (LCSD) R4084679-3 06/20/24 23:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00551	0.00542	110	108	70.0-123			1.65	20
Toluene	0.00500	0.00509	0.00473	102	94.6	79.0-120			7.33	20
Ethylbenzene	0.00500	0.00531	0.00481	106	96.2	79.0-123			9.88	20
Total Xylenes	0.0150	0.0154	0.0142	103	94.7	79.0-123			8.11	20
(S) Toluene-d8				94.1	90.1	80.0-120				
(S) 4-Bromofluorobenzene				99.6	98.3	77.0-126				
(S) 1,2-Dichloroethane-d4				94.2	93.8	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

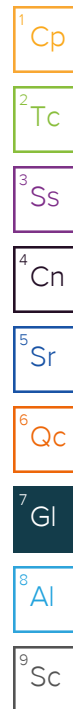
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

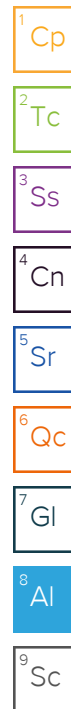
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Terracon - Longmont, CO				Billing Information: Travis Whalen 1831 Lefthand Circle Suite B Longmont, CO 80501				Analysis / Container / Preservative				Chain of Custody Page 1 of 1						
1831 Lefthand Circle Suite B Longmont, CO 80501				Email To: travis.whelen@terracon.com				 MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf				SDG # 1747155 A142						
Report to: Travis Whalen																		
Project Description: COL Annual GW Sampling				City/State Collected: Longmont, CO		Please Circle: PT ☒ MT ☐ CT ☐ ET		CHLORIDE, SULFATE 125mlHDPE-NoPres CO2 40mlAmb-NoPres RSK175 40mlAmb HCl TDS 1L-HDPE NoPres V8260BTEX 40mlAmb-HCl										
Phone: 303-454-5249		Client Project # 22237009		Lab Project # TERRALCO-22237009														
Collected by (print): Travis Whalen		Site/Facility ID #		P.O. #														
Collected by (signature): 		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote # Date Results Needed Standard														
Immediately Packed on Ice N ☐ Y ☒				No. of Cntrs														
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time													
EGT-MW01	Grab	GW	—	6/12/24	1155	9	X	X	X	X	X							
EGT-MW02		GW	—		1110	9	X	X	X	X	X							
EGT-MW03		GW	—		1030	9	X	X	X	X	X							
LM8-MW01		GW	—		1245	9	X	X	X	X	X							
LM8-MW02		GW	—		1325	9	X	X	X	X	X							
LM8-MW03		GW	—		1300	9	X	X	X	X	X							
DMI-MW01		GW	—	6/13/24	1130	9	X	X	X	X	X							
DMI-MW02		GW	—		1140	9	X	X	X	X	X							
DMI-MW03		GW	—		1100	9	X	X	X	X	X							
		GW	—			9	X	X	X	X	X							
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____				Remarks: Samples returned via: ☐ UPS ☒ FedEx ☐ Courier				pH _____ Temp _____ Flow _____ Other _____				Sample Receipt Checklist COC Seal Present/Intact: ☐ NP ☒ N COC Signed/Accurate: ☒ Y ☐ N Bottles arrive intact: ☒ Y ☐ N Correct bottles used: ☒ Y ☐ N Sufficient volume sent: ☒ Y ☐ N If Applicable VOA Zero Headspace: ☒ Y ☐ N Preservation Correct/Checked: ☒ Y ☐ N RAD Screen <0.5 mR/hr: ☒ Y ☐ N						
Relinquished by: (Signature) 		Date: 6/13/24		Time: 1600		Received by: (Signature) Fed Ex		Trip Blank Received: Yes / ☒ No HCL / MeOH TBR										
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: °C 1.12.75 1.4		If preservation required by Login: Date/Time								
Relinquished by: (Signature)		Date:		Time:		Received for Lab by: (Signature) 		Date: 6/14/24		Time: 9:00		Hold:		Condition: NCF / ☒ OK				

Terracon - Longmont, CO

Sample Delivery Group: L1747498
Samples Received: 06/15/2024
Project Number: 22237009
Description: COL Annual GW Sampling

Report To: Travis Whalen
1831 Lefthand Circle
Suite B
Longmont, CO 80501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
MR2-MW01 L1747498-01	6
MR2-MW02 L1747498-02	7
MR2-MW03 L1747498-03	8
PL1-MW01 L1747498-04	9
PL1-MW02 L1747498-05	10
PL1-MW03 L1747498-06	11
EGW-MW01 L1747498-07	12
EGW-MW02 L1747498-08	13
EGW-MW03 L1747498-09	14
Qc: Quality Control Summary	15
Gravimetric Analysis by Method 2540 C-2011	15
Wet Chemistry by Method 300.0	16
Wet Chemistry by Method 4500CO2 D-2011	18
Volatile Organic Compounds (GC) by Method RSK175	19
Volatile Organic Compounds (GC/MS) by Method 8260B	22
Gl: Glossary of Terms	23
Al: Accreditations & Locations	24
Sc: Sample Chain of Custody	25

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

MR2-MW01 L1747498-01 GW

				Collected by Travis Whalen	Collected date/time 06/14/24 13:30	Received date/time 06/15/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 00:23	06/25/24 00:23	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	10	06/25/24 01:03	06/25/24 01:03	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:16	06/20/24 13:16	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310561	1	06/24/24 15:33	06/24/24 15:33	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 19:46	06/22/24 19:46	JAH	Mt. Juliet, TN

MR2-MW02 L1747498-02 GW

				Collected by Travis Whalen	Collected date/time 06/14/24 13:00	Received date/time 06/15/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 01:17	06/25/24 01:17	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:22	06/20/24 13:22	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310561	1	06/24/24 15:36	06/24/24 15:36	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 20:05	06/22/24 20:05	JAH	Mt. Juliet, TN

MR2-MW03 L1747498-03 GW

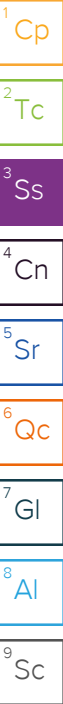
				Collected by Travis Whalen	Collected date/time 06/14/24 13:50	Received date/time 06/15/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 01:44	06/25/24 01:44	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:28	06/20/24 13:28	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310561	1	06/24/24 15:42	06/24/24 15:42	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 20:24	06/22/24 20:24	JAH	Mt. Juliet, TN

PL1-MW01 L1747498-04 GW

				Collected by Travis Whalen	Collected date/time 06/13/24 12:45	Received date/time 06/15/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 02:11	06/25/24 02:11	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	10	06/25/24 02:24	06/25/24 02:24	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:35	06/20/24 13:35	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310561	1	06/24/24 16:18	06/24/24 16:18	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 20:43	06/22/24 20:43	JAH	Mt. Juliet, TN

PL1-MW02 L1747498-05 GW

				Collected by Travis Whalen	Collected date/time 06/13/24 13:25	Received date/time 06/15/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 02:38	06/25/24 02:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	10	06/25/24 02:51	06/25/24 02:51	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:40	06/20/24 13:40	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310564	1	06/24/24 13:59	06/24/24 13:59	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 21:02	06/22/24 21:02	JAH	Mt. Juliet, TN



SAMPLE SUMMARY

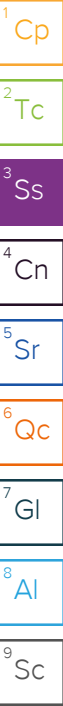
PL1-MW03 L1747498-06 GW

Collected by
Travis Whalen

Collected date/time
06/13/24 13:30

Received date/time
06/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 03:05	06/25/24 03:05	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	10	06/25/24 03:45	06/25/24 03:45	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:46	06/20/24 13:46	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310564	1	06/24/24 14:02	06/24/24 14:02	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 21:21	06/22/24 21:21	JAH	Mt. Juliet, TN



EGW-MW01 L1747498-07 GW

Collected by
Travis Whalen

Collected date/time
06/13/24 19:05

Received date/time
06/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 03:59	06/25/24 03:59	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	10	06/25/24 04:12	06/25/24 04:12	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 14:33	06/20/24 14:33	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310564	1	06/24/24 14:05	06/24/24 14:05	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 21:40	06/22/24 21:40	JAH	Mt. Juliet, TN

EGW-MW02 L1747498-08 GW

Collected by
Travis Whalen

Collected date/time
06/13/24 17:40

Received date/time
06/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 04:26	06/25/24 04:26	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	10	06/25/24 04:39	06/25/24 04:39	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 13:53	06/20/24 13:53	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310564	1	06/24/24 14:08	06/24/24 14:08	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 21:59	06/22/24 21:59	JAH	Mt. Juliet, TN

EGW-MW03 L1747498-09 GW

Collected by
Travis Whalen

Collected date/time
06/13/24 18:30

Received date/time
06/15/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2306676	1	06/17/24 14:26	06/18/24 12:25	EPW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310907	1	06/25/24 04:53	06/25/24 04:53	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2308117	1	06/20/24 14:44	06/20/24 14:44	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2310564	1	06/24/24 14:11	06/24/24 14:11	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310320	1	06/22/24 22:19	06/22/24 22:19	JAH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	3840		50.0	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	131		1.00	1	06/25/2024 00:23	WG2310907
Sulfate	1970		50.0	10	06/25/2024 01:03	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	22.1	B T8	20.0	1	06/20/2024 13:16	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-01 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 15:33	WG2310561
Ethane	ND		0.0130	1	06/24/2024 15:33	WG2310561
Ethene	ND		0.0130	1	06/24/2024 15:33	WG2310561
Acetylene	ND		0.0208	1	06/24/2024 15:33	WG2310561

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 19:46	WG2310320
Toluene	ND		0.00100	1	06/22/2024 19:46	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 19:46	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 19:46	WG2310320
(S) Toluene-d8	101		80.0-120		06/22/2024 19:46	WG2310320
(S) 4-Bromofluorobenzene	100		77.0-126		06/22/2024 19:46	WG2310320
(S) 1,2-Dichloroethane-d4	121		70.0-130		06/22/2024 19:46	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	587		13.3	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	23.4		1.00	1	06/25/2024 01:17	WG2310907
Sulfate	81.4		5.00	1	06/25/2024 01:17	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 13:22	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-02 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 15:36	WG2310561
Ethane	ND		0.0130	1	06/24/2024 15:36	WG2310561
Ethene	ND		0.0130	1	06/24/2024 15:36	WG2310561
Acetylene	ND		0.0208	1	06/24/2024 15:36	WG2310561

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 20:05	WG2310320
Toluene	ND		0.00100	1	06/22/2024 20:05	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 20:05	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 20:05	WG2310320
(S) Toluene-d8	99.7		80.0-120		06/22/2024 20:05	WG2310320
(S) 4-Bromofluorobenzene	102		77.0-126		06/22/2024 20:05	WG2310320
(S) 1,2-Dichloroethane-d4	127		70.0-130		06/22/2024 20:05	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	761		13.3	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	17.2		1.00	1	06/25/2024 01:44	WG2310907
Sulfate	198		5.00	1	06/25/2024 01:44	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 13:28	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-03 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 15:42	WG2310561
Ethane	ND		0.0130	1	06/24/2024 15:42	WG2310561
Ethene	ND		0.0130	1	06/24/2024 15:42	WG2310561
Acetylene	ND		0.0208	1	06/24/2024 15:42	WG2310561

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 20:24	WG2310320
Toluene	ND		0.00100	1	06/22/2024 20:24	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 20:24	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 20:24	WG2310320
(S) Toluene-d8	97.9		80.0-120		06/22/2024 20:24	WG2310320
(S) 4-Bromofluorobenzene	102		77.0-126		06/22/2024 20:24	WG2310320
(S) 1,2-Dichloroethane-d4	129		70.0-130		06/22/2024 20:24	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2210		50.0	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	24.7		1.00	1	06/25/2024 02:11	WG2310907
Sulfate	1380		50.0	10	06/25/2024 02:24	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 13:35	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-04 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 16:18	WG2310561
Ethane	ND		0.0130	1	06/24/2024 16:18	WG2310561
Ethene	ND		0.0130	1	06/24/2024 16:18	WG2310561
Acetylene	ND		0.0208	1	06/24/2024 16:18	WG2310561

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 20:43	WG2310320
Toluene	ND		0.00100	1	06/22/2024 20:43	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 20:43	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 20:43	WG2310320
(S) Toluene-d8	97.0		80.0-120		06/22/2024 20:43	WG2310320
(S) 4-Bromofluorobenzene	100		77.0-126		06/22/2024 20:43	WG2310320
(S) 1,2-Dichloroethane-d4	129		70.0-130		06/22/2024 20:43	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1470		20.0	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	44.6		1.00	1	06/25/2024 02:38	WG2310907
Sulfate	694		50.0	10	06/25/2024 02:51	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	20.2	B T8	20.0	1	06/20/2024 13:40	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-05 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 13:59	WG2310564
Ethane	ND		0.0130	1	06/24/2024 13:59	WG2310564
Ethene	ND		0.0130	1	06/24/2024 13:59	WG2310564
Acetylene	ND		0.0208	1	06/24/2024 13:59	WG2310564

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 21:02	WG2310320
Toluene	ND		0.00100	1	06/22/2024 21:02	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 21:02	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 21:02	WG2310320
(S) Toluene-d8	98.9		80.0-120		06/22/2024 21:02	WG2310320
(S) 4-Bromofluorobenzene	102		77.0-126		06/22/2024 21:02	WG2310320
(S) 1,2-Dichloroethane-d4	126		70.0-130		06/22/2024 21:02	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	2730		50.0	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	54.0		1.00	1	06/25/2024 03:05	WG2310907
Sulfate	1490		50.0	10	06/25/2024 03:45	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 13:46	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-06 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 14:02	WG2310564
Ethane	ND		0.0130	1	06/24/2024 14:02	WG2310564
Ethene	ND		0.0130	1	06/24/2024 14:02	WG2310564
Acetylene	ND		0.0208	1	06/24/2024 14:02	WG2310564

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 21:21	WG2310320
Toluene	ND		0.00100	1	06/22/2024 21:21	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 21:21	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 21:21	WG2310320
(S) Toluene-d8	97.7		80.0-120		06/22/2024 21:21	WG2310320
(S) 4-Bromofluorobenzene	100		77.0-126		06/22/2024 21:21	WG2310320
(S) 1,2-Dichloroethane-d4	125		70.0-130		06/22/2024 21:21	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1360		20.0	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	45.1		1.00	1	06/25/2024 03:59	WG2310907
Sulfate	650		50.0	10	06/25/2024 04:12	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	21.8	B T8	20.0	1	06/20/2024 14:33	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-07 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 14:05	WG2310564
Ethane	ND		0.0130	1	06/24/2024 14:05	WG2310564
Ethene	ND		0.0130	1	06/24/2024 14:05	WG2310564
Acetylene	ND		0.0208	1	06/24/2024 14:05	WG2310564

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 21:40	WG2310320
Toluene	ND		0.00100	1	06/22/2024 21:40	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 21:40	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 21:40	WG2310320
(S) Toluene-d8	99.4		80.0-120		06/22/2024 21:40	WG2310320
(S) 4-Bromofluorobenzene	99.8		77.0-126		06/22/2024 21:40	WG2310320
(S) 1,2-Dichloroethane-d4	127		70.0-130		06/22/2024 21:40	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1770		25.0	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	42.6		1.00	1	06/25/2024 04:26	WG2310907
Sulfate	951		50.0	10	06/25/2024 04:39	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 13:53	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-08 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 14:08	WG2310564
Ethane	ND		0.0130	1	06/24/2024 14:08	WG2310564
Ethene	ND		0.0130	1	06/24/2024 14:08	WG2310564
Acetylene	ND		0.0208	1	06/24/2024 14:08	WG2310564

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 21:59	WG2310320
Toluene	ND		0.00100	1	06/22/2024 21:59	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 21:59	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 21:59	WG2310320
(S) Toluene-d8	96.9		80.0-120		06/22/2024 21:59	WG2310320
(S) 4-Bromofluorobenzene	97.2		77.0-126		06/22/2024 21:59	WG2310320
(S) 1,2-Dichloroethane-d4	129		70.0-130		06/22/2024 21:59	WG2310320

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1670		25.0	1	06/18/2024 12:25	WG2306676

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	39.4		1.00	1	06/25/2024 04:53	WG2310907
Sulfate	ND		5.00	1	06/25/2024 04:53	WG2310907

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/20/2024 14:44	WG2308117

6
Qc

7
Gl

Sample Narrative:

L1747498-09 WG2308117: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/24/2024 14:11	WG2310564
Ethane	ND		0.0130	1	06/24/2024 14:11	WG2310564
Ethene	ND		0.0130	1	06/24/2024 14:11	WG2310564
Acetylene	ND		0.0208	1	06/24/2024 14:11	WG2310564

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/22/2024 22:19	WG2310320
Toluene	ND		0.00100	1	06/22/2024 22:19	WG2310320
Ethylbenzene	ND		0.00100	1	06/22/2024 22:19	WG2310320
Total Xylenes	ND		0.00300	1	06/22/2024 22:19	WG2310320
(S) Toluene-d8	100		80.0-120		06/22/2024 22:19	WG2310320
(S) 4-Bromofluorobenzene	99.2		77.0-126		06/22/2024 22:19	WG2310320
(S) 1,2-Dichloroethane-d4	130		70.0-130		06/22/2024 22:19	WG2310320

Method Blank (MB)

(MB) R4083957-1 06/18/24 12:25

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1747456-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1747456-05 06/18/24 12:25 • (DUP) R4083957-3 06/18/24 12:25

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	2830	2780	1	1.61		10

L1747498-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747498-01 06/18/24 12:25 • (DUP) R4083957-4 06/18/24 12:25

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	3840	3960	1	3.08		10

Laboratory Control Sample (LCS)

(LCS) R4083957-2 06/18/24 12:25

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8710	99.0	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4086098-1 06/24/24 09:30

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1747456-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1747456-04 06/24/24 21:41 • (DUP) R4086098-3 06/24/24 21:54

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	3630	3610	50	0.535		15
Sulfate	1350	1340	50	0.500		15

L1747788-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747788-01 06/25/24 05:20 • (DUP) R4086098-6 06/25/24 05:33

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	ND	ND	10	0.655		15
Sulfate	272	269	10	1.18		15

Laboratory Control Sample (LCS)

(LCS) R4086098-2 06/24/24 09:43

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	36.9	92.2	90.0-110	
Sulfate	40.0	36.1	90.3	90.0-110	

L1747456-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747456-04 06/24/24 21:41 • (MS) R4086098-4 06/24/24 22:08 • (MSD) R4086098-5 06/24/24 22:21

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	3630	3050	ND	0.000	0.000	50	80.0-120	V	J3 V	200	15
Sulfate	40.0	1350	1150	ND	0.000	0.000	50	80.0-120	V	J3 V	200	15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1747788-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1747788-01 06/25/24 05:20 • (MS) R4086098-7 06/25/24 05:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	40.0	ND	37.8	81.5	10	80.0-120	
Sulfate	40.0	272	255	0.000	10	80.0-120	<u>V</u>

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4084366-3 06/20/24 12:09

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	15.7	⬇	6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1747155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747155-01 06/20/24 12:18 • (DUP) R4084366-5 06/20/24 12:24

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1747498-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1747498-07 06/20/24 14:33 • (DUP) R4084366-7 06/20/24 14:39

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	21.8	22.4	1	2.91		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4085795-2 06/24/24 13:48

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1747396-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1747396-03 06/24/24 13:51 • (DUP) R4085795-3 06/24/24 14:55

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1747405-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747405-01 06/24/24 15:03 • (DUP) R4085795-4 06/24/24 16:22

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4085795-1 06/24/24 13:44 • (LCSD) R4085795-9 06/24/24 16:40

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0619	0.0733	91.3	108	85.0-115			16.9	20
Ethane	0.129	0.120	0.121	93.0	93.8	85.0-115			0.830	20
Ethene	0.127	0.119	0.122	93.7	96.1	85.0-115			2.49	20
Acetylene	0.208	0.185	0.187	88.9	89.9	85.0-115			1.08	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1747396-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747396-12 06/24/24 14:20 • (MS) R4085795-5 06/24/24 16:25 • (MSD) R4085795-6 06/24/24 16:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0419	0.120	0.121	115	117	1	50.0-150			0.830	20
Ethane	0.129	ND	0.158	0.155	122	120	1	50.0-150			1.92	20
Ethene	0.127	ND	0.157	0.154	124	121	1	50.0-150			1.93	20
Acetylene	0.208	ND	0.246	0.239	118	115	1	50.0-150			2.89	20

L1747405-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747405-06 06/24/24 15:29 • (MS) R4085795-7 06/24/24 16:32 • (MSD) R4085795-8 06/24/24 16:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	1.26	1.33	1.33	103	103	1	50.0-150			0.000	20
Ethane	0.129	ND	0.157	0.156	122	121	1	50.0-150			0.639	20
Ethene	0.127	ND	0.155	0.154	122	121	1	50.0-150			0.647	20
Acetylene	0.208	ND	0.243	0.241	117	116	1	50.0-150			0.826	20

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4085779-2 06/24/24 13:53

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1745441-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1745441-04 06/24/24 13:56 • (DUP) R4085779-3 06/24/24 14:28

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1747821-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1747821-03 06/24/24 15:19 • (DUP) R4085779-4 06/24/24 16:19

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4085779-1 06/24/24 13:50 • (LCSD) R4085779-5 06/24/24 16:23

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0666	0.0767	98.2	113	85.0-115			14.1	20
Ethane	0.129	0.115	0.118	89.1	91.5	85.0-115			2.58	20
Ethene	0.127	0.116	0.121	91.3	95.3	85.0-115			4.22	20
Acetylene	0.208	0.183	0.190	88.0	91.3	85.0-115			3.75	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4085399-3 06/22/24 13:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	102			80.0-120
(S) 4-Bromofluorobenzene	98.9			77.0-126
(S) 1,2-Dichloroethane-d4	122			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4085399-1 06/22/24 11:59 • (LCSD) R4085399-2 06/22/24 12:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00429	0.00430	85.8	86.0	70.0-123			0.233	20
Toluene	0.00500	0.00444	0.00435	88.8	87.0	79.0-120			2.05	20
Ethylbenzene	0.00500	0.00473	0.00462	94.6	92.4	79.0-123			2.35	20
Total Xylenes	0.0150	0.0138	0.0134	92.0	89.3	79.0-123			2.94	20
(S) Toluene-d8				98.9	97.9	80.0-120				
(S) 4-Bromofluorobenzene				102	99.4	77.0-126				
(S) 1,2-Dichloroethane-d4				121	121	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

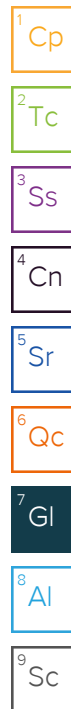
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

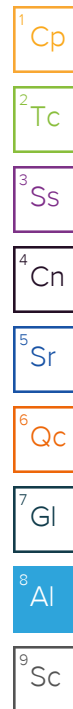
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Terracón - Longmont, CO 1831 Lefthand Circle Suite B Longmont, CO 80501 Report to: Travis Whalen						Billing Information: Travis Whalen 1831 Lefthand Circle Suite B Longmont, CO 80501 Email To: travis.whelen@terracon.com						Pres Chk		Analysis / Container / Preservative										Chain of Custody Page 1 of 1										
Project Description: COL Annual GW Sampling						City/State Collected: Longmont, CO			Please Circle: PT ☒ MT ☐ CT ☐ ET			CHLORIDE, SULFATE, 125mlHDPE-NoPres CO2 40mlAmb-NoPres RSK175 40mlAmb HCl TDS 1L-HDPE NoPres V8260BTEX 40mlAmb-HCl										 PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf SDG # 1747498 D208 Acctnum: TERRALCO Template: T226963 Prelogin: P1081489 PM: 824 - Chris Ward PB: KT 6/7/24 Shipped Via: FedEX Ground												
Phone: 303-454-5249			Client Project # 22237009			Lab Project # TERRALCO-22237009			Collected by (print): Travis Whalen		Site/Facility ID #											P.O. #		Collected by (signature): Travis Whalen		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote #		Date Results Needed Standard		No. of Cnts		
Immediately Packed on Ice N ☐ Y ☒																																		
Sample ID		Comp/Grab		Matrix *		Depth		Date		Time																								
MRZ-MW01		Grab		GW		-		6/14/24		1330		9		X		X		X		X		X												
MRZ-MW02				GW		-		6/14/24		1300		9		X		X		X		X		X												
MRZ-MW03				GW		-		6/14/24		1350		9		X		X		X		X		X												
PLI-MW01				GW		-		6/13/24		1245		9		X		X		X		X		X												
PLI-MW02				GW		-		6/13/24		1325		9		X		X		X		X		X												
PLI-MW03				GW		-		6/13/24		1330		9		X		X		X		X		X												
EGW-MW01				GW		-		6/13/24		1905		9		X		X		X		X		X												
EGW-MW02				GW		-		6/13/24		1740		9		X		X		X		X		X												
EGW-MW03				GW		-		6/13/24		1830		9		X		X		X		X		X												
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____						Remarks: pH _____ Temp _____ Flow _____ Other _____ Samples returned via: ☐ UPS ☒ FedEx ☐ Courier _____ Tracking # 7155 0314 3846 Relinquished by: (Signature) Travis Whalen Date: 6/14/24 Time: 1640 Received by: (Signature) FedEx Trip Blank Received: Yes/No ☒ HCL / MeOH TBR Relinquished by: (Signature) _____ Date: _____ Time: _____ Received by: (Signature) _____ Temp: EOA 7°C Bottles Received: 81 Relinquished by: (Signature) _____ Date: _____ Time: _____ Received for lab by: (Signature) Charles Stevenson Date: 6-15-24 Time: 9:00 Hold: _____ Condition: NCF / OK																												

Terracon - Longmont, CO

Sample Delivery Group: L1748418
Samples Received: 06/19/2024
Project Number: 22237009
Description: COL Annual GW Sampling

Report To: Travis Whalen
1831 Lefthand Circle
Suite B
Longmont, CO 80501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
WTI-MW01 L1748418-01	6
WTI-MW02 L1748418-02	7
WTI-MW03 L1748418-03	8
RDI-MW01 L1748418-04	9
RDI-MW02 L1748418-05	10
RDI-MW03 L1748418-06	11
GMI-MW02 L1748418-07	12
GMI-MW03 L1748418-08	13
Qc: Quality Control Summary	14
Gravimetric Analysis by Method 2540 C-2011	14
Wet Chemistry by Method 300.0	15
Wet Chemistry by Method 4500CO2 D-2011	17
Volatile Organic Compounds (GC) by Method RSK175	20
Volatile Organic Compounds (GC/MS) by Method 8260B	24
Gl: Glossary of Terms	25
Al: Accreditations & Locations	26
Sc: Sample Chain of Custody	27

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

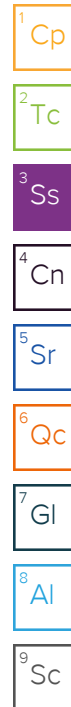
WTI-MW01 L1748418-01 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 09:25

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/26/24 18:16	06/26/24 18:16	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 17:14	06/21/24 17:14	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311128	1	06/25/24 15:32	06/25/24 15:32	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 12:40	06/24/24 12:40	JAH	Mt. Juliet, TN



WTI-MW02 L1748418-02 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 08:50

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/26/24 18:43	06/26/24 18:43	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	10	06/26/24 18:56	06/26/24 18:56	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309941	1	06/23/24 10:19	06/23/24 10:19	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311128	1	06/25/24 15:35	06/25/24 15:35	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 13:02	06/24/24 13:02	JAH	Mt. Juliet, TN

WTI-MW03 L1748418-03 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 09:35

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/26/24 19:10	06/26/24 19:10	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 17:21	06/21/24 17:21	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 09:46	06/26/24 09:46	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 13:24	06/24/24 13:24	JAH	Mt. Juliet, TN

RDI-MW01 L1748418-04 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 13:40

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/26/24 19:37	06/26/24 19:37	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 17:32	06/21/24 17:32	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 09:50	06/26/24 09:50	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 13:46	06/24/24 13:46	JAH	Mt. Juliet, TN

RDI-MW02 L1748418-05 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 13:15

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/26/24 19:50	06/26/24 19:50	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/26/24 20:31	06/26/24 20:31	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 17:42	06/21/24 17:42	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 09:53	06/26/24 09:53	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 14:08	06/24/24 14:08	JAH	Mt. Juliet, TN

SAMPLE SUMMARY

RDI-MW03 L1748418-06 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 13:35

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/26/24 20:44	06/26/24 20:44	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/26/24 21:25	06/26/24 21:25	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 17:47	06/21/24 17:47	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 09:55	06/26/24 09:55	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 14:30	06/24/24 14:30	JAH	Mt. Juliet, TN

GMI-MW02 L1748418-07 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 11:40

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/26/24 21:54	06/26/24 21:54	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309615	1	06/21/24 12:56	06/21/24 12:56	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 09:58	06/26/24 09:58	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 14:51	06/24/24 14:51	JAH	Mt. Juliet, TN

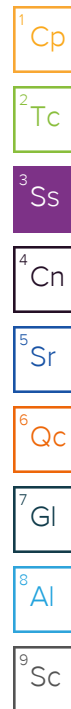
GMI-MW03 L1748418-08 GW

Collected by
Travis Whalen

Collected date/time
06/18/24 11:25

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/26/24 22:21	06/26/24 22:21	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	10	06/26/24 22:35	06/26/24 22:35	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309615	1	06/21/24 13:01	06/21/24 13:01	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 10:01	06/26/24 10:01	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 15:13	06/24/24 15:13	JAH	Mt. Juliet, TN



CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	411		10.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	16.2		1.00	1	06/26/2024 18:16	WG2310910
Sulfate	110		5.00	1	06/26/2024 18:16	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	25.0	T8	20.0	1	06/21/2024 17:14	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748418-01 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/25/2024 15:32	WG2311128
Ethane	ND		0.0130	1	06/25/2024 15:32	WG2311128
Ethene	ND		0.0130	1	06/25/2024 15:32	WG2311128
Acetylene	ND		0.0208	1	06/25/2024 15:32	WG2311128

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 12:40	WG2310992
Toluene	ND		0.00100	1	06/24/2024 12:40	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 12:40	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 12:40	WG2310992
(S) Toluene-d8	89.7		80.0-120		06/24/2024 12:40	WG2310992
(S) 4-Bromofluorobenzene	95.5		77.0-126		06/24/2024 12:40	WG2310992
(S) 1,2-Dichloroethane-d4	98.7		70.0-130		06/24/2024 12:40	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	616		13.3	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	23.1		1.00	1	06/26/2024 18:43	WG2310910
Sulfate	202		50.0	10	06/26/2024 18:56	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/23/2024 10:19	WG2309941

6
Qc

7
Gl

Sample Narrative:

L1748418-02 WG2309941: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/25/2024 15:35	WG2311128
Ethane	ND		0.0130	1	06/25/2024 15:35	WG2311128
Ethene	ND		0.0130	1	06/25/2024 15:35	WG2311128
Acetylene	ND		0.0208	1	06/25/2024 15:35	WG2311128

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 13:02	WG2310992
Toluene	ND		0.00100	1	06/24/2024 13:02	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 13:02	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 13:02	WG2310992
(S) Toluene-d8	92.5		80.0-120		06/24/2024 13:02	WG2310992
(S) 4-Bromofluorobenzene	99.8		77.0-126		06/24/2024 13:02	WG2310992
(S) 1,2-Dichloroethane-d4	98.3		70.0-130		06/24/2024 13:02	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	419		10.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	17.5		1.00	1	06/26/2024 19:10	WG2310910
Sulfate	127		5.00	1	06/26/2024 19:10	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/21/2024 17:21	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748418-03 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 09:46	WG2311831
Ethane	ND		0.0130	1	06/26/2024 09:46	WG2311831
Ethene	ND		0.0130	1	06/26/2024 09:46	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 09:46	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 13:24	WG2310992
Toluene	ND		0.00100	1	06/24/2024 13:24	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 13:24	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 13:24	WG2310992
(S) Toluene-d8	89.1		80.0-120		06/24/2024 13:24	WG2310992
(S) 4-Bromofluorobenzene	98.6		77.0-126		06/24/2024 13:24	WG2310992
(S) 1,2-Dichloroethane-d4	95.7		70.0-130		06/24/2024 13:24	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1000		20.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	39.0		5.00	5	06/26/2024 19:37	WG2310910
Sulfate	292		25.0	5	06/26/2024 19:37	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	115	T8	20.0	1	06/21/2024 17:32	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748418-04 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 09:50	WG2311831
Ethane	ND		0.0130	1	06/26/2024 09:50	WG2311831
Ethene	ND		0.0130	1	06/26/2024 09:50	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 09:50	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 13:46	WG2310992
Toluene	ND		0.00100	1	06/24/2024 13:46	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 13:46	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 13:46	WG2310992
(S) Toluene-d8	91.8		80.0-120		06/24/2024 13:46	WG2310992
(S) 4-Bromofluorobenzene	96.9		77.0-126		06/24/2024 13:46	WG2310992
(S) 1,2-Dichloroethane-d4	98.5		70.0-130		06/24/2024 13:46	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	930		50.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	41.6		1.00	1	06/26/2024 19:50	WG2310910
Sulfate	287		25.0	5	06/26/2024 20:31	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	40.3	T8	20.0	1	06/21/2024 17:42	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748418-05 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 09:53	WG2311831
Ethane	ND		0.0130	1	06/26/2024 09:53	WG2311831
Ethene	ND		0.0130	1	06/26/2024 09:53	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 09:53	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 14:08	WG2310992
Toluene	ND		0.00100	1	06/24/2024 14:08	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 14:08	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 14:08	WG2310992
(S) Toluene-d8	90.8		80.0-120		06/24/2024 14:08	WG2310992
(S) 4-Bromofluorobenzene	92.0		77.0-126		06/24/2024 14:08	WG2310992
(S) 1,2-Dichloroethane-d4	100		70.0-130		06/24/2024 14:08	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1090		50.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	42.5		1.00	1	06/26/2024 20:44	WG2310910
Sulfate	325		25.0	5	06/26/2024 21:25	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	30.0	T8	20.0	1	06/21/2024 17:47	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748418-06 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 09:55	WG2311831
Ethane	ND		0.0130	1	06/26/2024 09:55	WG2311831
Ethene	ND		0.0130	1	06/26/2024 09:55	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 09:55	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 14:30	WG2310992
Toluene	ND		0.00100	1	06/24/2024 14:30	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 14:30	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 14:30	WG2310992
(S) Toluene-d8	94.1		80.0-120		06/24/2024 14:30	WG2310992
(S) 4-Bromofluorobenzene	99.7		77.0-126		06/24/2024 14:30	WG2310992
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/24/2024 14:30	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	910		50.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	25.1		1.00	1	06/26/2024 21:54	WG2310910
Sulfate	123		5.00	1	06/26/2024 21:54	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	23.7	B T8	20.0	1	06/21/2024 12:56	WG2309615

6
Qc

7
Gl

Sample Narrative:

L1748418-07 WG2309615: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 09:58	WG2311831
Ethane	ND		0.0130	1	06/26/2024 09:58	WG2311831
Ethene	ND		0.0130	1	06/26/2024 09:58	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 09:58	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 14:51	WG2310992
Toluene	ND		0.00100	1	06/24/2024 14:51	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 14:51	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 14:51	WG2310992
(S) Toluene-d8	92.9		80.0-120		06/24/2024 14:51	WG2310992
(S) 4-Bromofluorobenzene	95.3		77.0-126		06/24/2024 14:51	WG2310992
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/24/2024 14:51	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1080		50.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	31.6		1.00	1	06/26/2024 22:21	WG2310910
Sulfate	644		50.0	10	06/26/2024 22:35	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	56.0	B T8	20.0	1	06/21/2024 13:01	WG2309615

6
Qc

7
Gl

Sample Narrative:

L1748418-08 WG2309615: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 10:01	WG2311831
Ethane	ND		0.0130	1	06/26/2024 10:01	WG2311831
Ethene	ND		0.0130	1	06/26/2024 10:01	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 10:01	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 15:13	WG2310992
Toluene	ND		0.00100	1	06/24/2024 15:13	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 15:13	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 15:13	WG2310992
(S) Toluene-d8	95.7		80.0-120		06/24/2024 15:13	WG2310992
(S) 4-Bromofluorobenzene	96.4		77.0-126		06/24/2024 15:13	WG2310992
(S) 1,2-Dichloroethane-d4	99.7		70.0-130		06/24/2024 15:13	WG2310992

Method Blank (MB)

(MB) R4086002-1 06/21/24 11:27

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U	⏏	10.0	10.0

L1748418-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-06 06/21/24 11:27 • (DUP) R4086002-3 06/21/24 11:27

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	1090	1020	1	6.67		10

L1748891-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1748891-07 06/21/24 11:27 • (DUP) R4086002-4 06/21/24 11:27

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	1530	1550	1	1.63		10

Laboratory Control Sample (LCS)

(LCS) R4086002-2 06/21/24 11:27

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8760	99.5	85.0-115	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4087360-1 06/26/24 09:20

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1748418-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-06 06/26/24 20:44 • (DUP) R4087360-3 06/26/24 20:58

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	42.5	42.3	1	0.357		15

L1748418-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-06 06/26/24 21:25 • (DUP) R4087360-5 06/26/24 21:41

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	325	305	5	6.11		15

L1748442-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1748442-04 06/27/24 00:36 • (DUP) R4087360-6 06/27/24 00:50

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	41.7	42.0	1	0.572		15

L1748442-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1748442-04 06/27/24 01:30 • (DUP) R4087360-9 06/27/24 01:44

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	324	321	5	1.17		15



Laboratory Control Sample (LCS)

(LCS) R4087360-2 06/26/24 09:33

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	37.5	93.7	90.0-110	
Sulfate	40.0	36.7	91.8	90.0-110	

L1748418-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1748418-06 06/26/24 20:44 • (MS) R4087360-4 06/26/24 21:11

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	42.5	74.5	80.0	1	80.0-120	

L1748442-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748442-04 06/27/24 00:36 • (MS) R4087360-7 06/27/24 01:03 • (MSD) R4087360-8 06/27/24 01:17

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	41.7	73.0	73.9	78.2	80.5	1	80.0-120	<u>J6</u>		1.24	15

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4084986-3 06/21/24 16:06

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	U		6.67	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1748328-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1748328-03 06/21/24 16:18 • (DUP) R4084986-5 06/21/24 16:25

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	158	159	1	0.686		20

Sample Narrative:
OS: Endpoint pH 4.5 headspace
DUP: Endpoint pH 4.5

L1748442-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1748442-07 06/21/24 18:28 • (DUP) R4084986-7 06/21/24 18:34

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	40.7	39.7	1	2.46		20

Sample Narrative:
OS: Endpoint pH 4.5 headspace
DUP: Endpoint pH 4.5

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4084946-3 06/21/24 12:30

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	17.4	⬇	6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1747258-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1747258-02 06/21/24 12:40 • (DUP) R4084946-5 06/21/24 12:45

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	112	102	1	9.71		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1749085-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1749085-02 06/21/24 15:05 • (DUP) R4084946-7 06/21/24 15:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	33.2	33.7	1	1.50		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4085346-3 06/23/24 09:31

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	15.3	J	6.67	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1748795-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1748795-01 06/23/24 10:11 • (DUP) R4085346-5 06/23/24 10:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	20.1	ND	1	2.97		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1749190-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1749190-01 06/23/24 11:55 • (DUP) R4085346-7 06/23/24 12:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	104	72.5	1	35.5	J3	20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4086312-2 06/25/24 14:07

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1747903-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1747903-07 06/25/24 14:40 • (DUP) R4086312-3 06/25/24 15:06

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1748234-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1748234-02 06/25/24 15:15 • (DUP) R4086312-4 06/25/24 16:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4086312-1 06/25/24 14:02 • (LCSD) R4086312-7 06/25/24 16:20

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0673	0.0640	99.3	94.4	85.0-115			5.03	20
Ethane	0.129	0.120	0.119	93.0	92.2	85.0-115			0.837	20
Ethene	0.127	0.120	0.120	94.5	94.5	85.0-115			0.000	20
Acetylene	0.208	0.186	0.187	89.4	89.9	85.0-115			0.536	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1748234-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748234-04 06/25/24 15:19 • (MS) R4086312-5 06/25/24 16:10 • (MSD) R4086312-6 06/25/24 16:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Methane	0.0678	1.90	2.07	1.94	251	59.0	1	50.0-150	<u>V</u>		6.48	20
Ethane	0.129	ND	0.156	0.147	121	114	1	50.0-150			5.94	20
Ethene	0.127	ND	0.154	0.144	121	113	1	50.0-150			6.71	20
Acetylene	0.208	ND	0.238	0.224	114	108	1	50.0-150			6.06	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4086654-2 06/26/24 09:20

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1748418-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-05 06/26/24 09:53 • (DUP) R4086654-3 06/26/24 10:17

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1748420-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1748420-03 06/26/24 10:22 • (DUP) R4086654-4 06/26/24 11:55

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4086654-1 06/26/24 09:18 • (LCSD) R4086654-7 06/26/24 12:16

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0662	0.0751	97.6	111	85.0-115			12.6	20
Ethane	0.129	0.122	0.123	94.6	95.3	85.0-115			0.816	20
Ethene	0.127	0.121	0.122	95.3	96.1	85.0-115			0.823	20
Acetylene	0.208	0.187	0.186	89.9	89.4	85.0-115			0.536	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1748456-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748456-03 06/26/24 11:26 • (MS) R4086654-5 06/26/24 12:00 • (MSD) R4086654-6 06/26/24 12:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Methane	0.0678	0.0653	0.144	0.139	116	109	1	50.0-150			3.53	20
Ethane	0.129	ND	0.154	0.153	119	119	1	50.0-150			0.651	20
Ethene	0.127	ND	0.152	0.151	120	119	1	50.0-150			0.660	20
Acetylene	0.208	ND	0.233	0.232	112	112	1	50.0-150			0.430	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4086149-3 06/24/24 11:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	90.5			80.0-120
(S) 4-Bromofluorobenzene	94.5			77.0-126
(S) 1,2-Dichloroethane-d4	97.7			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4086149-1 06/24/24 09:33 • (LCSD) R4086149-2 06/24/24 09:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00517	0.00528	103	106	70.0-123			2.11	20
Toluene	0.00500	0.00486	0.00480	97.2	96.0	79.0-120			1.24	20
Ethylbenzene	0.00500	0.00506	0.00484	101	96.8	79.0-123			4.44	20
Total Xylenes	0.0150	0.0144	0.0144	96.0	96.0	79.0-123			0.000	20
(S) Toluene-d8				94.9	91.9	80.0-120				
(S) 4-Bromofluorobenzene				96.7	94.4	77.0-126				
(S) 1,2-Dichloroethane-d4				96.2	95.3	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

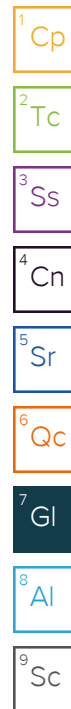
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

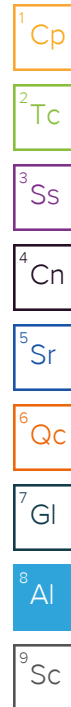
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Terracon - Longmont, CO 1831 Lefthand Circle Suite B Longmont, CO 80501 Report to: Travis Whalen				Billing Information: Travis Whalen 1831 Lefthand Circle Suite B Longmont, CO 80501 Email To: travis.whelen@terracon.com				Pres Chk		Analysis / Container / Preservative										Chain of Custody Page <u>1</u> of <u>1</u> PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf					
Project Description: COL Annual GW Sampling				City/State Collected: Longmont, CO		Please Circle: PT ☒ MT ☐ CT ☐ ET		CHLORIDE, SULFATE 125mLHDPE-NoPres CO2 40mLAmb-NoPres RSK175 40mLAmb HCl TDS 1L-HDPE NoPres V8260BTEX 40mLAmb-HCl										SDG # 1748418 B198							
Phone: 303-454-5249		Client Project # 22237009		Lab Project # TERRALCO-22237009		P.O. #												Quote #							
Collected by (print): Travis Whalen		Site/Facility ID #		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Date Results Needed Standard												No. of Cntrs							
Collected by (signature): Travis Whalen		Immediately Packed on Ice N ☐ Y ☒		Sample ID		Comp/Grab												Matrix *		Depth		Date		Time	
Remarks		Sample # (lab only)		Acctnum: TERRALCO Template: T226963 Prelogin: P1081489 PM: 824 - Chris Ward PB: 6/7/24 Shipped Via: FedEX Ground																					
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other				Remarks: pH _____ Temp _____ Flow _____ Other _____										Sample Receipt Checklist COC Seal Present/Intact: ☒ NP ☐ N COC Signed/Accurate: ☒ N Bottles arrive intact: ☒ N Correct bottles used: ☒ N Sufficient volume sent: ☒ N If Applicable VOA Zero Headspace: ☐ Y ☒ N Preservation Correct/Checked: ☐ Y ☒ N RAD Screen <0.5 mR/hr: ☒ Y ☐ N											
Samples returned via: ☐ UPS ☒ FedEx ☐ Courier				Tracking # 7210 2108 9846										Trip Blank Received: Yes / No ☒ MCL / MeoH ☐ TBR											
Relinquished by: (Signature) Travis Whalen				Date: 6/18/24		Time: 1630		Received by: (Signature) FedEx				Temp: 64.6°C 20.3 = 68.72				Bottles Received:		If preservation required by Login: Date/Time							
Relinquished by: (Signature)				Date:		Time:		Received by: (Signature)				Date:				Time:		Hold:		Condition: NCF / ☒					
Relinquished by: (Signature)				Date:		Time:		Received for lab by: (Signature) Alexa Mitchell				Date: 6/19/24				Time: 0900		Hold:		Condition:					

June 27, 2024

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Terracon - Longmont, CO

Sample Delivery Group: L1748442
Samples Received: 06/19/2024
Project Number: 22237009
Description: COL Annual GW Sampling

Report To: Travis Whalen
1831 Lefthand Circle
Suite B
Longmont, CO 80501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
TB1-MW01 L1748442-01	6
TB1-MW02 L1748442-02	7
TB1-MW03R L1748442-03	8
TB7-MW01 L1748442-04	9
TB7-MW02 L1748442-05	10
TB7-MW03 L1748442-06	11
MY1-MW01 L1748442-07	12
MY1-MW02 L1748442-08	13
MY1-MW03 L1748442-09	14
Qc: Quality Control Summary	15
Gravimetric Analysis by Method 2540 C-2011	15
Wet Chemistry by Method 300.0	18
Wet Chemistry by Method 4500CO2 D-2011	20
Volatile Organic Compounds (GC) by Method RSK175	22
Volatile Organic Compounds (GC/MS) by Method 8260B	28
Gl: Glossary of Terms	29
Al: Accreditations & Locations	30
Sc: Sample Chain of Custody	31

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

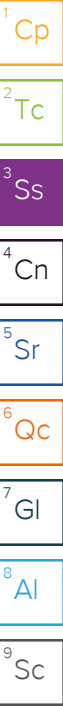
TB1-MW01 L1748442-01 GW

Collected by
Travis Whalen

Collected date/time
06/14/24 11:30

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309059	1	06/20/24 15:43	06/21/24 10:53	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/26/24 22:48	06/26/24 22:48	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	50	06/26/24 23:02	06/26/24 23:02	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309615	1	06/21/24 13:08	06/21/24 13:08	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311125	1	06/25/24 12:06	06/25/24 12:06	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 15:58	06/24/24 15:58	JAH	Mt. Juliet, TN



TB1-MW02 L1748442-02 GW

Collected by
Travis Whalen

Collected date/time
06/14/24 09:55

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309059	1	06/20/24 15:43	06/21/24 10:53	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/26/24 23:15	06/26/24 23:15	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	50	06/26/24 23:56	06/26/24 23:56	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309615	1	06/21/24 13:12	06/21/24 13:12	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311125	1	06/25/24 12:09	06/25/24 12:09	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 16:20	06/24/24 16:20	JAH	Mt. Juliet, TN

TB1-MW03R L1748442-03 GW

Collected by
Travis Whalen

Collected date/time
06/14/24 14:30

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309064	1	06/20/24 16:09	06/21/24 12:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/27/24 00:09	06/27/24 00:09	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	50	06/27/24 00:23	06/27/24 00:23	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 18:16	06/21/24 18:16	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311125	1	06/25/24 12:16	06/25/24 12:16	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 16:42	06/24/24 16:42	JAH	Mt. Juliet, TN

TB7-MW01 L1748442-04 GW

Collected by
Travis Whalen

Collected date/time
06/14/24 15:30

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309059	1	06/20/24 15:43	06/21/24 10:53	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/27/24 00:36	06/27/24 00:36	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/27/24 01:30	06/27/24 01:30	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 18:09	06/21/24 18:09	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311125	1	06/25/24 12:19	06/25/24 12:19	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 17:04	06/24/24 17:04	JAH	Mt. Juliet, TN

TB7-MW02 L1748442-05 GW

Collected by
Travis Whalen

Collected date/time
06/14/24 15:35

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309064	1	06/20/24 16:09	06/21/24 12:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/27/24 01:57	06/27/24 01:57	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/27/24 02:11	06/27/24 02:11	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309615	1	06/21/24 14:01	06/21/24 14:01	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311128	1	06/25/24 15:46	06/25/24 15:46	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 17:25	06/24/24 17:25	JAH	Mt. Juliet, TN

SAMPLE SUMMARY

TB7-MW03 L1748442-06 GW

Collected by
Travis Whalen

Collected date/time
06/17/24 11:25

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/27/24 02:24	06/27/24 02:24	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/27/24 02:38	06/27/24 02:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 18:22	06/21/24 18:22	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 11:03	06/26/24 11:03	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 17:48	06/24/24 17:48	JAH	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

MY1-MW01 L1748442-07 GW

Collected by
Travis Whalen

Collected date/time
06/17/24 13:45

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/27/24 02:51	06/27/24 02:51	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/27/24 03:32	06/27/24 03:32	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 18:28	06/21/24 18:28	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 11:07	06/26/24 11:07	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 18:09	06/24/24 18:09	JAH	Mt. Juliet, TN

MY1-MW02 L1748442-08 GW

Collected by
Travis Whalen

Collected date/time
06/17/24 13:10

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	1	06/27/24 03:45	06/27/24 03:45	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/27/24 03:59	06/27/24 03:59	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309615	1	06/21/24 14:06	06/21/24 14:06	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 11:10	06/26/24 11:10	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 18:31	06/24/24 18:31	JAH	Mt. Juliet, TN

MY1-MW03 L1748442-09 GW

Collected by
Travis Whalen

Collected date/time
06/17/24 14:35

Received date/time
06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2309367	1	06/21/24 08:49	06/21/24 11:27	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2310910	5	06/27/24 04:13	06/27/24 04:13	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2309193	1	06/21/24 18:40	06/21/24 18:40	KA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2311831	1	06/26/24 11:13	06/26/24 11:13	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2310992	1	06/24/24 18:53	06/24/24 18:53	JAH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	5490		100	1	06/21/2024 10:53	WG2309059

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	118		5.00	5	06/26/2024 22:48	WG2310910
Sulfate	3570		250	50	06/26/2024 23:02	WG2310910

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	88.1	B T8	20.0	1	06/21/2024 13:08	WG2309615

Sample Narrative:

L1748442-01 WG2309615: Endpoint pH 4.5 headspace

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/25/2024 12:06	WG2311125
Ethane	ND		0.0130	1	06/25/2024 12:06	WG2311125
Ethene	ND		0.0130	1	06/25/2024 12:06	WG2311125
Acetylene	ND		0.0208	1	06/25/2024 12:06	WG2311125

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 15:58	WG2310992
Toluene	ND		0.00100	1	06/24/2024 15:58	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 15:58	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 15:58	WG2310992
(S) Toluene-d8	90.3		80.0-120		06/24/2024 15:58	WG2310992
(S) 4-Bromofluorobenzene	96.1		77.0-126		06/24/2024 15:58	WG2310992
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/24/2024 15:58	WG2310992

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	4860		100	1	06/21/2024 10:53	WG2309059

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	436		5.00	5	06/26/2024 23:15	WG2310910
Sulfate	2180		250	50	06/26/2024 23:56	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	69.6	B T8	20.0	1	06/21/2024 13:12	WG2309615

6
Qc

7
Gl

Sample Narrative:

L1748442-02 WG2309615: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/25/2024 12:09	WG2311125
Ethane	ND		0.0130	1	06/25/2024 12:09	WG2311125
Ethene	ND		0.0130	1	06/25/2024 12:09	WG2311125
Acetylene	ND		0.0208	1	06/25/2024 12:09	WG2311125

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 16:20	WG2310992
Toluene	ND		0.00100	1	06/24/2024 16:20	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 16:20	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 16:20	WG2310992
(S) Toluene-d8	91.6		80.0-120		06/24/2024 16:20	WG2310992
(S) 4-Bromofluorobenzene	95.0		77.0-126		06/24/2024 16:20	WG2310992
(S) 1,2-Dichloroethane-d4	97.3		70.0-130		06/24/2024 16:20	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	6460		100	1	06/21/2024 12:57	WG2309064

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	188		5.00	5	06/27/2024 00:09	WG2310910
Sulfate	4280		250	50	06/27/2024 00:23	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	75.6	T8	20.0	1	06/21/2024 18:16	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748442-03 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/25/2024 12:16	WG2311125
Ethane	ND		0.0130	1	06/25/2024 12:16	WG2311125
Ethene	ND		0.0130	1	06/25/2024 12:16	WG2311125
Acetylene	ND		0.0208	1	06/25/2024 12:16	WG2311125

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 16:42	WG2310992
Toluene	ND		0.00100	1	06/24/2024 16:42	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 16:42	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 16:42	WG2310992
(S) Toluene-d8	90.8		80.0-120		06/24/2024 16:42	WG2310992
(S) 4-Bromofluorobenzene	93.9		77.0-126		06/24/2024 16:42	WG2310992
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/24/2024 16:42	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	920		20.0	1	06/21/2024 10:53	WG2309059

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	41.7	J6	1.00	1	06/27/2024 00:36	WG2310910
Sulfate	324		25.0	5	06/27/2024 01:30	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	06/21/2024 18:09	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748442-04 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/25/2024 12:19	WG2311125
Ethane	ND		0.0130	1	06/25/2024 12:19	WG2311125
Ethene	ND		0.0130	1	06/25/2024 12:19	WG2311125
Acetylene	ND		0.0208	1	06/25/2024 12:19	WG2311125

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 17:04	WG2310992
Toluene	ND		0.00100	1	06/24/2024 17:04	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 17:04	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 17:04	WG2310992
(S) Toluene-d8	87.8		80.0-120		06/24/2024 17:04	WG2310992
(S) 4-Bromofluorobenzene	89.9		77.0-126		06/24/2024 17:04	WG2310992
(S) 1,2-Dichloroethane-d4	99.3		70.0-130		06/24/2024 17:04	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1150		20.0	1	06/21/2024 12:57	WG2309064

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	55.8		1.00	1	06/27/2024 01:57	WG2310910
Sulfate	407		25.0	5	06/27/2024 02:11	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	28.6	B T8	20.0	1	06/21/2024 14:01	WG2309615

6
Qc

7
Gl

Sample Narrative:

L1748442-05 WG2309615: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/25/2024 15:46	WG2311128
Ethane	ND		0.0130	1	06/25/2024 15:46	WG2311128
Ethene	ND		0.0130	1	06/25/2024 15:46	WG2311128
Acetylene	ND		0.0208	1	06/25/2024 15:46	WG2311128

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 17:25	WG2310992
Toluene	ND		0.00100	1	06/24/2024 17:25	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 17:25	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 17:25	WG2310992
(S) Toluene-d8	92.1		80.0-120		06/24/2024 17:25	WG2310992
(S) 4-Bromofluorobenzene	90.9		77.0-126		06/24/2024 17:25	WG2310992
(S) 1,2-Dichloroethane-d4	96.9		70.0-130		06/24/2024 17:25	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1150		50.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	57.8		1.00	1	06/27/2024 02:24	WG2310910
Sulfate	391		25.0	5	06/27/2024 02:38	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	26.7	T8	20.0	1	06/21/2024 18:22	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748442-06 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 11:03	WG2311831
Ethane	ND		0.0130	1	06/26/2024 11:03	WG2311831
Ethene	ND		0.0130	1	06/26/2024 11:03	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 11:03	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 17:48	WG2310992
Toluene	ND		0.00100	1	06/24/2024 17:48	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 17:48	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 17:48	WG2310992
(S) Toluene-d8	92.6		80.0-120		06/24/2024 17:48	WG2310992
(S) 4-Bromofluorobenzene	93.1		77.0-126		06/24/2024 17:48	WG2310992
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/24/2024 17:48	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	960		50.0	1	06/21/2024 11:27	WG2309367

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	34.9		1.00	1	06/27/2024 02:51	WG2310910
Sulfate	250		25.0	5	06/27/2024 03:32	WG2310910

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	40.7	T8	20.0	1	06/21/2024 18:28	WG2309193

Sample Narrative:
L1748442-07 WG2309193: Endpoint pH 4.5 headspace

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 11:07	WG2311831
Ethane	ND		0.0130	1	06/26/2024 11:07	WG2311831
Ethene	ND		0.0130	1	06/26/2024 11:07	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 11:07	WG2311831

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 18:09	WG2310992
Toluene	ND		0.00100	1	06/24/2024 18:09	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 18:09	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 18:09	WG2310992
(S) Toluene-d8	90.8		80.0-120		06/24/2024 18:09	WG2310992
(S) 4-Bromofluorobenzene	96.6		77.0-126		06/24/2024 18:09	WG2310992
(S) 1,2-Dichloroethane-d4	99.0		70.0-130		06/24/2024 18:09	WG2310992

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	980		50.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	35.8		1.00	1	06/27/2024 03:45	WG2310910
Sulfate	250		25.0	5	06/27/2024 03:59	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	64.5	B T8	20.0	1	06/21/2024 14:06	WG2309615

6
Qc

7
Gl

Sample Narrative:

L1748442-08 WG2309615: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 11:10	WG2311831
Ethane	ND		0.0130	1	06/26/2024 11:10	WG2311831
Ethene	ND		0.0130	1	06/26/2024 11:10	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 11:10	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 18:31	WG2310992
Toluene	ND		0.00100	1	06/24/2024 18:31	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 18:31	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 18:31	WG2310992
(S) Toluene-d8	94.7		80.0-120		06/24/2024 18:31	WG2310992
(S) 4-Bromofluorobenzene	96.8		77.0-126		06/24/2024 18:31	WG2310992
(S) 1,2-Dichloroethane-d4	99.7		70.0-130		06/24/2024 18:31	WG2310992

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	865		50.0	1	06/21/2024 11:27	WG2309367

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	28.0		5.00	5	06/27/2024 04:13	WG2310910
Sulfate	262		25.0	5	06/27/2024 04:13	WG2310910

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	136	T8	20.0	1	06/21/2024 18:40	WG2309193

6
Qc

7
Gl

Sample Narrative:

L1748442-09 WG2309193: Endpoint pH 4.5 headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/26/2024 11:13	WG2311831
Ethane	ND		0.0130	1	06/26/2024 11:13	WG2311831
Ethene	ND		0.0130	1	06/26/2024 11:13	WG2311831
Acetylene	ND		0.0208	1	06/26/2024 11:13	WG2311831

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	06/24/2024 18:53	WG2310992
Toluene	ND		0.00100	1	06/24/2024 18:53	WG2310992
Ethylbenzene	ND		0.00100	1	06/24/2024 18:53	WG2310992
Total Xylenes	ND		0.00300	1	06/24/2024 18:53	WG2310992
(S) Toluene-d8	94.3		80.0-120		06/24/2024 18:53	WG2310992
(S) 4-Bromofluorobenzene	91.6		77.0-126		06/24/2024 18:53	WG2310992
(S) 1,2-Dichloroethane-d4	101		70.0-130		06/24/2024 18:53	WG2310992

Method Blank (MB)

(MB) R4085777-1 06/21/24 10:53

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1747059-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1747059-08 06/21/24 10:53 • (DUP) R4085777-3 06/21/24 10:53

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	ND	ND	1	200	P1	10

L1747608-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1747608-01 06/21/24 10:53 • (DUP) R4085777-4 06/21/24 10:53

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	324	334	1	3.04		10

Laboratory Control Sample (LCS)

(LCS) R4085777-2 06/21/24 10:53

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8560	97.3	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4086091-1 06/21/24 12:57

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1747580-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1747580-04 06/21/24 12:57 • (DUP) R4086091-3 06/21/24 12:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	10.0	ND	1	50.0	P1	10

L1747580-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1747580-05 06/21/24 12:57 • (DUP) R4086091-4 06/21/24 12:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	10.0	ND	1	35.3	P1	10

Laboratory Control Sample (LCS)

(LCS) R4086091-2 06/21/24 12:57

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8860	101	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4086002-1 06/21/24 11:27

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U	⬇	10.0	10.0

L1748418-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-06 06/21/24 11:27 • (DUP) R4086002-3 06/21/24 11:27

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	1090	1020	1	6.67		10

L1748891-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1748891-07 06/21/24 11:27 • (DUP) R4086002-4 06/21/24 11:27

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	1530	1550	1	1.63		10

Laboratory Control Sample (LCS)

(LCS) R4086002-2 06/21/24 11:27

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8760	99.5	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4087360-1 06/26/24 09:20

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1748418-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-06 06/26/24 20:44 • (DUP) R4087360-3 06/26/24 20:58

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	42.5	42.3	1	0.357		15

L1748418-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-06 06/26/24 21:25 • (DUP) R4087360-5 06/26/24 21:41

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	325	305	5	6.11		15

L1748442-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1748442-04 06/27/24 00:36 • (DUP) R4087360-6 06/27/24 00:50

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	41.7	42.0	1	0.572		15

L1748442-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1748442-04 06/27/24 01:30 • (DUP) R4087360-9 06/27/24 01:44

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Sulfate	324	321	5	1.17		15

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4087360-2 06/26/24 09:33

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	37.5	93.7	90.0-110	
Sulfate	40.0	36.7	91.8	90.0-110	

L1748418-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1748418-06 06/26/24 20:44 • (MS) R4087360-4 06/26/24 21:11

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	42.5	74.5	80.0	1	80.0-120	

L1748442-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748442-04 06/27/24 00:36 • (MS) R4087360-7 06/27/24 01:03 • (MSD) R4087360-8 06/27/24 01:17

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	41.7	73.0	73.9	78.2	80.5	1	80.0-120	<u>J6</u>		1.24	15

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4084986-3 06/21/24 16:06

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	U		6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1748328-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1748328-03 06/21/24 16:18 • (DUP) R4084986-5 06/21/24 16:25

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	158	159	1	0.686		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1748442-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1748442-07 06/21/24 18:28 • (DUP) R4084986-7 06/21/24 18:34

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	40.7	39.7	1	2.46		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4084946-3 06/21/24 12:30

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	17.4	⬇	6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1747258-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1747258-02 06/21/24 12:40 • (DUP) R4084946-5 06/21/24 12:45

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	112	102	1	9.71		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1749085-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1749085-02 06/21/24 15:05 • (DUP) R4084946-7 06/21/24 15:10

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	33.2	33.7	1	1.50		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4086142-2 06/25/24 10:51

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1747580-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1747580-12 06/25/24 11:07 • (DUP) R4086142-3 06/25/24 11:39

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1747740-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1747740-22 06/25/24 11:43 • (DUP) R4086142-4 06/25/24 12:22

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4086142-1 06/25/24 10:49 • (LCSD) R4086142-9 06/25/24 12:37

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0621	0.0617	91.6	91.0	85.0-115			0.646	20
Ethane	0.129	0.121	0.120	93.8	93.0	85.0-115			0.830	20
Ethene	0.127	0.120	0.121	94.5	95.3	85.0-115			0.830	20
Acetylene	0.208	0.187	0.189	89.9	90.9	85.0-115			1.06	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1747740-31 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1747740-31 06/25/24 11:52 • (MS) R4086142-5 06/25/24 12:25 • (MSD) R4086142-6 06/25/24 12:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	ND	0.0637	0.0656	94.0	96.8	1	50.0-150			2.94	20
Ethane	0.129	ND	0.119	0.123	92.2	95.3	1	50.0-150			3.31	20
Ethene	0.127	ND	0.121	0.123	95.3	96.9	1	50.0-150			1.64	20
Acetylene	0.208	ND	0.187	0.191	89.9	91.8	1	50.0-150			2.12	20

L1748281-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748281-01 06/25/24 11:55 • (MS) R4086142-7 06/25/24 12:32 • (MSD) R4086142-8 06/25/24 12:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	ND	0.0634	0.0624	93.5	92.0	1	50.0-150			1.59	20
Ethane	0.129	ND	0.120	0.119	93.0	92.2	1	50.0-150			0.837	20
Ethene	0.127	ND	0.120	0.119	94.5	93.7	1	50.0-150			0.837	20
Acetylene	0.208	ND	0.186	0.186	89.4	89.4	1	50.0-150			0.000	20

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4086312-2 06/25/24 14:07

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1747903-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1747903-07 06/25/24 14:40 • (DUP) R4086312-3 06/25/24 15:06

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1748234-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1748234-02 06/25/24 15:15 • (DUP) R4086312-4 06/25/24 16:07

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4086312-1 06/25/24 14:02 • (LCSD) R4086312-7 06/25/24 16:20

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0673	0.0640	99.3	94.4	85.0-115			5.03	20
Ethane	0.129	0.120	0.119	93.0	92.2	85.0-115			0.837	20
Ethene	0.127	0.120	0.120	94.5	94.5	85.0-115			0.000	20
Acetylene	0.208	0.186	0.187	89.4	89.9	85.0-115			0.536	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1748234-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748234-04 06/25/24 15:19 • (MS) R4086312-5 06/25/24 16:10 • (MSD) R4086312-6 06/25/24 16:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	1.90	2.07	1.94	251	59.0	1	50.0-150	V		6.48	20
Ethane	0.129	ND	0.156	0.147	121	114	1	50.0-150			5.94	20
Ethene	0.127	ND	0.154	0.144	121	113	1	50.0-150			6.71	20
Acetylene	0.208	ND	0.238	0.224	114	108	1	50.0-150			6.06	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4086654-2 06/26/24 09:20

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1748418-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1748418-05 06/26/24 09:53 • (DUP) R4086654-3 06/26/24 10:17

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1748420-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1748420-03 06/26/24 10:22 • (DUP) R4086654-4 06/26/24 11:55

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4086654-1 06/26/24 09:18 • (LCSD) R4086654-7 06/26/24 12:16

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0662	0.0751	97.6	111	85.0-115			12.6	20
Ethane	0.129	0.122	0.123	94.6	95.3	85.0-115			0.816	20
Ethene	0.127	0.121	0.122	95.3	96.1	85.0-115			0.823	20
Acetylene	0.208	0.187	0.186	89.9	89.4	85.0-115			0.536	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1748456-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748456-03 06/26/24 11:26 • (MS) R4086654-5 06/26/24 12:00 • (MSD) R4086654-6 06/26/24 12:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Methane	0.0678	0.0653	0.144	0.139	116	109	1	50.0-150			3.53	20
Ethane	0.129	ND	0.154	0.153	119	119	1	50.0-150			0.651	20
Ethene	0.127	ND	0.152	0.151	120	119	1	50.0-150			0.660	20
Acetylene	0.208	ND	0.233	0.232	112	112	1	50.0-150			0.430	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4086149-3 06/24/24 11:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	90.5			80.0-120
(S) 4-Bromofluorobenzene	94.5			77.0-126
(S) 1,2-Dichloroethane-d4	97.7			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4086149-1 06/24/24 09:33 • (LCSD) R4086149-2 06/24/24 09:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00517	0.00528	103	106	70.0-123			2.11	20
Toluene	0.00500	0.00486	0.00480	97.2	96.0	79.0-120			1.24	20
Ethylbenzene	0.00500	0.00506	0.00484	101	96.8	79.0-123			4.44	20
Total Xylenes	0.0150	0.0144	0.0144	96.0	96.0	79.0-123			0.000	20
(S) Toluene-d8				94.9	91.9	80.0-120				
(S) 4-Bromofluorobenzene				96.7	94.4	77.0-126				
(S) 1,2-Dichloroethane-d4				96.2	95.3	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

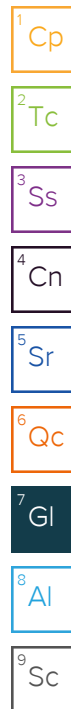
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

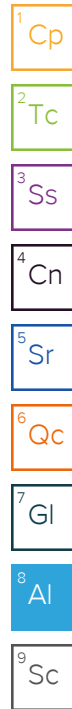
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Terracon - Longmont, CO 1831 Lefthand Circle Suite B Longmont, CO 80501 Report to: Travis Whalen				Billing Information: Travis Whalen 1831 Lefthand Circle Suite B Longmont, CO 80501 Email To: travis.whelen@terracon.com				Chain of Custody Page 1 of 1 MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf	
Project Description: COL Annual GW Sampling				City/State Collected: Longmont, CO		Please Circle: PT ☒ MT ☐ CT ☐ ET ☐			
Phone: 303-454-5249		Client Project # 22237009		Lab Project # TERRALCO-22237009					
Collected by (print): Travis Whalen		Site/Facility ID #		P.O. #					
Collected by (signature): 		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote # Date Results Needed Standard					
Immediately Packed on Ice N ☐ Y ☒		No. of Cntrs		No. of Cntrs					
Sample ID		Comp/Grab		Matrix *					
Depth		Date		Time					
TB1-MW01		Grab		GW					
TB1-MW02		GW		GW					
TB1-MW03R		GW		GW					
TB7-MW01		GW		GW					
TB7-MW02		GW		GW					
TB7-MW03		GW		GW					
MY1-MW01		GW		GW					
MY1-MW02		GW		GW					
MY1-MW03		GW		GW					
GW		GW		GW					
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks: Samples returned via: UPS ☒ FedEx ☐ Courier		Tracking # 7210 2108 9868					
Relinquished by : (Signature) 		Date: 6/17/24		Time: 1615					
Relinquished by : (Signature)		Date:		Time:					
Relinquished by : (Signature)		Date:		Time:					
Received by: (Signature) FedEx		Received by: (Signature)		Received for lab by: (Signature) Charles Stevenson					
Trip Blank Received: Yes ☒ No ☐ HCL / MeOH TBR		Temp: EDA°C 3.2+0.3=35		Bottles Received: 81					
If preservation required by Login: Date/Time		Hold:		Condition: NCF 10					

Terracon - Longmont, CO

Sample Delivery Group: L1749456
Samples Received: 06/21/2024
Project Number: 22237009
Description: COL Annual GW Sampling

Report To: Travis Whalen
1831 Lefthand Circle
Suite B
Longmont, CO 80501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
GM1-MW01 L1749456-01	5
GM1-MW01 L1749456-02	6
Qc: Quality Control Summary	7
Gravimetric Analysis by Method 2540 C-2011	7
Wet Chemistry by Method 300.0	8
Wet Chemistry by Method 4500CO2 D-2011	10
Volatile Organic Compounds (GC) by Method RSK175	11
Volatile Organic Compounds (GC/MS) by Method 8260B	12
Gl: Glossary of Terms	13
Al: Accreditations & Locations	14
Sc: Sample Chain of Custody	15

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

GM1-MW01 L1749456-01 GW

Collected by
BV

Collected date/time
06/18/24 11:20

Received date/time
06/21/24 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 4500C02 D-2011	WG2310622	1	06/24/24 09:25	06/24/24 09:25	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2312667	1	06/28/24 10:05	06/28/24 10:05	OK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2312239	1	06/26/24 11:53	06/26/24 11:53	JHH	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

GM1-MW01 L1749456-02 WW

Collected by
BV

Collected date/time
06/20/24 10:10

Received date/time
06/21/24 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2310328	1	06/22/24 15:57	06/23/24 12:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2311117	5	06/27/24 21:03	06/27/24 21:03	DLH	Mt. Juliet, TN

⁵Sr

⁶Qc

⁷Gl

⁸Al

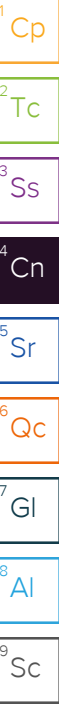
⁹Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager



Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Free Carbon Dioxide	ND	T8	20.0	1	06/24/2024 09:25	WG2310622

Sample Narrative:

L1749456-01 WG2310622: Endpoint pH 4.5

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	06/28/2024 10:05	WG2312667
Ethane	ND		0.0130	1	06/28/2024 10:05	WG2312667
Ethene	ND		0.0130	1	06/28/2024 10:05	WG2312667
Acetylene	ND		0.0208	1	06/28/2024 10:05	WG2312667

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	06/26/2024 11:53	WG2312239
Toluene	ND		0.00100	1	06/26/2024 11:53	WG2312239
Ethylbenzene	ND		0.00100	1	06/26/2024 11:53	WG2312239
Total Xylenes	ND		0.00300	1	06/26/2024 11:53	WG2312239
(S) Toluene-d8	102		80.0-120		06/26/2024 11:53	WG2312239
(S) 4-Bromofluorobenzene	97.7		77.0-126		06/26/2024 11:53	WG2312239
(S) 1,2-Dichloroethane-d4	103		70.0-130		06/26/2024 11:53	WG2312239

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	849		13.3	1	06/23/2024 12:59	WG2310328

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	24.5		5.00	5	06/27/2024 21:03	WG2311117
Sulfate	355		25.0	5	06/27/2024 21:03	WG2311117

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4086574-1 06/23/24 12:59

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1748038-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1748038-01 06/23/24 12:59 • (DUP) R4086574-3 06/23/24 12:59

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	348	363	1	4.22		10

L1748057-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1748057-01 06/23/24 12:59 • (DUP) R4086574-4 06/23/24 12:59

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	52.0	50.0	1	3.92		10

Laboratory Control Sample (LCS)

(LCS) R4086574-2 06/23/24 12:59

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8500	96.6	85.0-115	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4087920-1 06/27/24 08:49

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1743472-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1743472-02 06/27/24 10:52 • (DUP) R4087920-3 06/27/24 11:06

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	71.9	72.6	1	0.900		15
Sulfate	26.8	27.1	1	1.15		15

L1749455-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1749455-04 06/27/24 20:23 • (DUP) R4087920-6 06/27/24 20:36

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	40.4	40.0	1	1.05		15
Sulfate	123	122	1	0.788		15

Laboratory Control Sample (LCS)

(LCS) R4087920-2 06/27/24 09:02

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	38.4	95.9	90.0-110	
Sulfate	40.0	37.5	93.8	90.0-110	

L1743472-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1743472-02 06/27/24 10:52 • (MS) R4087920-4 06/27/24 11:19 • (MSD) R4087920-5 06/27/24 11:33

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	71.9	98.5	99.1	66.3	68.0	1	80.0-120	J6	J6	0.693	15
Sulfate	40.0	26.8	62.4	63.6	88.9	92.0	1	80.0-120			1.98	15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1749455-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1749455-04 06/27/24 20:23 • (MS) R4087920-7 06/27/24 20:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	40.0	40.4	73.9	83.7	1	80.0-120	
Sulfate	40.0	123	136	32.9	1	80.0-120	J6

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4085732-3 06/24/24 09:15

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	7.57	⬇	6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1749569-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1749569-01 06/24/24 09:30 • (DUP) R4085732-5 06/24/24 09:32

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	ND	ND	1	3.22		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1749734-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1749734-05 06/24/24 11:12 • (DUP) R4085732-7 06/24/24 11:16

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	37.1	35.2	1	5.13		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4087728-2 06/28/24 09:02

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1749423-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1749423-12 06/28/24 10:01 • (DUP) R4087728-3 06/28/24 10:42

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1749569-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1749569-01 06/28/24 10:37 • (DUP) R4087728-4 06/28/24 11:54

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4087728-1 06/28/24 08:34 • (LCSD) R4087728-5 06/28/24 11:58

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0738	0.0727	109	107	85.0-115			1.50	20
Ethane	0.129	0.119	0.121	92.2	93.8	85.0-115			1.67	20
Ethene	0.127	0.123	0.121	96.9	95.3	85.0-115			1.64	20
Acetylene	0.208	0.183	0.179	88.0	86.1	85.0-115			2.21	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4087103-3 06/26/24 07:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	98.4			77.0-126
(S) 1,2-Dichloroethane-d4	103			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4087103-1 06/26/24 06:07 • (LCSD) R4087103-2 06/26/24 06:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00438	0.00475	87.6	95.0	70.0-123			8.11	20
Toluene	0.00500	0.00424	0.00441	84.8	88.2	79.0-120			3.93	20
Ethylbenzene	0.00500	0.00420	0.00424	84.0	84.8	79.0-123			0.948	20
Total Xylenes	0.0150	0.0122	0.0128	81.3	85.3	79.0-123			4.80	20
(S) Toluene-d8				102	98.5	80.0-120				
(S) 4-Bromofluorobenzene				102	100	77.0-126				
(S) 1,2-Dichloroethane-d4				102	105	70.0-130				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

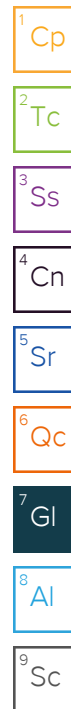
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

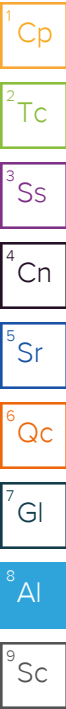
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Terracon - Longmont, CO 1831 Lefthand Circle Suite B Longmont, CO 80501 Report to: Travis Whalen				Billing Information: Travis Whalen 1831 Lefthand Circle Suite B Longmont, CO 80501 Email To: travis.whelen@terracon.com				Analysis / Container / Preservative Pres Chk <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>CHLORIDE, SULFATE 125mlHDPE-NoPres</td></tr> <tr><td>CO2 40mlAmb-NoPres</td></tr> <tr><td>RSK175 40mlAmb HCl</td></tr> <tr><td>TDS 1L-HDPE NoPres</td></tr> <tr><td>V8260BTEX 40mlAmb-HCl</td></tr> </table>				CHLORIDE, SULFATE 125mlHDPE-NoPres	CO2 40mlAmb-NoPres	RSK175 40mlAmb HCl	TDS 1L-HDPE NoPres	V8260BTEX 40mlAmb-HCl	Chain of Custody Page <u>1</u> of <u>1</u> PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf SDG # 1749456 F175 Acctnum: TERRALCO Template: T226963 Prelogin: P1081489 PM: 824 - Chris Ward PB: 6/7/24 Shipped Via: FedEX Ground			
CHLORIDE, SULFATE 125mlHDPE-NoPres																				
CO2 40mlAmb-NoPres																				
RSK175 40mlAmb HCl																				
TDS 1L-HDPE NoPres																				
V8260BTEX 40mlAmb-HCl																				
Project Description: COL Annual GW Sampling		City/State Collected: Longmont, CO		Please Circle: PT ☒ MT ☐ CT ☐ ET ☐		Client Project # 22237009		Lab Project # TERRALCO-22237009												
Phone: 303-454-5249		Site/Facility ID #		P.O. #		Collected by (print): Brayden Vos		Collected by (signature): 												
Immediately Packed on Ice N ☐ Y ☒		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote # Standard		Date Results Needed Standard		No. of Cntrs												
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time															
GMI-MW01	Grab	GW	—	6/18/24	1120	7	X	X	X	X	X									
GMI-MW01	Grab	GW	—	6/20/24	1010	2	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									
		GW				9	X	X	X	X	X									

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other _____

Remarks: **Chloride, sulfate, + TDS samples had to be obtained at a later date than the other samples due to insufficient well recharge.**

Samples returned via:
☐ UPS ☒ FedEx ☐ Courier _____

Tracking # **7210 2108 9835**

Relinquished by: (Signature)

Date: **6/20/24** Time: **1430**

Relinquished by: (Signature)

Date: Time: Received by: (Signature)
FedEx

Relinquished by: (Signature)

Date: Time: Received for lab by: (Signature)

Temp: **EDAT 7°C** Bottles Received: **4.610.3=4.99**

Flow: Other: pH: Temp: Flow: Other: pH: Temp:

Hold: Condition: **NCF / OK**

If preservation required by Login: Date/Time

Sample Receipt Checklist

COC Seal Present/Intact:	NP	☒ Y	☐ N
COC Signed/Accurate:		☒ Y	☐ N
Bottles arrive intact:		☒ Y	☐ N
Correct bottles used:		☒ Y	☐ N
Sufficient volume sent:		☒ Y	☐ N
If Applicable			
VOA Zero Headspace:		☒ Y	☐ N
Preservation Correct/Checked:		☒ Y	☐ N
RAD Screen <0.5 mR/hr:		☒ Y	☐ N

Terracon - Longmont, CO

Sample Delivery Group: L1735016
Samples Received: 05/10/2024
Project Number: 22237009
Description: COL Annual GW Sampling

Report To: Travis Whalen
1831 Lefthand Circle
Suite B
Longmont, CO 80501

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	6
Sr: Sample Results	7
SH1-MW01 L1735016-01	7
SH1-MW02 L1735016-02	8
SH1-MW03 L1735016-03	9
CL-MW01 L1735016-04	10
CL-MW02 L1735016-05	11
CL-MW03 L1735016-06	12
SGU-MW01 L1735016-07	13
SGU-MW02 L1735016-08	14
SGU-MW03 L1735016-09	15
SGU-MW06 L1735016-10	16
SH2-MW01 L1735016-11	17
SH2-MW02 L1735016-12	18
Qc: Quality Control Summary	19
Gravimetric Analysis by Method 2540 C-2011	19
Wet Chemistry by Method 300.0	20
Wet Chemistry by Method 4500CO2 D-2011	22
Volatile Organic Compounds (GC) by Method RSK175	23
Volatile Organic Compounds (GC/MS) by Method 8260B	25
Gl: Glossary of Terms	27
Al: Accreditations & Locations	28
Sc: Sample Chain of Custody	29

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

SH1-MW01 L1735016-01 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 13:20

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	10	05/14/24 02:08	05/14/24 02:08	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 13:21	05/14/24 13:21	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 09:14	05/15/24 09:14	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285161	1	05/13/24 18:56	05/13/24 18:56	ACG	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

SH1-MW02 L1735016-02 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 13:02

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	10	05/14/24 02:47	05/14/24 02:47	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 13:26	05/14/24 13:26	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 09:17	05/15/24 09:17	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285161	1	05/13/24 19:15	05/13/24 19:15	ACG	Mt. Juliet, TN

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

SH1-MW03 L1735016-03 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 12:40

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	10	05/14/24 02:59	05/14/24 02:59	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 13:57	05/14/24 13:57	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 09:25	05/15/24 09:25	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 02:21	05/13/24 02:21	DYW	Mt. Juliet, TN

⁹ Sc

CL-MW01 L1735016-04 GW

Collected by
Travis Whalen

Collected date/time
05/09/24 10:05

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	5	05/14/24 03:12	05/14/24 03:12	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 14:04	05/14/24 14:04	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 09:31	05/15/24 09:31	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 02:43	05/13/24 02:43	DYW	Mt. Juliet, TN

CL-MW02 L1735016-05 GW

Collected by
Travis Whalen

Collected date/time
05/09/24 11:20

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	5	05/14/24 03:25	05/14/24 03:25	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 14:13	05/14/24 14:13	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 09:35	05/15/24 09:35	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 03:05	05/13/24 03:05	DYW	Mt. Juliet, TN

SAMPLE SUMMARY

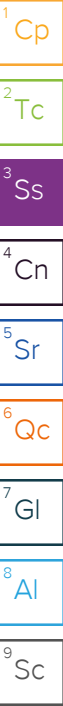
CL-MW03 L1735016-06 GW

Collected by
Travis Whalen

Collected date/time
05/09/24 10:40

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	5	05/14/24 03:38	05/14/24 03:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 14:21	05/14/24 14:21	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 09:39	05/15/24 09:39	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 03:27	05/13/24 03:27	DYW	Mt. Juliet, TN



SGU-MW01 L1735016-07 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 15:45

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	1	05/14/24 03:51	05/14/24 03:51	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	5	05/14/24 06:25	05/14/24 06:25	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 14:28	05/14/24 14:28	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 09:43	05/15/24 09:43	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 03:49	05/13/24 03:49	DYW	Mt. Juliet, TN

SGU-MW02 L1735016-08 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 15:55

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	1	05/14/24 04:04	05/14/24 04:04	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	5	05/14/24 06:38	05/14/24 06:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 14:33	05/14/24 14:33	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 10:47	05/15/24 10:47	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 04:11	05/13/24 04:11	DYW	Mt. Juliet, TN

SGU-MW03 L1735016-09 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 15:00

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	1	05/14/24 04:17	05/14/24 04:17	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	5	05/14/24 06:51	05/14/24 06:51	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 14:38	05/14/24 14:38	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 10:53	05/15/24 10:53	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 04:33	05/13/24 04:33	DYW	Mt. Juliet, TN

SGU-MW06 L1735016-10 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 14:50

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	5	05/14/24 04:30	05/14/24 04:30	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2285609	1	05/14/24 14:44	05/14/24 14:44	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 10:56	05/15/24 10:56	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 04:55	05/13/24 04:55	DYW	Mt. Juliet, TN

SAMPLE SUMMARY

SH2-MW01 L1735016-11 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 10:50

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	10	05/14/24 04:42	05/14/24 04:42	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500C02 D-2011	WG2285609	1	05/14/24 14:51	05/14/24 14:51	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 11:07	05/15/24 11:07	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 05:17	05/13/24 05:17	DYW	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

SH2-MW02 L1735016-12 GW

Collected by
Travis Whalen

Collected date/time
05/08/24 10:50

Received date/time
05/10/24 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2284539	1	05/11/24 09:24	05/13/24 12:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2285674	10	05/14/24 05:21	05/14/24 05:21	DLH	Mt. Juliet, TN
Wet Chemistry by Method 4500C02 D-2011	WG2285609	1	05/14/24 15:53	05/14/24 15:53	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2285461	1	05/15/24 11:09	05/15/24 11:09	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2285169	1	05/13/24 05:39	05/13/24 05:39	DYW	Mt. Juliet, TN

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1540		25.0	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	72.8		10.0	10	05/14/2024 02:08	WG2285674
Sulfate	812		50.0	10	05/14/2024 02:08	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	22.7	B T8	20.0	1	05/14/2024 13:21	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-01 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 09:14	WG2285461
Ethane	ND		0.0130	1	05/15/2024 09:14	WG2285461
Ethene	ND		0.0130	1	05/15/2024 09:14	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 09:14	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 18:56	WG2285161
Toluene	ND		0.00100	1	05/13/2024 18:56	WG2285161
Ethylbenzene	ND		0.00100	1	05/13/2024 18:56	WG2285161
Total Xylenes	ND		0.00300	1	05/13/2024 18:56	WG2285161
(S) Toluene-d8	101		80.0-120		05/13/2024 18:56	WG2285161
(S) 4-Bromofluorobenzene	89.7		77.0-126		05/13/2024 18:56	WG2285161
(S) 1,2-Dichloroethane-d4	120		70.0-130		05/13/2024 18:56	WG2285161

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1590		25.0	1	05/13/2024 12:22	WG2284539

¹ Cp

² Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	69.2		10.0	10	05/14/2024 02:47	WG2285674
Sulfate	829		50.0	10	05/14/2024 02:47	WG2285674

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	20.0	T8	20.0	1	05/14/2024 13:26	WG2285609

⁶ Qc

⁷ Gl

Sample Narrative:

L1735016-02 WG2285609: Endpoint pH 4.5 Headspace

⁸ Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 09:17	WG2285461
Ethane	ND		0.0130	1	05/15/2024 09:17	WG2285461
Ethene	ND		0.0130	1	05/15/2024 09:17	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 09:17	WG2285461

⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 19:15	WG2285161
Toluene	ND		0.00100	1	05/13/2024 19:15	WG2285161
Ethylbenzene	ND		0.00100	1	05/13/2024 19:15	WG2285161
Total Xylenes	ND		0.00300	1	05/13/2024 19:15	WG2285161
(S) Toluene-d8	97.4		80.0-120		05/13/2024 19:15	WG2285161
(S) 4-Bromofluorobenzene	83.6		77.0-126		05/13/2024 19:15	WG2285161
(S) 1,2-Dichloroethane-d4	123		70.0-130		05/13/2024 19:15	WG2285161

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1490		25.0	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	72.7		10.0	10	05/14/2024 02:59	WG2285674
Sulfate	818		50.0	10	05/14/2024 02:59	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	05/14/2024 13:57	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-03 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 09:25	WG2285461
Ethane	ND		0.0130	1	05/15/2024 09:25	WG2285461
Ethene	ND		0.0130	1	05/15/2024 09:25	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 09:25	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 02:21	WG2285169
Toluene	ND		0.00100	1	05/13/2024 02:21	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 02:21	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 02:21	WG2285169
(S) Toluene-d8	105		80.0-120		05/13/2024 02:21	WG2285169
(S) 4-Bromofluorobenzene	100		77.0-126		05/13/2024 02:21	WG2285169
(S) 1,2-Dichloroethane-d4	94.8		70.0-130		05/13/2024 02:21	WG2285169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1050		20.0	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	52.5		5.00	5	05/14/2024 03:12	WG2285674
Sulfate	416		25.0	5	05/14/2024 03:12	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	37.1	B T8	20.0	1	05/14/2024 14:04	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-04 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 09:31	WG2285461
Ethane	ND		0.0130	1	05/15/2024 09:31	WG2285461
Ethene	ND		0.0130	1	05/15/2024 09:31	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 09:31	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 02:43	WG2285169
Toluene	ND		0.00100	1	05/13/2024 02:43	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 02:43	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 02:43	WG2285169
(S) Toluene-d8	105		80.0-120		05/13/2024 02:43	WG2285169
(S) 4-Bromofluorobenzene	101		77.0-126		05/13/2024 02:43	WG2285169
(S) 1,2-Dichloroethane-d4	90.8		70.0-130		05/13/2024 02:43	WG2285169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1050		20.0	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	51.3		5.00	5	05/14/2024 03:25	WG2285674
Sulfate	384		25.0	5	05/14/2024 03:25	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	35.6	B T8	20.0	1	05/14/2024 14:13	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-05 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 09:35	WG2285461
Ethane	ND		0.0130	1	05/15/2024 09:35	WG2285461
Ethene	ND		0.0130	1	05/15/2024 09:35	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 09:35	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 03:05	WG2285169
Toluene	ND		0.00100	1	05/13/2024 03:05	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 03:05	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 03:05	WG2285169
(S) Toluene-d8	107		80.0-120		05/13/2024 03:05	WG2285169
(S) 4-Bromofluorobenzene	105		77.0-126		05/13/2024 03:05	WG2285169
(S) 1,2-Dichloroethane-d4	89.9		70.0-130		05/13/2024 03:05	WG2285169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1110		20.0	1	05/13/2024 12:22	WG2284539

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	53.3		5.00	5	05/14/2024 03:38	WG2285674
Sulfate	427		25.0	5	05/14/2024 03:38	WG2285674

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	24.7	B T8	20.0	1	05/14/2024 14:21	WG2285609

Sample Narrative:

L1735016-06 WG2285609: Endpoint pH 4.5 Headspace

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 09:39	WG2285461
Ethane	ND		0.0130	1	05/15/2024 09:39	WG2285461
Ethene	ND		0.0130	1	05/15/2024 09:39	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 09:39	WG2285461

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 03:27	WG2285169
Toluene	ND		0.00100	1	05/13/2024 03:27	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 03:27	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 03:27	WG2285169
(S) Toluene-d8	104		80.0-120		05/13/2024 03:27	WG2285169
(S) 4-Bromofluorobenzene	98.4		77.0-126		05/13/2024 03:27	WG2285169
(S) 1,2-Dichloroethane-d4	90.3		70.0-130		05/13/2024 03:27	WG2285169

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	885		13.3	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	48.8		1.00	1	05/14/2024 03:51	WG2285674
Sulfate	250		25.0	5	05/14/2024 06:25	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	05/14/2024 14:28	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-07 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 09:43	WG2285461
Ethane	ND		0.0130	1	05/15/2024 09:43	WG2285461
Ethene	ND		0.0130	1	05/15/2024 09:43	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 09:43	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 03:49	WG2285169
Toluene	ND		0.00100	1	05/13/2024 03:49	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 03:49	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 03:49	WG2285169
(S) Toluene-d8	104		80.0-120		05/13/2024 03:49	WG2285169
(S) 4-Bromofluorobenzene	98.8		77.0-126		05/13/2024 03:49	WG2285169
(S) 1,2-Dichloroethane-d4	94.8		70.0-130		05/13/2024 03:49	WG2285169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	744		13.3	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	46.3		1.00	1	05/14/2024 04:04	WG2285674
Sulfate	210		25.0	5	05/14/2024 06:38	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	05/14/2024 14:33	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-08 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 10:47	WG2285461
Ethane	ND		0.0130	1	05/15/2024 10:47	WG2285461
Ethene	ND		0.0130	1	05/15/2024 10:47	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 10:47	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 04:11	WG2285169
Toluene	ND		0.00100	1	05/13/2024 04:11	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 04:11	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 04:11	WG2285169
(S) Toluene-d8	108		80.0-120		05/13/2024 04:11	WG2285169
(S) 4-Bromofluorobenzene	105		77.0-126		05/13/2024 04:11	WG2285169
(S) 1,2-Dichloroethane-d4	92.3		70.0-130		05/13/2024 04:11	WG2285169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	822		20.0	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	46.4		1.00	1	05/14/2024 04:17	WG2285674
Sulfate	255		25.0	5	05/14/2024 06:51	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	ND	T8	20.0	1	05/14/2024 14:38	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-09 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 10:53	WG2285461
Ethane	ND		0.0130	1	05/15/2024 10:53	WG2285461
Ethene	ND		0.0130	1	05/15/2024 10:53	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 10:53	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 04:33	WG2285169
Toluene	ND		0.00100	1	05/13/2024 04:33	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 04:33	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 04:33	WG2285169
(S) Toluene-d8	106		80.0-120		05/13/2024 04:33	WG2285169
(S) 4-Bromofluorobenzene	104		77.0-126		05/13/2024 04:33	WG2285169
(S) 1,2-Dichloroethane-d4	92.8		70.0-130		05/13/2024 04:33	WG2285169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1020		20.0	1	05/13/2024 12:22	WG2284539

¹ Cp

² Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	121		5.00	5	05/14/2024 04:30	WG2285674
Sulfate	286		25.0	5	05/14/2024 04:30	WG2285674

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	36.8	B T8	20.0	1	05/14/2024 14:44	WG2285609

⁶ Qc

⁷ Gl

Sample Narrative:

L1735016-10 WG2285609: Endpoint pH 4.5 Headspace

⁸ Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 10:56	WG2285461
Ethane	ND		0.0130	1	05/15/2024 10:56	WG2285461
Ethene	ND		0.0130	1	05/15/2024 10:56	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 10:56	WG2285461

⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 04:55	WG2285169
Toluene	ND		0.00100	1	05/13/2024 04:55	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 04:55	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 04:55	WG2285169
(S) Toluene-d8	104		80.0-120		05/13/2024 04:55	WG2285169
(S) 4-Bromofluorobenzene	101		77.0-126		05/13/2024 04:55	WG2285169
(S) 1,2-Dichloroethane-d4	95.5		70.0-130		05/13/2024 04:55	WG2285169

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1990		50.0	1	05/13/2024 12:22	WG2284539

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	77.9		10.0	10	05/14/2024 04:42	WG2285674
Sulfate	1210		50.0	10	05/14/2024 04:42	WG2285674

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	24.9	B T8	20.0	1	05/14/2024 14:51	WG2285609

Sample Narrative:

L1735016-11 WG2285609: Endpoint pH 4.5 Headspace

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 11:07	WG2285461
Ethane	ND		0.0130	1	05/15/2024 11:07	WG2285461
Ethene	ND		0.0130	1	05/15/2024 11:07	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 11:07	WG2285461

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 05:17	WG2285169
Toluene	ND		0.00100	1	05/13/2024 05:17	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 05:17	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 05:17	WG2285169
(S) Toluene-d8	105		80.0-120		05/13/2024 05:17	WG2285169
(S) 4-Bromofluorobenzene	100		77.0-126		05/13/2024 05:17	WG2285169
(S) 1,2-Dichloroethane-d4	93.9		70.0-130		05/13/2024 05:17	WG2285169

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	1920		25.0	1	05/13/2024 12:22	WG2284539

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	71.9		10.0	10	05/14/2024 05:21	WG2285674
Sulfate	1110		50.0	10	05/14/2024 05:21	WG2285674

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	23.9	B T8	20.0	1	05/14/2024 15:53	WG2285609

6
Qc

7
Gl

Sample Narrative:

L1735016-12 WG2285609: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/15/2024 11:09	WG2285461
Ethane	ND		0.0130	1	05/15/2024 11:09	WG2285461
Ethene	ND		0.0130	1	05/15/2024 11:09	WG2285461
Acetylene	ND		0.0208	1	05/15/2024 11:09	WG2285461

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	05/13/2024 05:39	WG2285169
Toluene	ND		0.00100	1	05/13/2024 05:39	WG2285169
Ethylbenzene	ND		0.00100	1	05/13/2024 05:39	WG2285169
Total Xylenes	ND		0.00300	1	05/13/2024 05:39	WG2285169
(S) Toluene-d8	106		80.0-120		05/13/2024 05:39	WG2285169
(S) 4-Bromofluorobenzene	102		77.0-126		05/13/2024 05:39	WG2285169
(S) 1,2-Dichloroethane-d4	93.7		70.0-130		05/13/2024 05:39	WG2285169

Method Blank (MB)

(MB) R4070668-1 05/13/24 12:22

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

L1734828-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1734828-01 05/13/24 12:22 • (DUP) R4070668-3 05/13/24 12:22

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	224	232	1	3.51		10

L1734901-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1734901-01 05/13/24 12:22 • (DUP) R4070668-4 05/13/24 12:22

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	848	900	1	5.95		10

Laboratory Control Sample (LCS)

(LCS) R4070668-2 05/13/24 12:22

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8450	96.0	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4069337-1 05/13/24 23:46

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1735157-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1735157-01 05/14/24 00:12 • (DUP) R4069337-3 05/14/24 00:25

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	6.30	6.23	1	0.980		15
Sulfate	13.1	13.2	1	0.144		15

L1735157-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1735157-03 05/14/24 05:47 • (DUP) R4069337-6 05/14/24 06:00

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	5.91	5.91	1	0.00846		15
Sulfate	14.0	14.2	1	1.47		15

Laboratory Control Sample (LCS)

(LCS) R4069337-2 05/13/24 23:59

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	39.3	98.3	90.0-110	
Sulfate	40.0	40.6	101	90.0-110	

L1735157-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1735157-01 05/14/24 00:12 • (MS) R4069337-4 05/14/24 00:38 • (MSD) R4069337-5 05/14/24 00:51

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	6.30	44.4	44.7	95.4	95.9	1	80.0-120			0.478	15
Sulfate	40.0	13.1	52.0	52.1	97.2	97.3	1	80.0-120			0.0692	15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1735157-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1735157-03 05/14/24 05:47 • (MS) R4069337-7 05/14/24 06:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Chloride	40.0	5.91	43.8	94.7	1	80.0-120	
Sulfate	40.0	14.0	52.4	95.9	1	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4069583-3 05/14/24 12:47

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	9.89	⬇	6.67	20.0

Sample Narrative:
BLANK: Endpoint pH 4.5

L1734892-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1734892-02 05/14/24 13:00 • (DUP) R4069583-5 05/14/24 13:04

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	ND	ND	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

L1735063-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1735063-10 05/14/24 15:41 • (DUP) R4069583-7 05/14/24 15:46

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	ND	ND	1	0.000		20

Sample Narrative:
OS: Endpoint pH 4.5 Headspace
DUP: Endpoint pH 4.5

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4069870-2 05/15/24 09:01

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Acetylene	U		0.00558	0.0208

L1735016-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1735016-01 05/15/24 09:14 • (DUP) R4069870-3 05/15/24 10:50

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1735016-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1735016-09 05/15/24 10:53 • (DUP) R4069870-4 05/15/24 11:42

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4069870-1 05/15/24 08:58 • (LCSD) R4069870-7 05/15/24 11:51

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0620	0.0639	91.4	94.2	85.0-115			3.02	20
Ethane	0.129	0.116	0.116	89.9	89.9	85.0-115			0.000	20
Ethene	0.127	0.116	0.116	91.3	91.3	85.0-115			0.000	20
Acetylene	0.208	0.179	0.180	86.1	86.5	85.0-115			0.557	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1734687-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1734687-07 05/15/24 09:04 • (MS) R4069870-5 05/15/24 11:45 • (MSD) R4069870-6 05/15/24 11:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Methane	0.0678	0.669	0.732	0.734	92.9	95.9	1	50.0-150			0.273	20
Ethane	0.129	ND	0.141	0.143	109	111	1	50.0-150			1.41	20
Ethene	0.127	ND	0.138	0.139	109	109	1	50.0-150			0.722	20
Acetylene	0.208	ND	0.214	0.215	103	103	1	50.0-150			0.466	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4069489-2 05/13/24 09:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	96.3			80.0-120
(S) 4-Bromofluorobenzene	87.0			77.0-126
(S) 1,2-Dichloroethane-d4	121			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4069489-1 05/13/24 09:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00523	105	70.0-123	
Toluene	0.00500	0.00515	103	79.0-120	
Ethylbenzene	0.00500	0.00477	95.4	79.0-123	
Total Xylenes	0.0150	0.0139	92.7	79.0-123	
(S) Toluene-d8			98.8	80.0-120	
(S) 4-Bromofluorobenzene			91.8	77.0-126	
(S) 1,2-Dichloroethane-d4			118	70.0-130	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4070156-3 05/13/24 00:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	97.4			77.0-126
(S) 1,2-Dichloroethane-d4	91.1			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4070156-1 05/12/24 23:24 • (LCSD) R4070156-2 05/12/24 23:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00486	0.00472	97.2	94.4	70.0-123			2.92	20
Toluene	0.00500	0.00464	0.00476	92.8	95.2	79.0-120			2.55	20
Ethylbenzene	0.00500	0.00475	0.00479	95.0	95.8	79.0-123			0.839	20
Total Xylenes	0.0150	0.0144	0.0150	96.0	100	79.0-123			4.08	20
(S) Toluene-d8				103	103	80.0-120				
(S) 4-Bromofluorobenzene				101	98.9	77.0-126				
(S) 1,2-Dichloroethane-d4				91.4	96.1	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

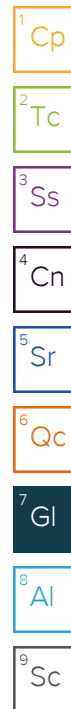
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

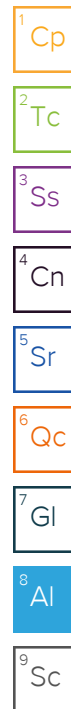
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

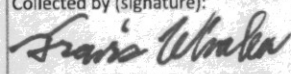
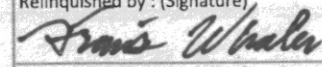
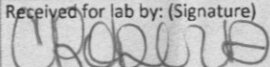
Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Terracon - Longmont, CO				Billing Information: Travis Whalen Charles Covington 1831 Lefthand Circle Suite B Longmont, CO 80501				Pres Chk		Analysis / Container / Preservative						Chain of Custody Page 1 of 2			
1831 Lefthand Circle Suite B Longmont, CO 80501				Email To: travis.whelen@terracon.com												 MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf			
Report to: Travis Whalen				Project Description: COL Annual GW Sampling		City/State Collected: Longmont, CO		Please Circle: PT ☒ MT ☐ CT ☐ ET ☐											
Phone: 303-454-5249		Client Project # 22227034 22237009 Tw		Lab Project # 22237009 TERRALCO-22227034 Tw												SDG # 11735016 B143			
Collected by (print): Travis Whalen		Site/Facility ID #		P.O. #												Acctnum: TERRALCO			
Collected by (signature): 		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote #												Template: T226963			
Immediately Packed on Ice N ☐ Y ☒				Date Results Needed Standard												Prelogin: P1068506			
																PM: 824 - Chris Ward			
																PB:			
																Shipped Via: FedEX Ground			
																Remarks			
																Sample # (lab only)			
Sample ID		Comp/Grab		Matrix *		Depth		Date		Time		No. of Cntrs							
SHI-MW01		Grab		GW		-		5/8/24		1320		9		X X X X X					
SHI-MW02		↓		GW		-		↓		1302		9		X X X X X					
SHI-MW03		↓		GW		-		↓		1240		9		X X X X X					
Tw SHI-MW01		Grab		GW		-		5/8/24		1050		9		X X X X X					
Tw SHI-MW02		↓		GW		-		↓		1050		9		X X X X X					
Tw SHI-MW03		↓		GW		-		↓		1040		9		X X X X X					
CL-MW01		Grab		GW		-		5/9/24		1005		9		X X X X X					
CL-MW02		↓		GW		-		↓		1120		9		X X X X X					
CL-MW03		↓		GW		-		↓		1040		9		X X X X X					
* Matrix:		SS - Soil		AIR - Air		F - Filter		GW - Groundwater		B - Bioassay		WW - WasteWater		DW - Drinking Water		OT - Other			
Remarks: Incorrect Project # was originally printed on labels and COC. 22237009 is correct Project #.		pH		Temp		Flow		Other											
Samples returned via:		Tracking #																	
Relinquished by: (Signature) 		Date: 5/9/24		Time: 1600		Received by: (Signature) Fed Ex		Trip Blank Received: Yes ☒ No ☐		HCL / MeOH TBR									
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: °C		Bottles Received: 108						If preservation required by Login: Date/Time			
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) 		Date: 05-10-24		Time: 0930		Hold:				Condition: NCF / OK			

[illegible]

Terracon - Longmont, CO

Sample Delivery Group: L1797625
Samples Received: 11/08/2024
Project Number: 22237009
Description: COL Annual GW Sampling

Report To: Travis Whalen
1831 Lefthand Circle
Suite B
Longmont, CO 80501

Entire Report Reviewed By:



Shane Gambill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	5
Sr: Sample Results	6
ST1-MW03 L1797625-01	6
ST1-MW02 L1797625-02	7
ST1-MW05 L1797625-03	8
S31-MW01 L1797625-04	9
S31-MW02 L1797625-05	10
S31-MW03 L1797625-06	11
S31-MW04 L1797625-07	12
S31-MW05 L1797625-08	13
S31-MW06 L1797625-09	14
Qc: Quality Control Summary	15
Gravimetric Analysis by Method 2540 C-2011	15
Wet Chemistry by Method 300.0	16
Wet Chemistry by Method 4500CO2 D-2011	18
Volatile Organic Compounds (GC) by Method RSK175	20
Volatile Organic Compounds (GC/MS) by Method 8260B	22
Gl: Glossary of Terms	23
Al: Accreditations & Locations	24
Sc: Sample Chain of Custody	25

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

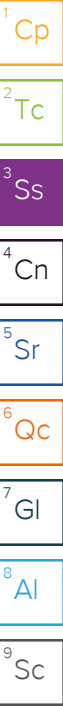
ST1-MW03 L1797625-01 GW

Collected by
Victoria Vollert

Collected date/time
11/07/24 11:50

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	1	11/12/24 21:27	11/12/24 21:27	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	100	11/13/24 18:49	11/13/24 18:49	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399463	1	11/11/24 11:56	11/11/24 11:56	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 18:36	11/12/24 18:36	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 09:21	11/14/24 09:21	DYW	Mt. Juliet, TN



ST1-MW02 L1797625-02 GW

Collected by
Victoria Vollert

Collected date/time
11/07/24 11:50

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	10	11/12/24 21:59	11/12/24 21:59	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	100	11/12/24 22:15	11/12/24 22:15	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399463	1	11/11/24 12:01	11/11/24 12:01	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 19:20	11/12/24 19:20	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 09:44	11/14/24 09:44	DYW	Mt. Juliet, TN

ST1-MW05 L1797625-03 GW

Collected by
Victoria Vollert

Collected date/time
11/06/24 11:50

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	100	11/12/24 22:31	11/12/24 22:31	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399463	1	11/11/24 12:06	11/11/24 12:06	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 19:29	11/12/24 19:29	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 10:07	11/14/24 10:07	DYW	Mt. Juliet, TN

S31-MW01 L1797625-04 GW

Collected by
Victoria Vollert

Collected date/time
11/06/24 13:30

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	100	11/13/24 19:05	11/13/24 19:05	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	5	11/12/24 22:47	11/12/24 22:47	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399463	1	11/11/24 12:11	11/11/24 12:11	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 19:38	11/12/24 19:38	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 10:30	11/14/24 10:30	DYW	Mt. Juliet, TN

S31-MW02 L1797625-05 GW

Collected by
Victoria Vollert

Collected date/time
11/06/24 14:00

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	1	11/12/24 23:19	11/12/24 23:19	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	50	11/12/24 23:35	11/12/24 23:35	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399463	1	11/11/24 12:16	11/11/24 12:16	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 19:42	11/12/24 19:42	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 10:53	11/14/24 10:53	DYW	Mt. Juliet, TN

SAMPLE SUMMARY

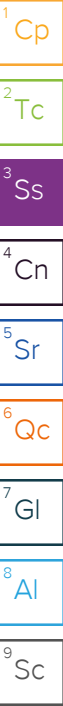
S31-MW03 L1797625-06 GW

Collected by
Victoria Vollert

Collected date/time
11/06/24 11:35

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	100	11/13/24 19:21	11/13/24 19:21	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	5	11/13/24 00:22	11/13/24 00:22	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399463	1	11/11/24 12:21	11/11/24 12:21	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 19:45	11/12/24 19:45	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 11:16	11/14/24 11:16	DYW	Mt. Juliet, TN



S31-MW04 L1797625-07 GW

Collected by
Victoria Vollert

Collected date/time
11/06/24 14:10

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	5	11/13/24 00:54	11/13/24 00:54	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	50	11/13/24 01:10	11/13/24 01:10	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399905	1	11/12/24 11:54	11/12/24 11:54	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 20:02	11/12/24 20:02	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 11:40	11/14/24 11:40	DYW	Mt. Juliet, TN

S31-MW05 L1797625-08 GW

Collected by
Victoria Vollert

Collected date/time
11/06/24 14:55

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	5	11/13/24 01:26	11/13/24 01:26	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	50	11/13/24 01:42	11/13/24 01:42	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399905	1	11/12/24 12:23	11/12/24 12:23	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 20:05	11/12/24 20:05	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 12:03	11/14/24 12:03	DYW	Mt. Juliet, TN

S31-MW06 L1797625-09 GW

Collected by
Victoria Vollert

Collected date/time
11/06/24 14:55

Received date/time
11/08/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2399108	1	11/10/24 13:17	11/11/24 13:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	5	11/13/24 01:58	11/13/24 01:58	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2398705	50	11/13/24 02:14	11/13/24 02:14	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 4500CO2 D-2011	WG2399905	1	11/12/24 12:27	11/12/24 12:27	BJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2399766	1	11/12/24 20:08	11/12/24 20:08	KHM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2401229	1	11/14/24 12:26	11/14/24 12:26	DYW	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Shane Gambill
Project Manager

Report Revision History

Level II Report - Version 1: 11/15/24 14:44

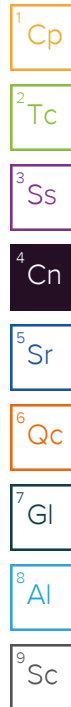
Project Narrative

L1797625-04,-05,-06,-07,-08,-09: Sample Ids revised to match the chain of custody.

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L1797625-08	S31-MW05	8260B



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	12400		200	1	11/11/2024 13:52	WG2399108

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	155		1.00	1	11/12/2024 21:27	WG2398705
Sulfate	7290		500	100	11/13/2024 18:49	WG2398705

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	27.0	T8	20.0	1	11/11/2024 11:56	WG2399463

6
Qc

7
Gl

Sample Narrative:

L1797625-01 WG2399463: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 18:36	WG2399766
Ethane	ND		0.0130	1	11/12/2024 18:36	WG2399766
Ethene	ND		0.0130	1	11/12/2024 18:36	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 18:36	WG2399766

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 09:21	WG2401229
Toluene	ND		0.00100	1	11/14/2024 09:21	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 09:21	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 09:21	WG2401229
(S) Toluene-d8	98.1		80.0-120		11/14/2024 09:21	WG2401229
(S) 4-Bromofluorobenzene	98.3		77.0-126		11/14/2024 09:21	WG2401229
(S) 1,2-Dichloroethane-d4	105		70.0-130		11/14/2024 09:21	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	26900		400	1	11/11/2024 13:52	WG2399108

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	912		10.0	10	11/12/2024 21:59	WG2398705
Sulfate	14800		500	100	11/12/2024 22:15	WG2398705

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	22.3	T8	20.0	1	11/11/2024 12:01	WG2399463

6
Qc

7
Gl

Sample Narrative:

L1797625-02 WG2399463: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 19:20	WG2399766
Ethane	ND		0.0130	1	11/12/2024 19:20	WG2399766
Ethene	ND		0.0130	1	11/12/2024 19:20	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 19:20	WG2399766

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 09:44	WG2401229
Toluene	ND		0.00100	1	11/14/2024 09:44	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 09:44	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 09:44	WG2401229
(S) Toluene-d8	99.3		80.0-120		11/14/2024 09:44	WG2401229
(S) 4-Bromofluorobenzene	96.6		77.0-126		11/14/2024 09:44	WG2401229
(S) 1,2-Dichloroethane-d4	107		70.0-130		11/14/2024 09:44	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	36600		400	1	11/11/2024 13:52	WG2399108

1 Cp

2 Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	2060		100	100	11/12/2024 22:31	WG2398705
Sulfate	19400		500	100	11/12/2024 22:31	WG2398705

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	48.8	T8	20.0	1	11/11/2024 12:06	WG2399463

6 Qc

7 Gl

Sample Narrative:

L1797625-03 WG2399463: Endpoint pH 4.5 Headspace

8 Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 19:29	WG2399766
Ethane	ND		0.0130	1	11/12/2024 19:29	WG2399766
Ethene	ND		0.0130	1	11/12/2024 19:29	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 19:29	WG2399766

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 10:07	WG2401229
Toluene	ND		0.00100	1	11/14/2024 10:07	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 10:07	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 10:07	WG2401229
(S) Toluene-d8	97.9		80.0-120		11/14/2024 10:07	WG2401229
(S) 4-Bromofluorobenzene	98.9		77.0-126		11/14/2024 10:07	WG2401229
(S) 1,2-Dichloroethane-d4	106		70.0-130		11/14/2024 10:07	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	20700		200	1	11/11/2024 13:52	WG2399108

1 Cp

2 Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	215		5.00	5	11/12/2024 22:47	WG2398705
Sulfate	12300		500	100	11/13/2024 19:05	WG2398705

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	65.1	T8	20.0	1	11/11/2024 12:11	WG2399463

6 Qc

7 Gl

Sample Narrative:

L1797625-04 WG2399463: Endpoint pH 4.5 Headspace

8 Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 19:38	WG2399766
Ethane	ND		0.0130	1	11/12/2024 19:38	WG2399766
Ethene	ND		0.0130	1	11/12/2024 19:38	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 19:38	WG2399766

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 10:30	WG2401229
Toluene	ND		0.00100	1	11/14/2024 10:30	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 10:30	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 10:30	WG2401229
(S) Toluene-d8	97.9		80.0-120		11/14/2024 10:30	WG2401229
(S) 4-Bromofluorobenzene	96.8		77.0-126		11/14/2024 10:30	WG2401229
(S) 1,2-Dichloroethane-d4	109		70.0-130		11/14/2024 10:30	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	11100		200	1	11/11/2024 13:52	WG2399108

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	177		1.00	1	11/12/2024 23:19	WG2398705
Sulfate	6390		250	50	11/12/2024 23:35	WG2398705

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	51.5	T8	20.0	1	11/11/2024 12:16	WG2399463

6
Qc

7
Gl

Sample Narrative:

L1797625-05 WG2399463: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 19:42	WG2399766
Ethane	ND		0.0130	1	11/12/2024 19:42	WG2399766
Ethene	ND		0.0130	1	11/12/2024 19:42	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 19:42	WG2399766

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 10:53	WG2401229
Toluene	ND		0.00100	1	11/14/2024 10:53	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 10:53	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 10:53	WG2401229
(S) Toluene-d8	99.3		80.0-120		11/14/2024 10:53	WG2401229
(S) 4-Bromofluorobenzene	99.7		77.0-126		11/14/2024 10:53	WG2401229
(S) 1,2-Dichloroethane-d4	106		70.0-130		11/14/2024 10:53	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	19900		200	1	11/11/2024 13:52	WG2399108

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	365		5.00	5	11/13/2024 00:22	WG2398705
Sulfate	11900		500	100	11/13/2024 19:21	WG2398705

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	31.4	T8	20.0	1	11/11/2024 12:21	WG2399463

6
Qc

7
Gl

Sample Narrative:

L1797625-06 WG2399463: Endpoint pH 4.5 Headspace

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 19:45	WG2399766
Ethane	ND		0.0130	1	11/12/2024 19:45	WG2399766
Ethene	ND		0.0130	1	11/12/2024 19:45	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 19:45	WG2399766

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 11:16	WG2401229
Toluene	ND		0.00100	1	11/14/2024 11:16	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 11:16	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 11:16	WG2401229
(S) Toluene-d8	98.6		80.0-120		11/14/2024 11:16	WG2401229
(S) 4-Bromofluorobenzene	96.9		77.0-126		11/14/2024 11:16	WG2401229
(S) 1,2-Dichloroethane-d4	108		70.0-130		11/14/2024 11:16	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	16000		200	1	11/11/2024 13:52	WG2399108

¹ Cp

² Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	236		5.00	5	11/13/2024 00:54	WG2398705
Sulfate	9190		250	50	11/13/2024 01:10	WG2398705

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	43.9	B T8	20.0	1	11/12/2024 11:54	WG2399905

⁶ Qc

⁷ Gl

Sample Narrative:

L1797625-07 WG2399905: Endpoint pH 4.5

⁸ Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 20:02	WG2399766
Ethane	ND		0.0130	1	11/12/2024 20:02	WG2399766
Ethene	ND		0.0130	1	11/12/2024 20:02	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 20:02	WG2399766

⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 11:40	WG2401229
Toluene	ND		0.00100	1	11/14/2024 11:40	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 11:40	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 11:40	WG2401229
(S) Toluene-d8	97.5		80.0-120		11/14/2024 11:40	WG2401229
(S) 4-Bromofluorobenzene	96.8		77.0-126		11/14/2024 11:40	WG2401229
(S) 1,2-Dichloroethane-d4	108		70.0-130		11/14/2024 11:40	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	10100		200	1	11/11/2024 13:52	WG2399108

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	343		5.00	5	11/13/2024 01:26	WG2398705
Sulfate	5220		250	50	11/13/2024 01:42	WG2398705

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	271	T8	20.0	1	11/12/2024 12:23	WG2399905

6
Qc

7
Gl

Sample Narrative:

L1797625-08 WG2399905: Endpoint pH 4.5

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	0.0130		0.0100	1	11/12/2024 20:05	WG2399766
Ethane	ND		0.0130	1	11/12/2024 20:05	WG2399766
Ethene	ND		0.0130	1	11/12/2024 20:05	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 20:05	WG2399766

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 12:03	WG2401229
Toluene	ND		0.00100	1	11/14/2024 12:03	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 12:03	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 12:03	WG2401229
(S) Toluene-d8	98.5		80.0-120		11/14/2024 12:03	WG2401229
(S) 4-Bromofluorobenzene	98.9		77.0-126		11/14/2024 12:03	WG2401229
(S) 1,2-Dichloroethane-d4	108		70.0-130		11/14/2024 12:03	WG2401229

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	14100		200	1	11/11/2024 13:52	WG2399108

1
Cp

2
Tc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	229		5.00	5	11/13/2024 01:58	WG2398705
Sulfate	8200		250	50	11/13/2024 02:14	WG2398705

3
Ss

4
Cn

5
Sr

Wet Chemistry by Method 4500CO2 D-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Free Carbon Dioxide	120	B T8	20.0	1	11/12/2024 12:27	WG2399905

6
Qc

7
Gl

Sample Narrative:

L1797625-09 WG2399905: Endpoint pH 4.5

8
Al

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	11/12/2024 20:08	WG2399766
Ethane	ND		0.0130	1	11/12/2024 20:08	WG2399766
Ethene	ND		0.0130	1	11/12/2024 20:08	WG2399766
Acetylene	ND		0.0208	1	11/12/2024 20:08	WG2399766

9
Sc

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	11/14/2024 12:26	WG2401229
Toluene	ND		0.00100	1	11/14/2024 12:26	WG2401229
Ethylbenzene	ND	J3	0.00100	1	11/14/2024 12:26	WG2401229
Total Xylenes	ND		0.00300	1	11/14/2024 12:26	WG2401229
(S) Toluene-d8	96.9		80.0-120		11/14/2024 12:26	WG2401229
(S) 4-Bromofluorobenzene	96.3		77.0-126		11/14/2024 12:26	WG2401229
(S) 1,2-Dichloroethane-d4	107		70.0-130		11/14/2024 12:26	WG2401229

Method Blank (MB)

(MB) R4145619-1 11/11/24 13:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1797625-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797625-01 11/11/24 13:52 • (DUP) R4145619-3 11/11/24 13:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	12400	12400	1	0.161		10

L1797979-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1797979-05 11/11/24 13:52 • (DUP) R4145619-4 11/11/24 13:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1770	1780	1	0.565		10

Laboratory Control Sample (LCS)

(LCS) R4145619-2 11/11/24 13:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8980	102	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4145584-1 11/12/24 16:10

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.547	1.00
Sulfate	U		0.637	5.00

L1797376-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797376-01 11/12/24 16:41 • (DUP) R4145584-3 11/12/24 16:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	43.4	43.4	1	0.103		15
Sulfate	43.2	43.2	1	0.0570		15

L1797520-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1797520-09 11/12/24 19:36 • (DUP) R4145584-5 11/12/24 20:24

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte		mg/l		%		%
Chloride		31.9	1	0.481		15
Sulfate		1960	1	0.0671	E	15

Laboratory Control Sample (LCS)

(LCS) R4145584-2 11/12/24 16:25

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	38.3	95.7	90.0-110	
Sulfate	40.0	37.4	93.5	90.0-110	

L1797376-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1797376-01 11/12/24 16:41 • (MS) R4145584-4 11/12/24 17:13

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	43.4	74.4	77.5	1	90.0-110	J6
Sulfate	40.0	43.2	76.1	82.1	1	90.0-110	J6

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1797520-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797520-09 11/12/24 19:36 • (MS) R4145584-6 11/12/24 20:40 • (MSD) R4145584-7 11/12/24 20:56

Analyte	Spike Amount mg/l	Original Result	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0		65.0	65.0	82.5	82.6	1	90.0-110	J6	J6	0.0580	15
Sulfate	40.0		1620	1620	0.000	0.000	1	90.0-110	EV	EV	0.202	15

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4144502-3 11/11/24 11:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Free Carbon Dioxide	U		6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1795999-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1795999-04 11/11/24 11:49 • (DUP) R4144502-5 11/11/24 11:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Free Carbon Dioxide	ND	ND	1	9.95		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1798107-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1798107-07 11/11/24 13:56 • (DUP) R4144502-7 11/11/24 13:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Free Carbon Dioxide	74.9	72.5	1	3.22		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4145079-3 11/12/24 10:16

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Free Carbon Dioxide	13.7	⬇	6.67	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1795999-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1795999-03 11/12/24 11:20 • (DUP) R4145079-5 11/12/24 11:25

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	121	117	1	3.76		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1798308-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1798308-01 11/12/24 14:01 • (DUP) R4145079-7 11/12/24 14:04

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Free Carbon Dioxide	46.7	39.3	1	17.2		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4145210-2 11/12/24 18:29

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Methane	U		0.00510	0.0100
Ethane	U		0.00340	0.0130
Ethene	U		0.00340	0.0130
Acetylene	U		0.00558	0.0208

L1797625-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1797625-01 11/12/24 18:36 • (DUP) R4145210-3 11/12/24 20:32

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

L1797855-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1797855-03 11/12/24 22:33 • (DUP) R4145210-4 11/12/24 23:37

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Acetylene	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4145210-1 11/12/24 18:11 • (LCSD) R4145210-7 11/13/24 00:18

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Methane	0.0678	0.0722	0.0762	106	112	85.0-115			5.39	20
Ethane	0.129	0.134	0.134	104	104	85.0-115			0.000	20
Ethene	0.127	0.132	0.131	104	103	85.0-115			0.760	20
Acetylene	0.208	0.205	0.202	98.6	97.1	85.0-115			1.47	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1797855-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1797855-01 11/12/24 22:19 • (MS) R4145210-5 11/12/24 23:54 • (MSD) R4145210-6 11/13/24 00:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Methane	0.0678	ND	0.0748	0.0790	110	117	1	50.0-150			5.46	20
Ethane	0.129	ND	0.147	0.149	114	116	1	50.0-150			1.35	20
Ethene	0.127	ND	0.143	0.145	113	114	1	50.0-150			1.39	20
Acetylene	0.208	ND	0.221	0.224	106	108	1	50.0-150			1.35	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4146493-3 11/14/24 04:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	98.8			80.0-120
(S) 4-Bromofluorobenzene	98.3			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4146493-1 11/14/24 03:33 • (LCSD) R4146493-2 11/14/24 03:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00528	0.00614	106	123	70.0-123			15.1	20
Toluene	0.00500	0.00468	0.00543	93.6	109	79.0-120			14.8	20
Ethylbenzene	0.00500	0.00449	0.00550	89.8	110	79.0-123		J3	20.2	20
Total Xylenes	0.0150	0.0136	0.0160	90.7	107	79.0-123			16.2	20
(S) Toluene-d8				96.8	96.2	80.0-120				
(S) 4-Bromofluorobenzene				100	101	77.0-126				
(S) 1,2-Dichloroethane-d4				103	101	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

ACCREDITATIONS & LOCATIONS

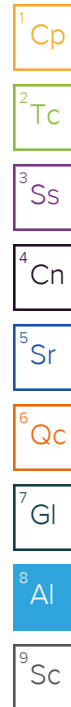
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

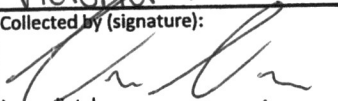
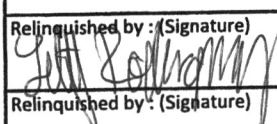
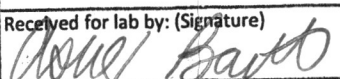
Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Company Name/Address: Terracon - Longmont, CO		Billing Information: Travis Whalen 1831 Lefthand Circle Suite B Longmont, CO 80501		Pres Chk		Analysis / Container / Preservative										Chain of Custody Page 1 of 1					
1831 Lefthand Circle Suite B Longmont, CO 80501		Report to: Travis Whalen		Email To: travis.whelen@terracon.com												 MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf					
Project Description: COL Annual GW Sampling		City/State Collected: Longmont, CO		Please Circle: PT MT CT ET												SDG # C206					
Phone: 303-454-5249		Client Project # 22237009		Lab Project # TERRALCO-22237009												Acctnum: TERRALCO Template: T226963 Prelogin: P1081489 PM: 824 - Chris Ward PB: KT 6/7/24					
Collected by (print): Victoria Voller		Site/Facility ID #		P.O. #												Shipped Via: FedEX Ground					
Collected by (signature): 		Rush? (Lab MUST Be Notified) Same Day Five Day Next Day 5 Day (Rad Only) Two Day 10 Day (Rad Only) Three Day		Quote # Standard												Remarks					
Immediately Packed on Ice N Y ☒		Date Results Needed Standard		No. of Cntrs												Sample # (lab only)					
Sample ID		Comp/Grab		Matrix *		Depth		Date		Time											
ST1-MW03		Grab		GW		11/7/24		1150		9		X X X X X									
ST1-MW02		Grab		GW		11/7/24		1150		9		X X X X X									
ST1-MW05		Grab		GW		11/6/24		1150		9		X X X X X									
S31-MW01		Grab		GW		11/6/24		1330		9		X X X X X									
S31-MW02		Grab		GW		11/6/24		1400		9		X X X X X									
S31-MW03		Grab		GW		11/6/24		1135		9		X X X X X									
S31-MW04		Grab		GW		11/6/24		1410		9		X X X X X									
S31-MW05		Grab		GW		11/6/24		1455		9		X X X X X									
S31-MW06		Grab		GW		11/6/24		1455		9		X X X X X									
				GW						9		X X X X X									
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks:		pH Temp Flow Other												Sample Receipt Checklist COC Seal Present/Intact: ☒ NP Y N COC Signed/Accurate: ☒ Y N Bottles arrive intact: ☒ Y N Correct bottles used: ☒ Y N Sufficient volume sent: ☒ Y N If Applicable VOA Zero Headspace: ☒ Y N Preservation Correct/Checked: ☒ Y N RAD Screen <0.5 mR/hr: ☒ Y N					
Samples returned via: UPS ☒ FedEx ☐ Courier		Tracking # 7210 2108 9824																			
Relinquished by: (Signature) 		Date: 11/7/24		Time: 1400		Received by: (Signature)		Trip Blank Received: Yes ☒ No ☐ HCL/MeOH TBR													
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: °C		Bottles Received: 81		If preservation required by Login: Date/Time									
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) 		Date: 11/08/2024		Time: 0900		Hold: Condition: NCF ☒ OK									

