



# ANALYTICAL REPORT

April 25, 2024

Revised Report

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

## Terra Energy Partners

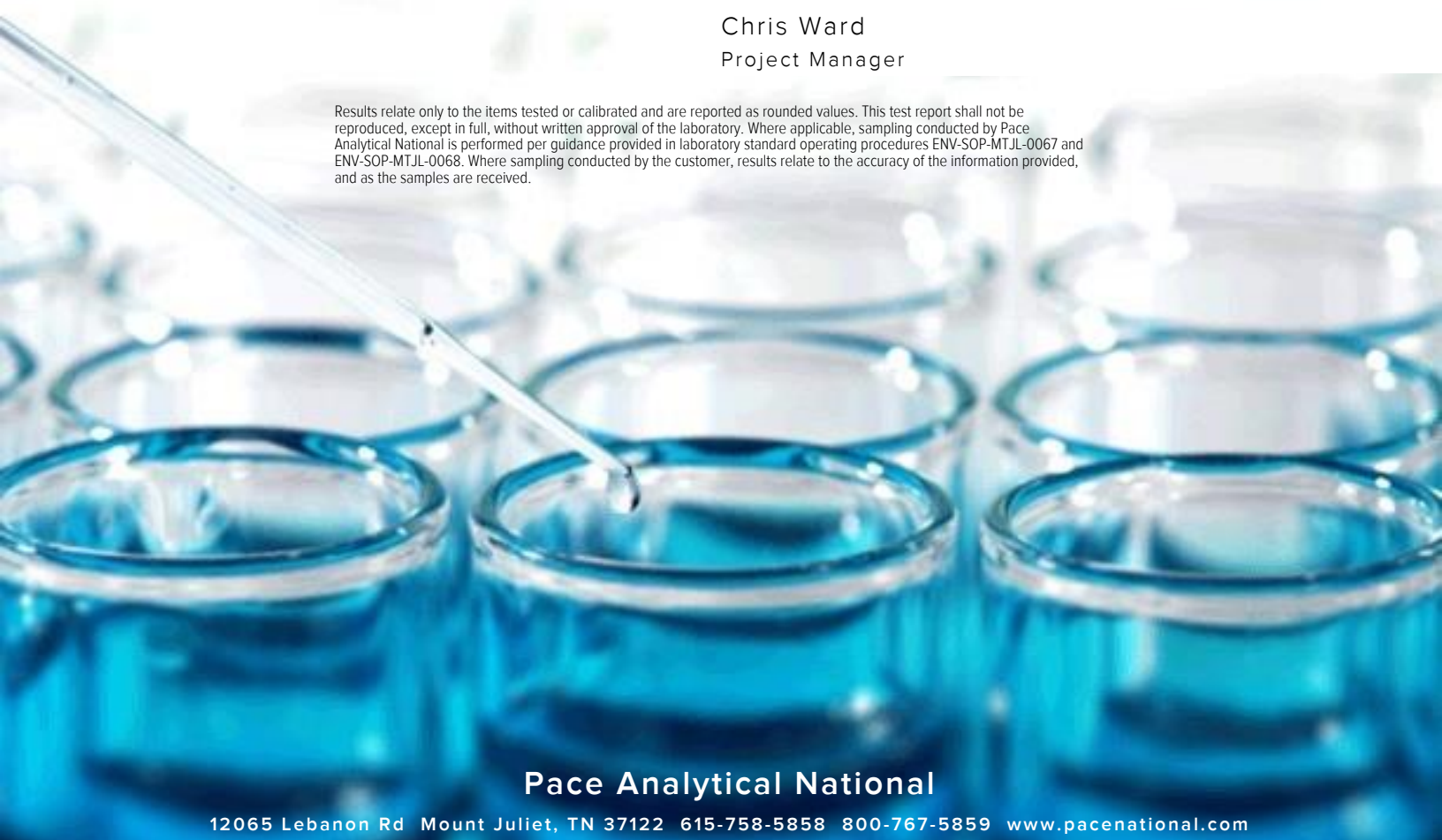
Sample Delivery Group: L1721536  
 Samples Received: 04/03/2024  
 Project Number:  
 Description:  
 Site: RWF 13-19  
 Report To: Kris Rowe / Mike Gardner /Bruce Smith  
 743 Horizon Ct. Suite 330  
 Grand Junction, CO 81506

Entire Report Reviewed By:

**[Preliminary Report]**

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.

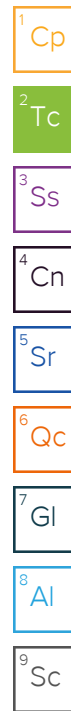


**Pace Analytical National**

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# TABLE OF CONTENTS

<b>Cp: Cover Page</b>	1
<b>Tc: Table of Contents</b>	2
<b>Ss: Sample Summary</b>	3
<b>Cn: Case Narrative</b>	4
<b>Sr: Sample Results</b>	5
NAUGLE 202848 L1721536-03	5
NAUGLE 67992-F- L1721536-04	7
TRIP BLANK L1721536-05	9
<b>Qc: Quality Control Summary</b>	10
Gravimetric Analysis by Method 2540 C-2011	10
Wet Chemistry by Method 2320 B-2011	11
Wet Chemistry by Method 353.2	13
Wet Chemistry by Method 365.4	14
Wet Chemistry by Method 9040C	15
Wet Chemistry by Method 9050A	16
Wet Chemistry by Method 9056A	17
Metals (ICP) by Method 6010B	19
Volatile Organic Compounds (GC) by Method 8015D/GRO	21
Volatile Organic Compounds (GC) by Method RSK175	22
Volatile Organic Compounds (GC/MS) by Method 8260B	25
Semi-Volatile Organic Compounds (GC) by Method 8015M	27
<b>Gl: Glossary of Terms</b>	28
<b>Al: Accreditations &amp; Locations</b>	29
<b>Sc: Sample Chain of Custody</b>	30



# SAMPLE SUMMARY

## NAUGLE 202848 L1721536-03 GW

Collected by: **AJK**  
 Collected date/time: **04/02/24 12:30**  
 Received date/time: **04/03/24 09:00**

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Microbiology by Method BART	WG2259583	1	04/13/24 09:41	04/13/24 09:41	CAY	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2260037	1	04/03/24 23:46	04/05/24 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2260193	1	04/04/24 10:36	04/04/24 10:36	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2260817	20	04/10/24 01:12	04/10/24 01:12	AEC	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG2260862	1	04/04/24 11:30	04/04/24 23:38	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2260682	1	04/04/24 21:10	04/04/24 21:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2260659	1	04/06/24 23:30	04/06/24 23:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2259572	10	04/03/24 19:38	04/03/24 19:38	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2259572	100	04/03/24 19:51	04/03/24 19:51	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2259671	1	04/04/24 08:25	04/04/24 13:53	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2261580	1	04/07/24 08:04	04/07/24 08:04	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2259606	1	04/04/24 12:10	04/04/24 12:10	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2261132	1	04/05/24 14:24	04/05/24 14:24	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2262351	1	04/08/24 17:17	04/09/24 03:06	KAP	Mt. Juliet, TN



## NAUGLE 67992-F- L1721536-04 GW

Collected by: **AJK**  
 Collected date/time: **04/02/24 11:30**  
 Received date/time: **04/03/24 09:00**

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Microbiology by Method BART	WG2259583	1	04/13/24 09:41	04/13/24 09:41	CAY	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2260037	1	04/03/24 23:46	04/05/24 17:17	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2260193	1	04/04/24 10:40	04/04/24 10:40	BJM	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2260817	1	04/10/24 01:14	04/10/24 01:14	AEC	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG2260862	1	04/04/24 11:30	04/04/24 23:39	BMD	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2260682	1	04/04/24 21:10	04/04/24 21:10	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2260659	1	04/06/24 23:30	04/06/24 23:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2259572	10	04/03/24 20:05	04/03/24 20:05	GEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2259572	100	04/03/24 20:18	04/03/24 20:18	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2259671	1	04/04/24 08:25	04/04/24 13:55	JTM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2261580	1	04/07/24 08:27	04/07/24 08:27	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2260671	1	04/07/24 14:37	04/07/24 14:37	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2261132	1	04/05/24 14:43	04/05/24 14:43	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2262351	1	04/08/24 17:17	04/09/24 03:27	KAP	Mt. Juliet, TN

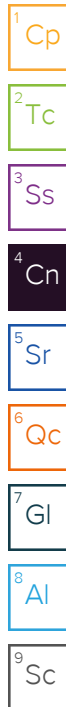
## TRIP BLANK L1721536-05 GW

Collected by: **AJK**  
 Collected date/time: **04/02/24 00:00**  
 Received date/time: **04/03/24 09:00**

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2260757	1	04/04/24 22:15	04/04/24 22:15	ACG	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.



## [Preliminary Report]

Chris Ward  
Project Manager

### Report Revision History

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Level II Report - Version 1: 04/15/24 15:48

### Project Narrative

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The following reactions were observed on one or more samples within this SDG.

- BR Brown Ring
- CL Cloudy Growth
- FO Foam
- BB Blackened Base
- BT Blackening around Ball
- SR Slime Ring around Ball
- PB Pale Blue Glow in UV Light

Separated Report to display samples separately per client request - Tony Gibson 04/25/2024

### Sample Delivery Group (SDG) Narrative

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The Laboratory is not accredited for specific analytes on the associated Sample/Method. These analytes are flagged in the Sample Results section of the report with an asterisk (\*).

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1721536-03</a>	<a href="#">NAUGLE 202848</a>	9056A
<a href="#">L1721536-04</a>	<a href="#">NAUGLE 67992-F-</a>	9056A

Microbiology by Method BART

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Iron Related Bacteria	Present		1	04/13/2024 09:41	WG2259583
Slime Forming Bacteria	Absent		1	04/13/2024 09:41	WG2259583
Sulfate Reducing Bacteria	Absent		1	04/13/2024 09:41	WG2259583

Sample Narrative:

L1721536-03 WG2259583: IRB Approximate Population=<1 CFU/mL. Reactions=FO/BR.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4300		100	1	04/05/2024 17:17	<a href="#">WG2260037</a>

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	379		8.45	20.0	1	04/04/2024 10:36	<a href="#">WG2260193</a>
Alkalinity,Bicarbonate	379		8.45	20.0	1	04/04/2024 10:36	<a href="#">WG2260193</a>
Alkalinity,Carbonate	U		8.45	20.0	1	04/04/2024 10:36	<a href="#">WG2260193</a>
Alkalinity,Hydroxide	U		8.45	20.0	1	04/04/2024 10:36	<a href="#">WG2260193</a>

Sample Narrative:

L1721536-03 WG2260193: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	20.1		1.00	2.00	20	04/10/2024 01:12	<a href="#">WG2260817</a>

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus>Total	U		0.0350	0.100	1	04/04/2024 23:38	<a href="#">WG2260862</a>

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.63	<a href="#">T8</a>	1	04/04/2024 21:10	<a href="#">WG2260682</a>

Sample Narrative:

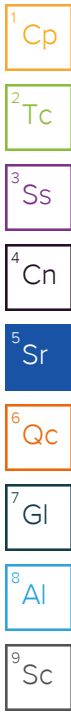
L1721536-03 WG2260682: 7.63 at 18.9C

Wet Chemistry by Method 9050A

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	5810		10.0	1	04/06/2024 23:30	<a href="#">WG2260659</a>

Sample Narrative:

L1721536-03 WG2260659: at 25C



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
*Bromide	U		3.53	10.0	10	04/03/2024 19:38	<a href="#">WG2259572</a>
Chloride	470		3.79	10.0	10	04/03/2024 19:38	<a href="#">WG2259572</a>
Fluoride	0.711	J	0.640	1.50	10	04/03/2024 19:38	<a href="#">WG2259572</a>
Nitrate as (N)	22.6		0.480	1.00	10	04/03/2024 19:38	<a href="#">WG2259572</a>
Nitrite as (N)	0.946	J	0.420	1.00	10	04/03/2024 19:38	<a href="#">WG2259572</a>
Sulfate	2020		59.4	500	100	04/03/2024 19:51	<a href="#">WG2259572</a>

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

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Barium,Dissolved	0.00846		0.000736	0.00500	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Boron,Dissolved	0.125	J	0.0200	0.200	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Calcium,Dissolved	432		0.0793	1.00	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Iron,Dissolved	U		0.0180	0.100	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Magnesium,Dissolved	204		0.0853	1.00	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Manganese,Dissolved	0.371		0.000934	0.0100	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Potassium,Dissolved	8.03		0.261	2.00	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Selenium,Dissolved	0.0483		0.00735	0.0100	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Sodium,Dissolved	792		0.504	3.00	1	04/04/2024 13:53	<a href="#">WG2259671</a>
Strontium,Dissolved	5.64		0.000640	0.0100	1	04/04/2024 13:53	<a href="#">WG2259671</a>

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPH (GC/FID) Low Fraction	U		31.4	100	1	04/07/2024 08:04	<a href="#">WG2261580</a>
(S) a,a,a-Trifluorotoluene(FID)	91.4			78.0-120		04/07/2024 08:04	<a href="#">WG2261580</a>

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	39.4		2.91	10.0	1	04/04/2024 12:10	<a href="#">WG2259606</a>
Ethane	U		4.07	13.0	1	04/04/2024 12:10	<a href="#">WG2259606</a>
Propane	U		5.48	18.6	1	04/04/2024 12:10	<a href="#">WG2259606</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	04/05/2024 14:24	<a href="#">WG2261132</a>
Toluene	U		0.278	1.00	1	04/05/2024 14:24	<a href="#">WG2261132</a>
Ethylbenzene	U		0.137	1.00	1	04/05/2024 14:24	<a href="#">WG2261132</a>
Xylenes, Total	U		0.174	3.00	1	04/05/2024 14:24	<a href="#">WG2261132</a>
(S) Toluene-d8	103			80.0-120		04/05/2024 14:24	<a href="#">WG2261132</a>
(S) 4-Bromofluorobenzene	116			77.0-126		04/05/2024 14:24	<a href="#">WG2261132</a>
(S) 1,2-Dichloroethane-d4	133	J1		70.0-130		04/05/2024 14:24	<a href="#">WG2261132</a>

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C10-C28 Diesel Range	U		22.2	100	1	04/09/2024 03:06	<a href="#">WG2262351</a>
C28-C36 Motor Oil Range	U		11.8	100	1	04/09/2024 03:06	<a href="#">WG2262351</a>
(S) o-Terphenyl	90.0			52.0-156		04/09/2024 03:06	<a href="#">WG2262351</a>

Microbiology by Method BART

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Iron Related Bacteria	Present		1	04/13/2024 09:41	WG2259583
Slime Forming Bacteria	Present		1	04/13/2024 09:41	WG2259583
Sulfate Reducing Bacteria	Present		1	04/13/2024 09:41	WG2259583

Sample Narrative:

L1721536-04 WG2259583: IRB Approximate Population=9000 CFU/mL. Reactions=FO/BR.  
 L1721536-04 WG2259583: SLYM Approximate Population=500 CFU/mL. Reactions=PB/CL/SR.  
 L1721536-04 WG2259583: SRB Approximate Population=27000 CFU/mL. Reactions=BT/BB.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4630		100	1	04/05/2024 17:17	<a href="#">WG2260037</a>

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	426		8.45	20.0	1	04/04/2024 10:40	<a href="#">WG2260193</a>
Alkalinity,Bicarbonate	426		8.45	20.0	1	04/04/2024 10:40	<a href="#">WG2260193</a>
Alkalinity,Carbonate	U		8.45	20.0	1	04/04/2024 10:40	<a href="#">WG2260193</a>
Alkalinity,Hydroxide	U		8.45	20.0	1	04/04/2024 10:40	<a href="#">WG2260193</a>

Sample Narrative:

L1721536-04 WG2260193: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	4.31		0.0500	0.100	1	04/10/2024 01:14	<a href="#">WG2260817</a>

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus,Total	U		0.0350	0.100	1	04/04/2024 23:39	<a href="#">WG2260862</a>

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.53	<a href="#">T8</a>	1	04/04/2024 21:10	<a href="#">WG2260682</a>

Sample Narrative:

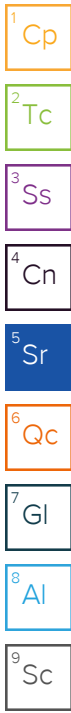
L1721536-04 WG2260682: 7.53 at 19.3C

Wet Chemistry by Method 9050A

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	6780		10.0	1	04/06/2024 23:30	<a href="#">WG2260659</a>

Sample Narrative:

L1721536-04 WG2260659: at 25C



Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
*Bromide	U		3.53	10.0	10	04/03/2024 20:05	<a href="#">WG2259572</a>
Chloride	858		3.79	10.0	10	04/03/2024 20:05	<a href="#">WG2259572</a>
Fluoride	0.704	J	0.640	1.50	10	04/03/2024 20:05	<a href="#">WG2259572</a>
Nitrate as (N)	9.29		0.480	1.00	10	04/03/2024 20:05	<a href="#">WG2259572</a>
Nitrite as (N)	1.54		0.420	1.00	10	04/03/2024 20:05	<a href="#">WG2259572</a>
Sulfate	2160		59.4	500	100	04/03/2024 20:18	<a href="#">WG2259572</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Barium,Dissolved	0.0177		0.000736	0.00500	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Boron,Dissolved	0.140	J	0.0200	0.200	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Calcium,Dissolved	473		0.0793	1.00	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Iron,Dissolved	0.194		0.0180	0.100	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Magnesium,Dissolved	195		0.0853	1.00	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Manganese,Dissolved	0.128		0.000934	0.0100	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Potassium,Dissolved	9.22		0.261	2.00	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Selenium,Dissolved	0.0429		0.00735	0.0100	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Sodium,Dissolved	984		0.504	3.00	1	04/04/2024 13:55	<a href="#">WG2259671</a>
Strontium,Dissolved	4.72		0.000640	0.0100	1	04/04/2024 13:55	<a href="#">WG2259671</a>

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPH (GC/FID) Low Fraction	U		31.4	100	1	04/07/2024 08:27	<a href="#">WG2261580</a>
(S) a,a,a-Trifluorotoluene(FID)	91.5			78.0-120		04/07/2024 08:27	<a href="#">WG2261580</a>

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Methane	U		2.91	10.0	1	04/07/2024 14:37	<a href="#">WG2260671</a>
Ethane	U		4.07	13.0	1	04/07/2024 14:37	<a href="#">WG2260671</a>
Propane	U		5.48	18.6	1	04/07/2024 14:37	<a href="#">WG2260671</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	04/05/2024 14:43	<a href="#">WG2261132</a>
Toluene	U		0.278	1.00	1	04/05/2024 14:43	<a href="#">WG2261132</a>
Ethylbenzene	U		0.137	1.00	1	04/05/2024 14:43	<a href="#">WG2261132</a>
Xylenes, Total	U		0.174	3.00	1	04/05/2024 14:43	<a href="#">WG2261132</a>
(S) Toluene-d8	98.5			80.0-120		04/05/2024 14:43	<a href="#">WG2261132</a>
(S) 4-Bromofluorobenzene	107			77.0-126		04/05/2024 14:43	<a href="#">WG2261132</a>
(S) 1,2-Dichloroethane-d4	132	J1		70.0-130		04/05/2024 14:43	<a href="#">WG2261132</a>

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
C10-C28 Diesel Range	48.7	J	22.2	100	1	04/09/2024 03:27	<a href="#">WG2262351</a>
C28-C36 Motor Oil Range	U		11.8	100	1	04/09/2024 03:27	<a href="#">WG2262351</a>
(S) o-Terphenyl	91.0			52.0-156		04/09/2024 03:27	<a href="#">WG2262351</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	04/04/2024 22:15	<a href="#">WG2260757</a>
Toluene	U		0.278	1.00	1	04/04/2024 22:15	<a href="#">WG2260757</a>
Ethylbenzene	U		0.137	1.00	1	04/04/2024 22:15	<a href="#">WG2260757</a>
Xylenes, Total	U		0.174	3.00	1	04/04/2024 22:15	<a href="#">WG2260757</a>
<i>(S) Toluene-d8</i>	107			80.0-120		04/04/2024 22:15	<a href="#">WG2260757</a>
<i>(S) 4-Bromofluorobenzene</i>	103			77.0-126		04/04/2024 22:15	<a href="#">WG2260757</a>
<i>(S) 1,2-Dichloroethane-d4</i>	109			70.0-130		04/04/2024 22:15	<a href="#">WG2260757</a>

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

Method Blank (MB)

(MB) R4055610-1 04/05/24 17:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10.0	10.0

1 Cp

2 Tc

3 Ss

L1721739-34 Original Sample (OS) • Duplicate (DUP)

(OS) L1721739-34 04/05/24 17:17 • (DUP) R4055610-3 04/05/24 17:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	3090	3110	1	0.807		10

4 Cn

5 Sr

L1721739-59 Original Sample (OS) • Duplicate (DUP)

(OS) L1721739-59 04/05/24 17:17 • (DUP) R4055610-4 04/05/24 17:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1440	1440	1	0.348		10

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R4055610-2 04/05/24 17:17

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800	8660	98.4	85.0-115	

9 Sc

Method Blank (MB)

(MB) R4053704-2 04/04/24 08:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Alkalinity	U		8.45	20.0
Alkalinity,Bicarbonate	U		8.45	20.0
Alkalinity,Carbonate	U		8.45	20.0
Alkalinity,Hydroxide	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1721012-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1721012-02 04/04/24 09:17 • (DUP) R4053704-3 04/04/24 09:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	U	U	1	0.000		20
Alkalinity,Bicarbonate	U	U	1	0.000		20
Alkalinity,Carbonate	U	U	1	0.000		20
Alkalinity,Hydroxide	U	U	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1721641-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1721641-01 04/04/24 11:03 • (DUP) R4053704-4 04/04/24 11:07

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Alkalinity	400	395	1	1.49		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4053704-1 04/04/24 08:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	100	105	105	90.0-110	

Sample Narrative:

LCS: 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) R4056212-1 04/09/24 23:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Nitrate-Nitrite	U		0.0500	0.100

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1721263-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1721263-01 04/09/24 23:58 • (DUP) R4056212-3 04/10/24 00:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate-Nitrite	0.466	0.437	1	6.42		20

L1721267-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1721267-01 04/10/24 00:31 • (DUP) R4056212-6 04/10/24 00:34

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Nitrate-Nitrite	0.105	0.105	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4056212-2 04/09/24 23:56

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Nitrate-Nitrite	2.50	2.49	99.6	90.0-110	

L1721263-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1721263-01 04/09/24 23:58 • (MS) R4056212-4 04/10/24 00:02 • (MSD) R4056212-5 04/10/24 00:05

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrate-Nitrite	2.50	0.466	2.63	2.75	86.5	91.2	1	90.0-110	J6		4.32	20

L1721267-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1721267-01 04/10/24 00:31 • (MS) R4056212-7 04/10/24 00:36

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Nitrate-Nitrite	2.50	0.105	2.35	89.8	1	90.0-110	J6

Method Blank (MB)

(MB) R4054061-1 04/04/24 23:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Phosphorus,Total	U		0.0350	0.100

1 Cp

2 Tc

3 Ss

L1721478-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1721478-02 04/04/24 23:31 • (DUP) R4054061-3 04/04/24 23:33

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Phosphorus,Total	0.221	0.230	1	3.99		20

4 Cn

5 Sr

L1721573-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1721573-01 04/05/24 00:59 • (DUP) R4054061-6 04/05/24 01:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Phosphorus,Total	7.02	6.56	2	6.77		20

6 Qc

7 Gl

8 Al

Laboratory Control Sample (LCS)

(LCS) R4054061-2 04/04/24 23:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Phosphorus,Total	1.81	1.98	110	85.0-115	

L1721857-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1721857-01 04/04/24 23:56 • (MS) R4054061-4 04/04/24 23:59 • (MSD) R4054061-5 04/05/24 00:01

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Phosphorus,Total	2.50	0.193	2.69	1.21	99.9	40.7	1	90.0-110		J3 J6	75.9	20

9 Sc

L1721536-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1721536-01 04/04/24 21:10 • (DUP) R4054015-2 04/04/24 21:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.76	7.77	1	0.129		1

Sample Narrative:

OS: 7.76 at 18.8C  
 DUP: 7.77 at 18.8C

L1722285-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1722285-05 04/04/24 21:10 • (DUP) R4054015-3 04/04/24 21:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.60	7.61	1	0.131		1

Sample Narrative:

OS: 7.6 at 18.8C  
 DUP: 7.61 at 18.8C

Laboratory Control Sample (LCS)

(LCS) R4054015-1 04/04/24 21:10

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 20.1C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4054698-1 04/06/24 23:30

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1720791-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1720791-01 04/06/24 23:30 • (DUP) R4054698-3 04/06/24 23:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Specific Conductance	787	783	1	0.510		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1721836-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1721836-04 04/06/24 23:30 • (DUP) R4054698-4 04/06/24 23:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Specific Conductance	799	804	1	0.624		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4054698-2 04/06/24 23:30

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	330	101	85.0-115	

Sample Narrative:

LCS: at 25C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4053972-1 04/03/24 11:00

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Bromide	U		0.353	1.00
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Nitrate as (N)	U		0.0480	0.100
Nitrite as (N)	U		0.0420	0.100
Sulfate	U		0.594	5.00

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

L1721473-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1721473-04 04/03/24 16:56 • (DUP) R4053972-3 04/03/24 17:10

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Bromide	U	U	1	0.000		15
Chloride	170	169	1	0.752		15
Fluoride	0.181	0.185	1	1.97		15
Nitrate as (N)	3.31	3.28	1	0.962		15
Nitrite as (N)	0.251	0.227	1	9.88		15
Sulfate	610	608	1	0.301	FE	15

6 Qc

7 Gl

8 Al

9 Sc

L1721473-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1721473-04 04/03/24 17:24 • (DUP) R4053972-4 04/03/24 17:37

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Sulfate	595	609	10	2.31		15

Laboratory Control Sample (LCS)

(LCS) R4053972-2 04/03/24 11:13

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Bromide	40.0	38.3	95.7	80.0-120	
Chloride	40.0	39.3	98.3	80.0-120	
Fluoride	8.00	7.89	98.6	80.0-120	
Nitrate as (N)	8.00	7.55	94.4	80.0-120	
Nitrite as (N)	8.00	7.94	99.3	80.0-120	
Sulfate	40.0	38.6	96.5	80.0-120	

L1721473-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1721473-04 04/03/24 16:56 • (MS) R4053972-5 04/03/24 17:51 • (MSD) R4053972-6 04/03/24 18:03

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 %
Bromide	40.0	U	U	U	0.000	0.000	1	80.0-120	<u>J6</u>	<u>J6</u>	0.000	15
Chloride	40.0	170	176	175	14.5	12.1	1	80.0-120	<u>V</u>	<u>V</u>	0.546	15
Fluoride	8.00	0.181	8.89	8.69	109	106	1	80.0-120			2.28	15
Nitrate as (N)	8.00	3.31	10.7	10.7	92.8	92.8	1	80.0-120			0.0149	15
Nitrite as (N)	8.00	0.251	8.17	8.07	98.9	97.8	1	80.0-120			1.17	15
Sulfate	40.0	610	556	554	0.000	0.000	1	80.0-120	<u>EV</u>	<u>EV</u>	0.362	15

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

Method Blank (MB)

(MB) R4053814-1 04/04/24 13:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Barium,Dissolved	U		0.000736	0.00500
Boron,Dissolved	U		0.0200	0.200
Calcium,Dissolved	U		0.0793	1.00
Iron,Dissolved	U		0.0180	0.100
Magnesium,Dissolved	U		0.0853	1.00
Manganese,Dissolved	U		0.000934	0.0100
Potassium,Dissolved	U		0.261	2.00
Selenium,Dissolved	U		0.00735	0.0100
Sodium,Dissolved	U		0.504	3.00
Strontium,Dissolved	U		0.000640	0.0100

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

Laboratory Control Sample (LCS)

(LCS) R4053814-2 04/04/24 13:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Barium,Dissolved	1.00	0.975	97.5	80.0-120	
Boron,Dissolved	1.00	0.952	95.2	80.0-120	
Calcium,Dissolved	10.0	10.1	101	80.0-120	
Iron,Dissolved	10.0	9.81	98.1	80.0-120	
Magnesium,Dissolved	10.0	9.16	91.6	80.0-120	
Manganese,Dissolved	1.00	0.960	96.0	80.0-120	
Potassium,Dissolved	10.0	8.81	88.1	80.0-120	
Selenium,Dissolved	1.00	0.891	89.1	80.0-120	
Sodium,Dissolved	10.0	9.75	97.5	80.0-120	
Strontium,Dissolved	1.00	1.01	101	80.0-120	

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1721303-55 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1721303-55 04/04/24 13:27 • (MS) R4053814-4 04/04/24 13:30 • (MSD) R4053814-5 04/04/24 13:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Barium,Dissolved	1.00	0.539	1.55	1.52	101	98.4	1	75.0-125			1.92	20
Boron,Dissolved	1.00	0.0503	1.04	1.04	98.5	98.7	1	75.0-125			0.189	20
Calcium,Dissolved	10.0	47.3	60.3	60.4	130	130	1	75.0-125	<u>V</u>	<u>V</u>	0.106	20
Iron,Dissolved	10.0	0.0469	10.1	10.4	101	104	1	75.0-125			2.68	20
Magnesium,Dissolved	10.0	32.0	41.0	40.4	90.0	84.5	1	75.0-125			1.35	20
Manganese,Dissolved	1.00	0.0151	1.01	0.998	100	98.3	1	75.0-125			1.65	20
Potassium,Dissolved	10.0	2.16	11.3	11.4	91.6	92.5	1	75.0-125			0.814	20

L1721303-55 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1721303-55 04/04/24 13:27 • (MS) R4053814-4 04/04/24 13:30 • (MSD) R4053814-5 04/04/24 13:31

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 %
Selenium,Dissolved	1.00	0.0107	0.978	0.952	96.7	94.1	1	75.0-125			2.67	20
Sodium,Dissolved	10.0	17.5	27.4	27.4	99.0	98.7	1	75.0-125			0.111	20
Strontium,Dissolved	1.00	0.416	1.45	1.44	103	103	1	75.0-125			0.242	20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4054704-2 04/06/24 23:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	92.5			78.0-120

Laboratory Control Sample (LCS)

(LCS) R4054704-1 04/06/24 22:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5000	4930	98.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			96.3	78.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4053729-2 04/04/24 10:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		2.91	10.0
Ethane	U		4.07	13.0
Propane	U		5.48	18.6

L1721015-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1721015-01 04/04/24 10:43 • (DUP) R4053729-3 04/04/24 11:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Propane	U	U	1	0.000		20

L1721334-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1721334-01 04/04/24 11:38 • (DUP) R4053729-4 04/04/24 12:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Propane	U	U	1	0.000		20

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

(LCS) R4053729-1 04/04/24 10:14 • (LCSD) R4053729-5 04/04/24 12:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	66.4	64.5	97.9	95.1	85.0-115			2.90	20
Ethane	129	123	125	95.3	96.9	85.0-115			1.61	20
Propane	186	173	177	93.0	95.2	85.0-115			2.29	20

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4054757-2 04/07/24 14:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Methane	U		2.91	10.0
Ethane	U		4.07	13.0
Propane	U		5.48	18.6

L1721536-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1721536-04 04/07/24 14:37 • (DUP) R4054757-3 04/07/24 15:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Propane	U	U	1	0.000		20

L1722045-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1722045-06 04/07/24 15:19 • (DUP) R4054757-4 04/07/24 16:59

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	ug/l	ug/l		%		%
Methane	U	U	1	0.000		20
Ethane	U	U	1	0.000		20
Propane	U	U	1	0.000		20

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

(LCS) R4054757-1 04/07/24 14:27 • (LCSD) R4054757-7 04/07/24 17:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Methane	67.8	63.5	64.7	93.7	95.4	85.0-115			1.87	20
Ethane	129	124	123	96.1	95.3	85.0-115			0.810	20
Propane	186	175	174	94.1	93.5	85.0-115			0.573	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1722045-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1722045-01 04/07/24 14:55 • (MS) R4054757-5 04/07/24 17:02 • (MSD) R4054757-6 04/07/24 17:06

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methane	67.8	U	67.3	68.4	99.3	101	1	50.0-150			1.62	20
Ethane	129	U	125	123	96.9	95.3	1	50.0-150			1.61	20
Propane	186	U	175	173	94.1	93.0	1	50.0-150			1.15	20

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

Method Blank (MB)

(MB) R4054116-3 04/04/24 19:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	109			80.0-120
(S) 4-Bromofluorobenzene	103			77.0-126
(S) 1,2-Dichloroethane-d4	108			70.0-130

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

(LCS) R4054116-1 04/04/24 17:52 • (LCSD) R4054116-2 04/04/24 18:14

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	4.84	4.63	96.8	92.6	70.0-123			4.44	20
Toluene	5.00	4.59	4.83	91.8	96.6	79.0-120			5.10	20
Ethylbenzene	5.00	4.72	4.75	94.4	95.0	79.0-123			0.634	20
Xylenes, Total	15.0	13.7	14.3	91.3	95.3	79.0-123			4.29	20
(S) Toluene-d8				101	103	80.0-120				
(S) 4-Bromofluorobenzene				99.6	102	77.0-126				
(S) 1,2-Dichloroethane-d4				106	109	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4054929-3 04/05/24 11:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
<i>(S) Toluene-d8</i>	106			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	117			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	128			70.0-130

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

(LCS) R4054929-1 04/05/24 11:00 • (LCSD) R4054929-2 04/05/24 11:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.26	5.45	105	109	70.0-123			3.55	20
Toluene	5.00	4.38	4.85	87.6	97.0	79.0-120			10.2	20
Ethylbenzene	5.00	4.81	5.24	96.2	105	79.0-123			8.56	20
Xylenes, Total	15.0	14.0	15.8	93.3	105	79.0-123			12.1	20
<i>(S) Toluene-d8</i>				96.9	103	80.0-120				
<i>(S) 4-Bromofluorobenzene</i>				110	118	77.0-126				
<i>(S) 1,2-Dichloroethane-d4</i>				128	126	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4055419-1 04/09/24 00:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
C10-C28 Diesel Range	U		22.2	100
C28-C36 Motor Oil Range	U		11.8	100
(S) o-Terphenyl	77.0			52.0-156

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

(LCS) R4055419-2 04/09/24 01:04 • (LCSD) R4055419-3 04/09/24 01:25

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
C10-C28 Diesel Range	1500	1520	1580	101	105	50.0-150			3.87	20
(S) o-Terphenyl				88.5	89.5	52.0-156				

- 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

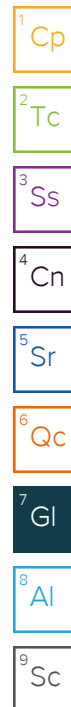
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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.
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
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.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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

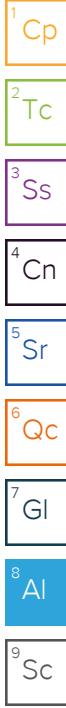
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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: <b>Terra Energy Partners</b> 743 Horizon Ct. Suite 330 Grand Junction, CO 81506		Billing Information: <b>Tammy Gose</b> 1058 County Road 215 Parachute, CO 81635		Pres Chk	Analysis / Container / Preservative L2										Chain of Custody Page ___ of ___	
--	--	--	--	-------------	---	--	--	--	--	--	--	--	--	--	----------------------------------	--



**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: <b>Kris Rowe &amp; Mike Gardner &amp; Bruce Smith</b>		Email To: mgardner@terraep.com;krowe@terraep.com;b	
Project Description:		City/State Collected:	Please Circle: PT MT CT ET

Phone: <b>970-242-0170</b>	Client Project #	Lab Project # <b>TERENGPCO-WWL</b>
Collected by (print): <b>AJK</b>	Site/Facility ID # <b>PA 22-25</b>	P.O. #
Collected by (signature): <i>Ala Khal</i>	<b>Rush?</b> (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote # <b>Rule 615</b> Date Results Needed
Immediately Packed on Ice N ___ Y <b>X</b>		No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	ALK, Bi/Ca/OH, pH, COND 250mlHDPE-NoPres	BART Microbiological	Br, Cl, F, NO2, NO3, SO4 125mlHDPE-NoPres	DRONMLVI 40mlAmb-HCl-BT	Diss Metals 250mlHDPE-NoPres	GRO 40mlAmb HCl	NO2NO3, PT 250mlHDPE-H2SO4	RSK175 40mlAmb HCl	TDS 1L-HDPE NoPres	V8260BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
Teter Well	G	GW		4-2-24	1430	X	X	X	X	X	X	X	X	X	X		-01
Naugle 264799	G	GW		4-2-24	1345	X	X	X	X	X	X	X	X	X	X		-02
Naugle 202848-	G	GW		4-2-24	1230	X	X	X	X	X	X	X	X	X	X		-03
Naugle 67992-F-	G	GW		4-2-24	1130	X	X	X	X	X	X	X	X	X	X		-04
Trip Blank															X		-05

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other	Remarks: Diss Metals - Ba, B, Ca, Fe, K, Mg, Mn, Na, Se, Sr <i>PLEASE MARK</i>	pH _____ Temp _____ Flow _____ Other _____	<b>Sample Receipt Checklist</b> 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 #	Trip Blank Received: <b>2</b> Yes/No HCL / MeOH TBR	Temp: <b>19.8</b> °C Bottles Received: <b>57</b>

Relinquished by: (Signature) <i>Ala Khal</i>	Date: 4-2-24	Time: 1300	Received by: (Signature)	Date: 04/3/24	Time: 09:00	Hold:	Condition: NCF / OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Hold:	Condition:
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date:	Time:	Hold:	Condition:

Company Name/Address:  
**Terra Energy Partners**  
 743 Horizon Ct. Suite 330  
 Grand Junction, CO 81506

Billing Information:  
**Tammy Gose**  
 1058 County Road 215  
 Parachute, CO 81635

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_

Report to:  
**Kris Rowe & Mike Gardner & Bruce Smith**

Email To:  
 mgardner@terraep.com;krowe@terraep.com;b

Project Description:

City/State  
 Collected:

Please Circle:  
 PT MT CT ET

Phone: **970-242-0170**

Client Project #

Lab Project #  
**TERENGPCO-WWL**

Collected by (print):  
**AJK**

Site/Facility ID #  
**RUF 13-19**

P.O. #

Collected by (signature):  
*AJK*

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote # **Rule 615**  
 Date Results Needed

Immediately Packed on Ice N \_\_\_ \$ \_\_\_

No. of  
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	ALK,Bi/Ca/OH,pH,COND 250mlHDPE-NoPres	BART Microbiological	Br,Cl,F,NO2,NO3,S04 125mlHDPE-NoPres	DRONMLVI 40mlAmb-HCl-BT	Diss Metals 250mlHDPE-NoPres	GRO 40mlAmb HCl	NO2NO3,PT 250mlHDPE-H2SO4	RSK175 40mlAmb HCl	TDS 1L-HDPE NoPres	V8260BTEX 40mlAmb-HCl
		GW		<del>4-2-24</del>	<del>1230</del>	X	X	X	X	X	X	X	X	X	X
Nangle 202848	G	GW		4-2-24	1230	X	X	X	X	X	X	X	X	X	X
Nangle 67992-F	G	GW		4-2-24	1130										
Trip Blank															

**Pace**  
 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 # **11721530**  
**1072**

Acctnum: **TERENGPCO**  
 Template: **T246585**  
 Prelogin: **P1054250**  
 PM: **824 - Chris Ward**  
 PB:

Shipped Via: **FedEX Ground**  
 Remarks Sample # (lab only)

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks: **Diss Metals - Ba,B,Ca,Fe,K,Mg,Mn,Na,Se,Sr**

PH-10BDH5021 TRC-2352362  
 CR6-20221V

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 #

Relinquished by: (Signature)  
*[Signature]*

Date: **4-2-24**  
 Time: **1700**

Received by: (Signature)  
*[Signature]*

Trip Blank Received: Yes/No  
 2  HCl/MeoH  
 TBR

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Received by: (Signature)

Temp: **8+0.1=2.9** °C  
 Bottles Received: **52**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

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

Date: **04/3/24** Time: **9:00**

Hold: \_\_\_\_\_ Condition: **NCF / OK**