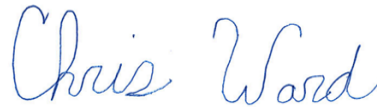


April 05, 2019

Entrada Consulting Group

Sample Delivery Group: L1083485
Samples Received: 03/28/2019
Project Number:
Description: Rock Springs
Site: ROCK SPRINGS
Report To: Robert Stockton
240 Mesa Avenue
Grand Junction, CO 81501

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 National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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Qc: Quality Control Summary	6	⁴ Cn
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Al: Accreditations & Locations	8	⁶ Qc
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		⁸ Al
		⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



RS 9 L1083485-01 GW

Collected by
Robert Stockton

Collected date/time
03/27/19 10:50

Received date/time
03/28/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1259533	1	04/03/19 00:50	04/03/19 00:50	DWR	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



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



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.131		0.000500	1	04/03/2019 00:50	WG1259533
Toluene	ND		0.00100	1	04/03/2019 00:50	WG1259533
Ethylbenzene	0.0399		0.000500	1	04/03/2019 00:50	WG1259533
Total Xylene	0.290		0.00150	1	04/03/2019 00:50	WG1259533
TPH (GC/FID) Low Fraction	2.21		0.100	1	04/03/2019 00:50	WG1259533
(S) a,a,a-Trifluorotoluene(FID)	86.3		78.0-120		04/03/2019 00:50	WG1259533
(S) a,a,a-Trifluorotoluene(PID)	95.9		79.0-125		04/03/2019 00:50	WG1259533

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Method Blank (MB)

(MB) R3398493-5 04/03/19 00:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120
(S) a,a,a-Trifluorotoluene(PID)	98.5			79.0-125

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

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

(LCS) R3398493-1 04/02/19 22:27 • (LCSD) R3398493-2 04/02/19 22:47

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 %
TPH (GC/FID) Low Fraction	5.50	5.53	5.73	101	104	72.0-127			3.66	20
(S) a,a,a-Trifluorotoluene(FID)				96.9	97.8	78.0-120				
(S) a,a,a-Trifluorotoluene(PID)				105	104	79.0-125				

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

(LCS) R3398493-3 04/02/19 23:08 • (LCSD) R3398493-4 04/02/19 23:28

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	0.0500	0.0489	0.0436	97.7	87.3	77.0-122			11.3	20
Toluene	0.0500	0.0471	0.0420	94.2	84.1	80.0-121			11.3	20
Ethylbenzene	0.0500	0.0515	0.0465	103	93.0	80.0-123			10.2	20
Total Xylene	0.150	0.152	0.138	101	92.1	47.0-154			9.45	20
(S) a,a,a-Trifluorotoluene(FID)				104	105	78.0-120				
(S) a,a,a-Trifluorotoluene(PID)				98.4	98.4	79.0-125				



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.

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.
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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* 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 National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
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}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

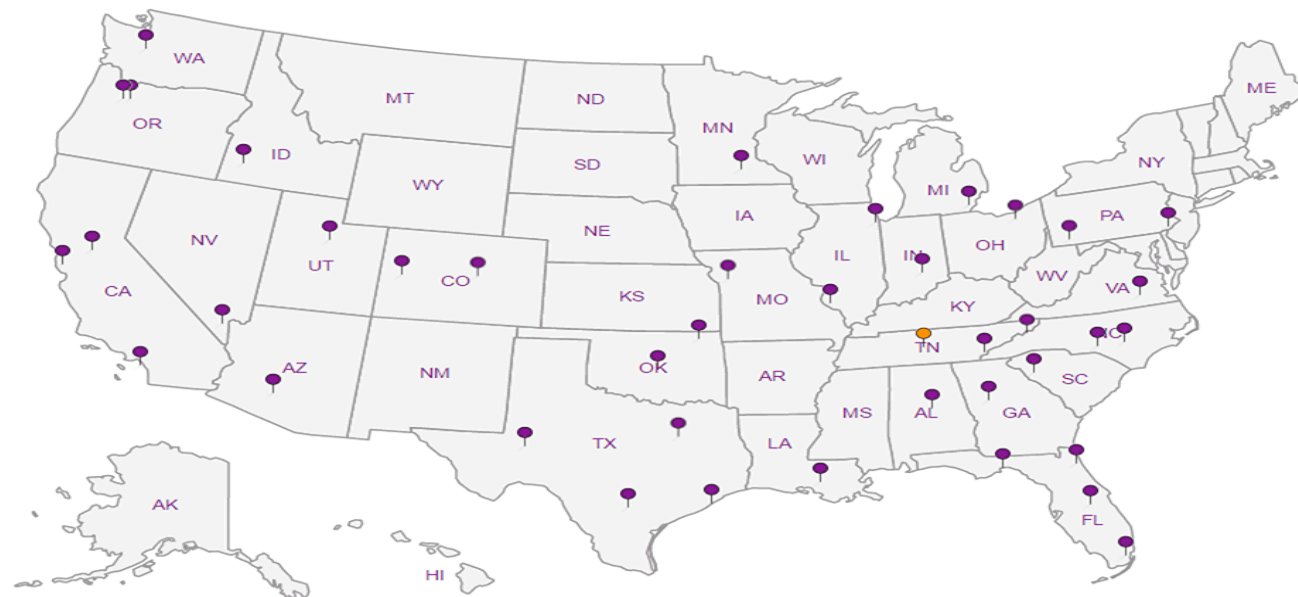
Third Party Federal Accreditations

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


Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Pace Analytical National Center for Testing & Innovation

Cooler Receipt Form

Client: <u>ENTCONGUJO</u>	SDG#:	<u>L1083485</u>	
Cooler Received/Opened On: <u>3/28</u> / 19	Temperature:	<u>1.7</u>	
Received By: Alex Parsons			
Signature: 			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?		/	
Bottles arrive intact?			/
Correct bottles used?		/	
Sufficient volume sent?			/
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			



Login #:L1083485	Client:ENTCONGICO	Date:03/28/19	Evaluated by:Myra "Katie" Ingram
------------------	-------------------	---------------	----------------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	
Parameter(s) past holding time	Login Clarification Needed	If Broken Container:
Temperature not in range	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
pH not in range.	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
X Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments:

One of the two vials received broken.

No analysis logged due to limited sample volume

Client informed by:	Call	X	Email	Voice Mail	Date: 3/29/19	Time: 0826
TSR Initials: CMW	Client Contact: Robert Stockton					

Login Instructions:

Please log for BTEXGRO by 8021. Make sure to comment the limited sample volume.

June 28, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Entrada Consulting Group

Sample Delivery Group: L111268
Samples Received: 06/20/2019
Project Number: 017-006
Description: 017-006
Site: ROCKSPRINGS
Report To: Robert Stockton
240 Mesa Avenue
Grand Junction, CO 81501

Entire Report Reviewed By:



Olivia Studebaker
Project Manager

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Gl: Glossary of Terms	18
Al: Accreditations & Locations	19
Sc: Sample Chain of Custody	20



SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



RS-2 L111268-01 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 11:50	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/25/19 23:43	06/25/19 23:43	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1302482	1	06/28/19 05:19	06/28/19 05:19	JHH	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

RS-3 L111268-02 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 11:25	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 00:07	06/26/19 00:07	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1302482	1	06/28/19 05:43	06/28/19 05:43	JHH	Mt. Juliet, TN

⁴ Cn

⁵ Sr

⁶ Qc

RS-4 L111268-03 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 12:30	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 00:30	06/26/19 00:30	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1302482	1	06/28/19 06:06	06/28/19 06:06	JHH	Mt. Juliet, TN

⁷ Gl

⁸ Al

⁹ Sc

RS-5 L111268-04 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 12:50	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 00:54	06/26/19 00:54	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1302482	1	06/28/19 06:30	06/28/19 06:30	JHH	Mt. Juliet, TN

RS-6 L111268-05 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 10:50	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 01:37	06/26/19 01:37	ACG	Mt. Juliet, TN

RS-7 L111268-06 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 10:10	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 02:01	06/26/19 02:01	ACG	Mt. Juliet, TN

DS L111268-07 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 13:10	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 02:24	06/26/19 02:24	ACG	Mt. Juliet, TN

NS L111268-08 GW

				Collected by Robert Stockton	Collected date/time 06/19/19 13:40	Received date/time 06/20/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 02:48	06/26/19 02:48	ACG	Mt. Juliet, TN

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SS L111268-09 GW

Collected by
Robert Stockton

Collected date/time
06/19/19 14:05

Received date/time
06/20/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 03:12	06/26/19 03:12	ACG	Mt. Juliet, TN

POND L111268-10 GW

Collected by
Robert Stockton

Collected date/time
06/19/19 13:25

Received date/time
06/20/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1301925	1	06/26/19 03:35	06/26/19 03:35	ACG	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



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.

Olivia Studebaker
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/25/2019 23:43	WG1301925
Toluene	ND		0.00100	1	06/28/2019 05:19	WG1302482
Ethylbenzene	ND		0.000500	1	06/28/2019 05:19	WG1302482
Total Xylene	ND		0.00150	1	06/28/2019 05:19	WG1302482
TPH (GC/FID) Low Fraction	0.105	<u>B</u>	0.100	1	06/25/2019 23:43	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.1		78.0-120		06/25/2019 23:43	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.5		78.0-120		06/28/2019 05:19	WG1302482
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		06/25/2019 23:43	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	103		79.0-125		06/28/2019 05:19	WG1302482

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 00:07	WG1301925
Toluene	ND		0.00100	1	06/28/2019 05:43	WG1302482
Ethylbenzene	ND		0.000500	1	06/26/2019 00:07	WG1301925
Total Xylene	ND		0.00150	1	06/28/2019 05:43	WG1302482
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 00:07	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.2		78.0-120		06/26/2019 00:07	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.3		78.0-120		06/28/2019 05:43	WG1302482
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		06/26/2019 00:07	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	103		79.0-125		06/28/2019 05:43	WG1302482

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 00:30	WG1301925
Toluene	ND		0.00100	1	06/28/2019 06:06	WG1302482
Ethylbenzene	ND		0.000500	1	06/26/2019 00:30	WG1301925
Total Xylene	ND		0.00150	1	06/28/2019 06:06	WG1302482
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 00:30	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.3		78.0-120		06/26/2019 00:30	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.5		78.0-120		06/28/2019 06:06	WG1302482
(S) a,a,a-Trifluorotoluene(PID)	103		79.0-125		06/26/2019 00:30	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	103		79.0-125		06/28/2019 06:06	WG1302482

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 00:54	WG1301925
Toluene	ND		0.00100	1	06/28/2019 06:30	WG1302482
Ethylbenzene	ND		0.000500	1	06/26/2019 00:54	WG1301925
Total Xylene	ND		0.00150	1	06/28/2019 06:30	WG1302482
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 00:54	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.2		78.0-120		06/26/2019 00:54	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.5		78.0-120		06/28/2019 06:30	WG1302482
(S) a,a,a-Trifluorotoluene(PID)	101		79.0-125		06/26/2019 00:54	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	103		79.0-125		06/28/2019 06:30	WG1302482

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 01:37	WG1301925
Toluene	0.00154		0.00100	1	06/26/2019 01:37	WG1301925
Ethylbenzene	ND		0.000500	1	06/26/2019 01:37	WG1301925
Total Xylene	0.00219		0.00150	1	06/26/2019 01:37	WG1301925
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 01:37	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.4		78.0-120		06/26/2019 01:37	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		06/26/2019 01:37	WG1301925

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 02:01	WG1301925
Toluene	ND		0.00100	1	06/26/2019 02:01	WG1301925
Ethylbenzene	ND		0.000500	1	06/26/2019 02:01	WG1301925
Total Xylene	ND		0.00150	1	06/26/2019 02:01	WG1301925
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 02:01	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.2		78.0-120		06/26/2019 02:01	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	103		79.0-125		06/26/2019 02:01	WG1301925

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 02:24	WG1301925
Toluene	ND		0.00100	1	06/26/2019 02:24	WG1301925
Ethylbenzene	ND		0.000500	1	06/26/2019 02:24	WG1301925
Total Xylene	ND		0.00150	1	06/26/2019 02:24	WG1301925
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 02:24	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.3		78.0-120		06/26/2019 02:24	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		06/26/2019 02:24	WG1301925

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Collected date/time: 06/19/19 13:40

L1111268

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 02:48	WG1301925
Toluene	ND		0.00100	1	06/26/2019 02:48	WG1301925
Ethylbenzene	ND		0.000500	1	06/26/2019 02:48	WG1301925
Total Xylene	ND		0.00150	1	06/26/2019 02:48	WG1301925
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 02:48	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.3		78.0-120		06/26/2019 02:48	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		06/26/2019 02:48	WG1301925

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 03:12	WG1301925
Toluene	ND		0.00100	1	06/26/2019 03:12	WG1301925
Ethylbenzene	ND		0.000500	1	06/26/2019 03:12	WG1301925
Total Xylene	ND		0.00150	1	06/26/2019 03:12	WG1301925
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 03:12	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	97.6		78.0-120		06/26/2019 03:12	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		06/26/2019 03:12	WG1301925

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	06/26/2019 03:35	WG1301925
Toluene	ND		0.00100	1	06/26/2019 03:35	WG1301925
Ethylbenzene	ND		0.000500	1	06/26/2019 03:35	WG1301925
Total Xylene	ND		0.00150	1	06/26/2019 03:35	WG1301925
TPH (GC/FID) Low Fraction	ND		0.100	1	06/26/2019 03:35	WG1301925
(S) a,a,a-Trifluorotoluene(FID)	98.3		78.0-120		06/26/2019 03:35	WG1301925
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		06/26/2019 03:35	WG1301925

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

(MB) R3425038-3 06/25/19 19:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	0.000181	└	0.000160	0.000500
Total Xylene	U		0.000510	0.00150
TPH (GC/FID) Low Fraction	0.0581	└	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	98.4			78.0-120
(S) a,a,a-Trifluorotoluene(PID)	102			79.0-125

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3425038-1 06/25/19 18:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0522	104	77.0-122	
Toluene	0.0500	0.0532	106	80.0-121	
Ethylbenzene	0.0500	0.0534	107	80.0-123	
Total Xylene	0.150	0.156	104	47.0-154	
(S) a,a,a-Trifluorotoluene(FID)			98.2	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			102	79.0-125	

Laboratory Control Sample (LCS)

(LCS) R3425038-2 06/25/19 18:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.81	106	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			105	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			112	79.0-125	

Method Blank (MB)

(MB) R3425803-3 06/27/19 12:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(FID)	97.8			78.0-120
(S) a,a,a-Trifluorotoluene(PID)	103			79.0-125

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Laboratory Control Sample (LCS)

(LCS) R3425803-1 06/27/19 11:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Toluene	0.0500	0.0524	105	80.0-121	
Ethylbenzene	0.0500	0.0516	103	80.0-123	
Total Xylene	0.150	0.153	102	47.0-154	
(S) a,a,a-Trifluorotoluene(FID)			98.2	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			103	79.0-125	

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



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.

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.
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.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* 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 National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
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}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

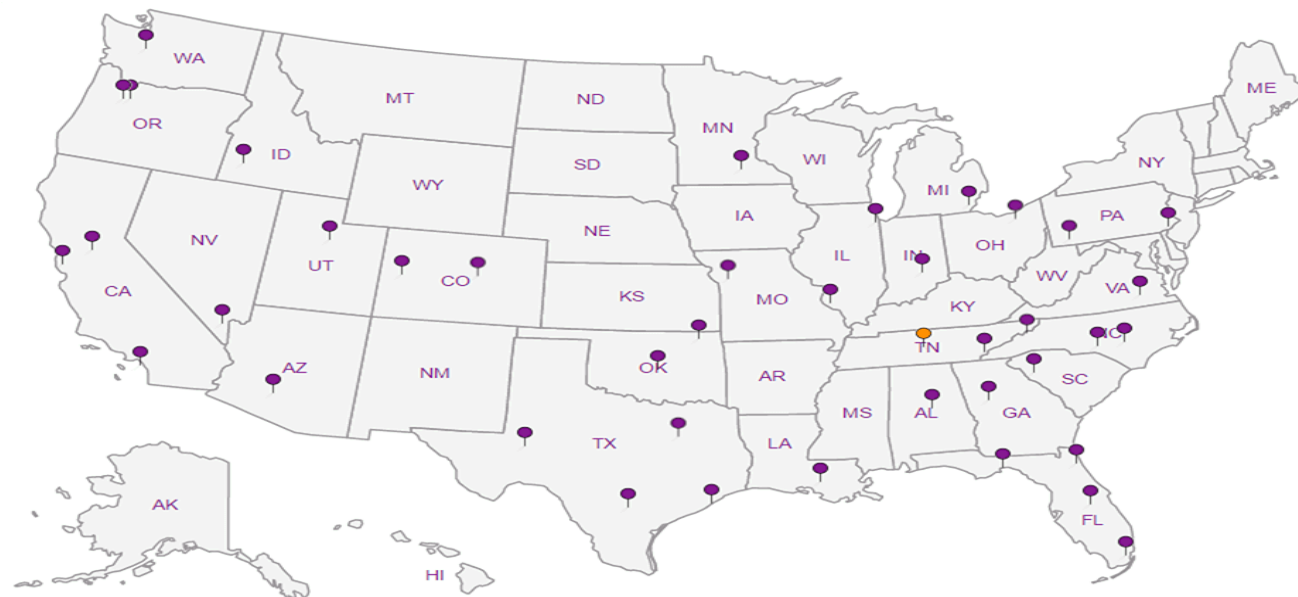
Third Party Federal Accreditations

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Company Name/Address: Entrada Consulting Group 330 Grand Avenue, Unit C Grand Junction, CO 81501				Billing Information: 				Analysis / Container / Preservative <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Report to: Robert Stockton </div> <div style="width: 45%;"> Email To: rstockton@entradainc.com </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Project Description: 017-006 </div> <div style="width: 45%;"> City/State Collected: Cascade Crk. </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Phone: (970) 640-0568 Fax: </div> <div style="width: 45%;"> Client Project # 017-006 </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Collected by (print): Robert Stockton </div> <div style="width: 45%;"> Site/Facility ID # Rock Springs </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Collected by (signature): </div> <div style="width: 45%;"> P.O. # 017-006 </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/> </div> <div style="width: 45%;"> Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day200% <input type="checkbox"/> Next Day100% <input type="checkbox"/> Two Day50% <input type="checkbox"/> Three Day25% </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes </div> <div style="width: 45%;"> No. of Cntrs </div> </div>								Chain of Custody Page 1 of 1 L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 L # L1111268 C052 Acctnum: Template: Prelogin: TSR: Cooler: Shipped Via: <div style="display: flex; justify-content: space-between;"> Rem./Contaminant Sample # (lab only) </div>			
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	BTEX / GRO												
RS-2	Grab	GW		6/19/19	1150	4	X												01
RS-3	Grab	GW		6/19/19	1125	4	X												02
RS-4	Grab	GW		6/19/19	1230	4	X												03
RS-5	Grab	GW		6/19/19	1250	4	X												04
RS-6	Grab	GW		6/19/19	1050	4	X												05
RS-7	Grab	GW		6/19/19	1010	4	X												06
DS	Grab	GW		6/19/19	1310	4	X												07
NS	Grab	GW		6/19/19	1340	4	X												08
SS	Grab	GW		6/19/19	1405	4	X												09
Pond	Grab	GW		6/19/19	1325	4	X												10

* Matrix; **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other _____

pH _____ Temp _____

Flow _____ Other _____

Remarks:


Relinquished by: (Signature)	Date: 6/19/19	Time: 1700	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____	Condition: (lab use only)
Relinquished by: (Signature)	Date: 6/19/19	Time: 1720	Received by: (Signature)	Temp: 45.1 = 4.952 40 Bottles Received: 40	COC Seal Intact: <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/20/19 Time: 9:00	

pH Checked: _____ NCF: _____

Fecl 4510 1663 2632

Pace Analytical National Center for Testing & Innovation

Cooler Receipt Form

Client:	ENTONGJCO	SDG#:	L1111268	
Cooler Received/Opened On: 6/16 /19		Temperature:	4.9	
Received By: Adam Burns				
Signature: 				
Receipt Check List	NP	Yes	No	
COC Seal Present / Intact?	✓			
COC Signed / Accurate?		✓		
Bottles arrive intact?		✓		
Correct bottles used?		✓		
Sufficient volume sent?		✓		
If Applicable				
VOA Zero headspace?		✓		
Preservation Correct / Checked?				

October 04, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laramie Energy - Grand Junction, CO

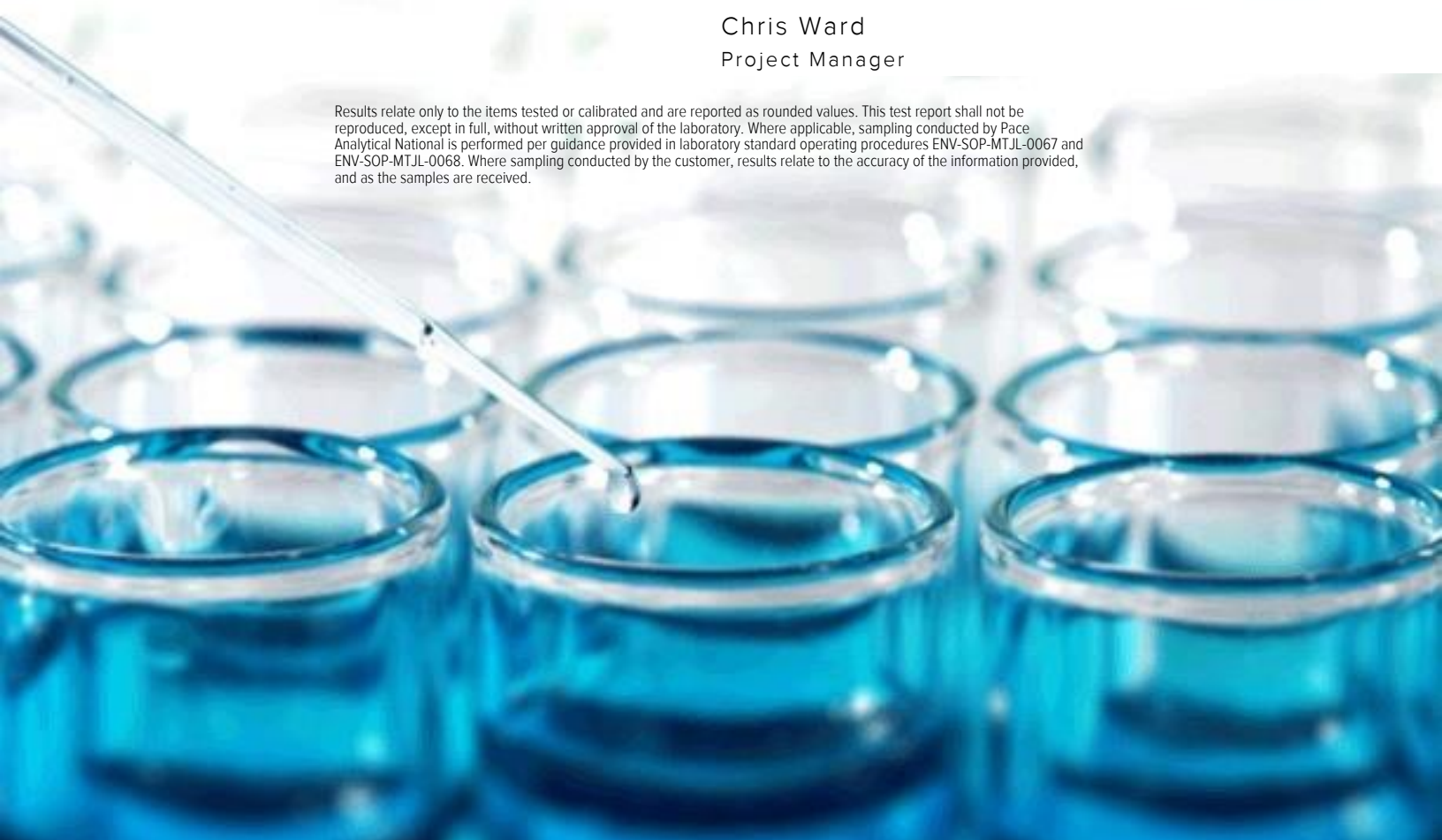
Sample Delivery Group: L1143514
Samples Received: 09/26/2019
Project Number: 017-006
Description: 017-006
Site: ROCK SPRINGS
Report To: Robert Stockton
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Entire Report Reviewed By:

Chris Ward

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.





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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



RS-2 L1143514-01 GW

Collected by
Robert Stockton

Collected date/time
09/24/19 13:15

Received date/time
09/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1355526	1	10/02/19 08:45	10/02/19 08:45	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1354703	1	09/30/19 23:02	09/30/19 23:02	JCP	Mt. Juliet, TN

¹ Cp² Tc³ Ss

RS-4 L1143514-02 GW

Collected by
Robert Stockton

Collected date/time
09/24/19 12:45

Received date/time
09/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1355992	1	10/02/19 20:01	10/02/19 20:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1354703	5	09/30/19 23:22	09/30/19 23:22	JCP	Mt. Juliet, TN

⁴ Cn⁵ Sr⁶ Qc

RS-5 L1143514-03 GW

Collected by
Robert Stockton

Collected date/time
09/24/19 11:31

Received date/time
09/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1355846	1	10/02/19 16:59	10/02/19 16:59	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1354703	2	09/30/19 23:43	09/30/19 23:43	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1355993	100	10/02/19 23:13	10/02/19 23:13	JHH	Mt. Juliet, TN

⁷ Gl⁸ Al⁹ Sc

RS-7 L1143514-04 GW

Collected by
Robert Stockton

Collected date/time
09/24/19 10:35

Received date/time
09/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1355846	1	10/02/19 17:23	10/02/19 17:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1354703	1	10/01/19 00:03	10/01/19 00:03	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1355993	1	10/02/19 23:33	10/02/19 23:33	JHH	Mt. Juliet, TN

DS L1143514-05 GW

Collected by
Robert Stockton

Collected date/time
09/24/19 11:55

Received date/time
09/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1355846	1	10/02/19 17:47	10/02/19 17:47	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1354703	1	10/01/19 00:24	10/01/19 00:24	JCP	Mt. Juliet, TN

SS L1143514-06 GW

Collected by
Robert Stockton

Collected date/time
09/24/19 12:25

Received date/time
09/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1355846	1	10/02/19 18:11	10/02/19 18:11	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1354703	1	10/01/19 00:44	10/01/19 00:44	JCP	Mt. Juliet, TN

POND L1143514-07 GW

Collected by
Robert Stockton

Collected date/time
09/24/19 12:10

Received date/time
09/26/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1355846	1	10/02/19 18:35	10/02/19 18:35	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1354703	1	10/01/19 01:05	10/01/19 01:05	JCP	Mt. Juliet, TN

ACCOUNT:

Laramie Energy - Grand Junction, CO

PROJECT:

017-006

SDG:

L1143514

DATE/TIME:

10/04/19 10:03

PAGE:

3 of 20



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

Sample Delivery Group (SDG) Narrative

VOC pH outside of method requirement.

Lab Sample ID

[L1143514-03](#)

Project Sample ID

[RS-5](#)

Method

8015D/GRO

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2019 08:45	WG1355526
(S) a,a,a-Trifluorotoluene(FID)	110		78.0-120		10/02/2019 08:45	WG1355526

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	09/30/2019 23:02	WG1354703
Toluene	ND		0.00100	1	09/30/2019 23:02	WG1354703
Ethylbenzene	ND		0.00100	1	09/30/2019 23:02	WG1354703
Total Xylenes	ND		0.00300	1	09/30/2019 23:02	WG1354703
(S) Toluene-d8	103		80.0-120		09/30/2019 23:02	WG1354703
(S) 4-Bromofluorobenzene	98.3		77.0-126		09/30/2019 23:02	WG1354703
(S) 1,2-Dichloroethane-d4	94.1		70.0-130		09/30/2019 23:02	WG1354703

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2019 20:01	WG1355992
(S) a,a,a-Trifluorotoluene(FID)	93.3		78.0-120		10/02/2019 20:01	WG1355992

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00500	5	09/30/2019 23:22	WG1354703
Toluene	ND		0.00500	5	09/30/2019 23:22	WG1354703
Ethylbenzene	ND		0.00500	5	09/30/2019 23:22	WG1354703
Total Xylenes	ND		0.0150	5	09/30/2019 23:22	WG1354703
(S) Toluene-d8	103		80.0-120		09/30/2019 23:22	WG1354703
(S) 4-Bromofluorobenzene	96.9		77.0-126		09/30/2019 23:22	WG1354703
(S) 1,2-Dichloroethane-d4	93.0		70.0-130		09/30/2019 23:22	WG1354703

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.168	B	0.100	1	10/02/2019 16:59	WG1355846
(S) a,a,a-Trifluorotoluene(FID)	111		78.0-120		10/02/2019 16:59	WG1355846

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00200	2	09/30/2019 23:43	WG1354703
Toluene	4.13		0.100	100	10/02/2019 23:13	WG1355993
Ethylbenzene	ND		0.00200	2	09/30/2019 23:43	WG1354703
Total Xylenes	ND		0.00600	2	09/30/2019 23:43	WG1354703
(S) Toluene-d8	103		80.0-120		09/30/2019 23:43	WG1354703
(S) Toluene-d8	98.1		80.0-120		10/02/2019 23:13	WG1355993
(S) 4-Bromofluorobenzene	99.4		77.0-126		09/30/2019 23:43	WG1354703
(S) 4-Bromofluorobenzene	89.9		77.0-126		10/02/2019 23:13	WG1355993
(S) 1,2-Dichloroethane-d4	91.9		70.0-130		09/30/2019 23:43	WG1354703
(S) 1,2-Dichloroethane-d4	102		70.0-130		10/02/2019 23:13	WG1355993

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2019 17:23	WG1355846
(S) a,a,a-Trifluorotoluene(FID)	109		78.0-120		10/02/2019 17:23	WG1355846

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/01/2019 00:03	WG1354703
Toluene	ND		0.00100	1	10/02/2019 23:33	WG1355993
Ethylbenzene	ND		0.00100	1	10/01/2019 00:03	WG1354703
Total Xylenes	ND		0.00300	1	10/01/2019 00:03	WG1354703
(S) Toluene-d8	104		80.0-120		10/01/2019 00:03	WG1354703
(S) Toluene-d8	106		80.0-120		10/02/2019 23:33	WG1355993
(S) 4-Bromofluorobenzene	99.3		77.0-126		10/01/2019 00:03	WG1354703
(S) 4-Bromofluorobenzene	103		77.0-126		10/02/2019 23:33	WG1355993
(S) 1,2-Dichloroethane-d4	91.3		70.0-130		10/01/2019 00:03	WG1354703
(S) 1,2-Dichloroethane-d4	103		70.0-130		10/02/2019 23:33	WG1355993

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2019 17:47	WG1355846
(S) a,a,a-Trifluorotoluene(FID)	110		78.0-120		10/02/2019 17:47	WG1355846

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/01/2019 00:24	WG1354703
Toluene	ND		0.00100	1	10/01/2019 00:24	WG1354703
Ethylbenzene	ND		0.00100	1	10/01/2019 00:24	WG1354703
Total Xylenes	ND		0.00300	1	10/01/2019 00:24	WG1354703
(S) Toluene-d8	104		80.0-120		10/01/2019 00:24	WG1354703
(S) 4-Bromofluorobenzene	98.3		77.0-126		10/01/2019 00:24	WG1354703
(S) 1,2-Dichloroethane-d4	91.3		70.0-130		10/01/2019 00:24	WG1354703

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2019 18:11	WG1355846
(S) a,a,a-Trifluorotoluene(FID)	109		78.0-120		10/02/2019 18:11	WG1355846

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00138		0.00100	1	10/01/2019 00:44	WG1354703
Toluene	ND		0.00100	1	10/01/2019 00:44	WG1354703
Ethylbenzene	ND		0.00100	1	10/01/2019 00:44	WG1354703
Total Xylenes	ND		0.00300	1	10/01/2019 00:44	WG1354703
(S) Toluene-d8	106		80.0-120		10/01/2019 00:44	WG1354703
(S) 4-Bromofluorobenzene	97.8		77.0-126		10/01/2019 00:44	WG1354703
(S) 1,2-Dichloroethane-d4	89.5		70.0-130		10/01/2019 00:44	WG1354703

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.100	1	10/02/2019 18:35	WG1355846
(S) a,a,a-Trifluorotoluene(FID)	110		78.0-120		10/02/2019 18:35	WG1355846

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	10/01/2019 01:05	WG1354703
Toluene	ND		0.00100	1	10/01/2019 01:05	WG1354703
Ethylbenzene	ND		0.00100	1	10/01/2019 01:05	WG1354703
Total Xylenes	ND		0.00300	1	10/01/2019 01:05	WG1354703
(S) Toluene-d8	103		80.0-120		10/01/2019 01:05	WG1354703
(S) 4-Bromofluorobenzene	97.9		77.0-126		10/01/2019 01:05	WG1354703
(S) 1,2-Dichloroethane-d4	90.5		70.0-130		10/01/2019 01:05	WG1354703

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3456738-1 10/02/19 02:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0352	⬇	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	109			78.0-120

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS)

(LCS) R3456738-2 10/02/19 09:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.56	82.9	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			97.2	78.0-120	

Method Blank (MB)

(MB) R3457211-3 10/02/19 13:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0476	⬇	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	110			78.0-120

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

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

(LCS) R3457211-1 10/02/19 12:23 • (LCSD) R3457211-2 10/02/19 12:47

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 %
TPH (GC/FID) Low Fraction	5.50	4.88	5.11	88.7	92.9	72.0-127			4.60	20
(S) a,a,a-Trifluorotoluene(FID)				93.1	93.1	78.0-120				

L1143588-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1143588-01 10/02/19 22:10 • (MS) R3457211-4 10/02/19 22:58 • (MSD) R3457211-5 10/02/19 23:22

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 %
TPH (GC/FID) Low Fraction	5.50	1.76	6.22	5.12	81.1	61.1	1	10.0-160			19.4	22
(S) a,a,a-Trifluorotoluene(FID)					95.0	93.6		78.0-120				

Method Blank (MB)

(MB) R3456989-2 10/02/19 12:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	93.3			78.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3456989-1 10/02/19 11:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.64	103	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			106	78.0-120	



Method Blank (MB)

(MB) R3456981-2 09/30/19 21:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Toluene	U		0.000412	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	105			80.0-120
(S) 4-Bromofluorobenzene	99.4			77.0-126
(S) 1,2-Dichloroethane-d4	92.0			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Laboratory Control Sample (LCS)

(LCS) R3456981-1 09/30/19 20:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0221	88.4	70.0-123	
Ethylbenzene	0.0250	0.0231	92.4	79.0-123	
Toluene	0.0250	0.0225	90.0	79.0-120	
Xylenes, Total	0.0750	0.0690	92.0	79.0-123	
(S) Toluene-d8			101	80.0-120	
(S) 4-Bromofluorobenzene			102	77.0-126	
(S) 1,2-Dichloroethane-d4			87.3	70.0-130	

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3457150-3 10/02/19 20:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Toluene	U		0.000412	0.00100
(S) Toluene-d8	103			80.0-120
(S) 4-Bromofluorobenzene	99.9			77.0-126
(S) 1,2-Dichloroethane-d4	99.3			70.0-130

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

(LCS) R3457150-1 10/02/19 19:24 • (LCSD) R3457150-2 10/02/19 19:45

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 %
Toluene	0.0250	0.0251	0.0234	100	93.6	79.0-120			7.01	20
(S) Toluene-d8				100	94.1	80.0-120				
(S) 4-Bromofluorobenzene				91.3	86.0	77.0-126				
(S) 1,2-Dichloroethane-d4				105	107	70.0-130				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



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.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* 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 National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
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}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

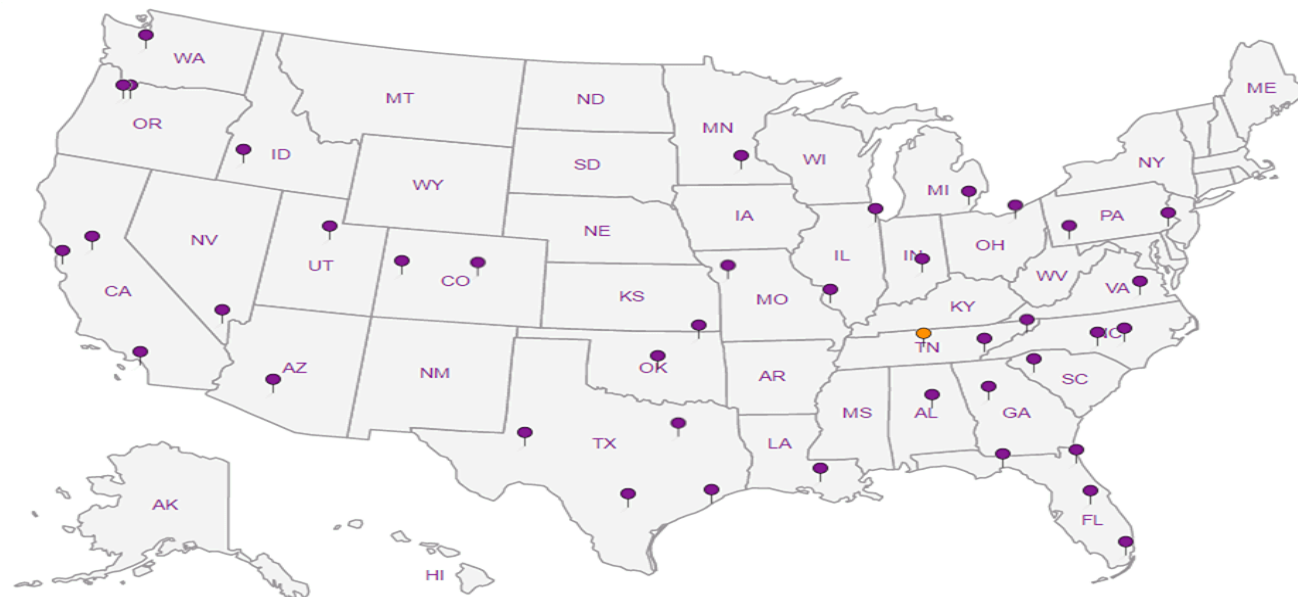
Third Party Federal Accreditations

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Company Name/Address:

Entrada Consulting Group330 Grand Avenue, Unit C
Grand Junction, CO 81501

Billing Information:

OXYGJCO

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859L# **L1143914****C222**Acctnum: **OXYGJCO**

Template:

Prelogin:

TSR:

Cooler:

Shipped Via:

Rem./Contaminant Sample # (lab only)

-01
02
03
04
05
06
07

Report to:

Robert Stockton

Email To:

rstockton@entradainc.com

Project

017-006

Description:

City/State

Collected: **Cascade Crk.**Phone: **(970) 640-0568**

Client Project #

017-006

Fax:

Lab Project #

Collected by (print):

Robert Stockton

Site/Facility ID #

Rock Springs

P.O. #

017-006

Collected by (signature):

Rush? (Lab MUST Be Notified)

___ Same Day200%

___ Next Day100%

___ Two Day50%

___ Three Day25%

Date Results Needed

Email? ___ No ☒ YesFAX? ☒ No ___ YesNo.
of
Cntrs

Immediately

Packed on Ice N ___ Y ☒

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

RS-2

Grab

GW

9/24/19

1315

4

BTEX / GRO

RS-4

Grab

GW

9/24/19

1245

4

RS-5

Grab

GW

9/24/19

1131

4

RS-7

Grab

GW

9/24/19

1035

4

DS

Grab

GW

9/24/19

1155

4

SS

Grab

GW

9/24/19

1225

4

Pond

Grab

GW

9/24/19

1210

4

Grab

GW

Grab

GW

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other _____

Remarks:

pH _____ Temp _____

RAD SCREEN: <0.5 mR/hr

Flow _____ Other _____

Relinquished by: (Signature)

Date:

7/25/19

Time:

1500

Received by: (Signature)

Relinquished by: (Signature)

Date:

7/25/19

Time:

1700

Received by: (Signature)

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Samples returned via: ☐ UPS☐ FedEx ☐ Courier ☐ _____Temp: **73.2°C** Bottles Received:**013-2201 28**Date: **9/26/19** Time: **8:45**

Hold #

Condition: (lab use only)

COC Seal Intact: ___ Y ___ N **NA**

pH Checked:

NCF:

Fedex 4510 1663 4245

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	DX46300	L1143514
Cooler Received/Opened On:	9/26/19	Temperature: 0-1
Received By:	Adam Burns	
Signature:	<i>Adam Burns</i>	

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	/		
COC Signed / Accurate?		/	
Bottles arrive intact?		/	
Correct bottles used?		/	
Sufficient volume sent?		/	
If Applicable			
VOA Zero headspace?		/	
Preservation Correct / Checked?			

December 26, 2019

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Entrada Consulting Group

Sample Delivery Group: L1172218
Samples Received: 12/18/2019
Project Number: 017-006
Description: 017-006 Rock Springs
Site: ROCK SPRINGS
Report To: Robert Stockton
240 Mesa Avenue
Grand Junction, CO 81501

Entire Report Reviewed By:



Jared Starkey
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.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



RS2 L1172218-01 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 15:30	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 13:45	12/22/19 13:45	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1401520	1	12/23/19 16:55	12/23/19 16:55	BMB	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

RS3 L1172218-02 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 15:00	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 14:05	12/22/19 14:05	ACG	Mt. Juliet, TN

⁴ Cn

⁵ Sr

RS4 L1172218-03 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 14:10	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 14:26	12/22/19 14:26	ACG	Mt. Juliet, TN

⁶ Qc

⁷ Gl

RS5 L1172218-04 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 14:45	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 14:46	12/22/19 14:46	ACG	Mt. Juliet, TN

⁸ Al

⁹ Sc

RS7 L1172218-05 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 14:00	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 15:06	12/22/19 15:06	ACG	Mt. Juliet, TN

SS L1172218-06 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 15:45	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 15:27	12/22/19 15:27	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1401520	1	12/23/19 17:17	12/23/19 17:17	BMB	Mt. Juliet, TN

POND L1172218-07 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 15:55	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 15:47	12/22/19 15:47	ACG	Mt. Juliet, TN

DS L1172218-08 GW

				Collected by Robert Stockton	Collected date/time 12/15/19 16:10	Received date/time 12/18/19 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015/8021	WG1400122	1	12/22/19 16:07	12/22/19 16:07	ACG	Mt. Juliet, TN



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.

Jared Starkey
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	12/23/2019 16:55	WG1401520
Toluene	ND		0.00100	1	12/22/2019 13:45	WG1400122
Ethylbenzene	ND		0.000500	1	12/22/2019 13:45	WG1400122
Total Xylene	ND		0.00150	1	12/22/2019 13:45	WG1400122
TPH (GC/FID) Low Fraction	ND		0.100	1	12/22/2019 13:45	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	102		78.0-120		12/22/2019 13:45	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	105		78.0-120		12/23/2019 16:55	WG1401520
(S) a,a,a-Trifluorotoluene(PID)	100		79.0-125		12/22/2019 13:45	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	102		79.0-125		12/23/2019 16:55	WG1401520

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND	J4	0.000500	1	12/22/2019 14:05	WG1400122
Toluene	ND		0.00100	1	12/22/2019 14:05	WG1400122
Ethylbenzene	ND		0.000500	1	12/22/2019 14:05	WG1400122
Total Xylene	ND		0.00150	1	12/22/2019 14:05	WG1400122
TPH (GC/FID) Low Fraction	ND		0.100	1	12/22/2019 14:05	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	105		78.0-120		12/22/2019 14:05	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	101		79.0-125		12/22/2019 14:05	WG1400122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND	J4	0.000500	1	12/22/2019 14:26	WG1400122
Toluene	ND		0.00100	1	12/22/2019 14:26	WG1400122
Ethylbenzene	ND		0.000500	1	12/22/2019 14:26	WG1400122
Total Xylene	ND		0.00150	1	12/22/2019 14:26	WG1400122
TPH (GC/FID) Low Fraction	ND		0.100	1	12/22/2019 14:26	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	102		78.0-120		12/22/2019 14:26	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	99.9		79.0-125		12/22/2019 14:26	WG1400122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND	J4	0.000500	1	12/22/2019 14:46	WG1400122
Toluene	ND		0.00100	1	12/22/2019 14:46	WG1400122
Ethylbenzene	ND		0.000500	1	12/22/2019 14:46	WG1400122
Total Xylene	ND		0.00150	1	12/22/2019 14:46	WG1400122
TPH (GC/FID) Low Fraction	ND		0.100	1	12/22/2019 14:46	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	104		78.0-120		12/22/2019 14:46	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	100		79.0-125		12/22/2019 14:46	WG1400122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND	J4	0.000500	1	12/22/2019 15:06	WG1400122
Toluene	ND		0.00100	1	12/22/2019 15:06	WG1400122
Ethylbenzene	ND		0.000500	1	12/22/2019 15:06	WG1400122
Total Xylene	ND		0.00150	1	12/22/2019 15:06	WG1400122
TPH (GC/FID) Low Fraction	ND		0.100	1	12/22/2019 15:06	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	105		78.0-120		12/22/2019 15:06	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	101		79.0-125		12/22/2019 15:06	WG1400122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0141		0.000500	1	12/23/2019 17:17	WG1401520
Toluene	ND		0.00100	1	12/22/2019 15:27	WG1400122
Ethylbenzene	0.00203		0.000500	1	12/22/2019 15:27	WG1400122
Total Xylene	0.112		0.00150	1	12/22/2019 15:27	WG1400122
TPH (GC/FID) Low Fraction	1.18		0.100	1	12/22/2019 15:27	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	101		78.0-120		12/22/2019 15:27	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	85.0		78.0-120		12/23/2019 17:17	WG1401520
(S) a,a,a-Trifluorotoluene(PID)	96.9		79.0-125		12/22/2019 15:27	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	104		79.0-125		12/23/2019 17:17	WG1401520

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND	J4	0.000500	1	12/22/2019 15:47	WG1400122
Toluene	ND		0.00100	1	12/22/2019 15:47	WG1400122
Ethylbenzene	ND		0.000500	1	12/22/2019 15:47	WG1400122
Total Xylene	ND		0.00150	1	12/22/2019 15:47	WG1400122
TPH (GC/FID) Low Fraction	ND		0.100	1	12/22/2019 15:47	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	103		78.0-120		12/22/2019 15:47	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	99.0		79.0-125		12/22/2019 15:47	WG1400122

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND	J4	0.000500	1	12/22/2019 16:07	WG1400122
Toluene	ND		0.00100	1	12/22/2019 16:07	WG1400122
Ethylbenzene	ND		0.000500	1	12/22/2019 16:07	WG1400122
Total Xylene	ND		0.00150	1	12/22/2019 16:07	WG1400122
TPH (GC/FID) Low Fraction	ND		0.100	1	12/22/2019 16:07	WG1400122
(S) a,a,a-Trifluorotoluene(FID)	103		78.0-120		12/22/2019 16:07	WG1400122
(S) a,a,a-Trifluorotoluene(PID)	97.3		79.0-125		12/22/2019 16:07	WG1400122

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3485156-3 12/22/19 11:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	105			78.0-120
(S) a,a,a-Trifluorotoluene(PID)	98.0			79.0-125

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3485156-1 12/22/19 10:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0627	125	77.0-122	J4
Toluene	0.0500	0.0564	113	80.0-121	
Ethylbenzene	0.0500	0.0583	117	80.0-123	
Total Xylene	0.150	0.157	105	47.0-154	
(S) a,a,a-Trifluorotoluene(FID)			102	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			105	79.0-125	

Laboratory Control Sample (LCS)

(LCS) R3485156-2 12/22/19 10:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.50	81.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			108	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			120	79.0-125	



L1172123-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1172123-05 12/22/19 12:43 • (MS) R3485156-4 12/22/19 20:12 • (MSD) R3485156-5 12/22/19 20:33

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 %
Benzene	0.0500	0.670	0.613	0.690	0.000	40.0	1	10.0-160	EV	E	11.8	21
Toluene	0.0500	0.0185	0.0441	0.0471	51.2	57.2	1	12.0-148			6.58	21
Ethylbenzene	0.0500	0.0280	0.0560	0.0609	56.0	65.8	1	22.0-149			8.38	21
Total Xylene	0.150	0.0155	0.0912	0.0954	50.5	53.3	1	13.0-155			4.50	21
(S) a,a,a-Trifluorotoluene(FID)					60.2	64.9		78.0-120	J2	J2		
(S) a,a,a-Trifluorotoluene(PID)					71.5	70.1		79.0-125	J2	J2		

L1172123-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1172123-05 12/22/19 12:43 • (MS) R3485156-6 12/22/19 20:53 • (MSD) R3485156-7 12/22/19 21:13

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 %
TPH (GC/FID) Low Fraction	5.50	6.58	10.4	11.0	69.5	80.4	1	10.0-160			5.61	22
(S) a,a,a-Trifluorotoluene(FID)					79.7	81.8		78.0-120				
(S) a,a,a-Trifluorotoluene(PID)					83.1	84.6		79.0-125				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3485640-3 12/23/19 14:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
(S) a,a,a-Trifluorotoluene(FID)	106			78.0-120
(S) a,a,a-Trifluorotoluene(PID)	101			79.0-125

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS)

(LCS) R3485640-1 12/23/19 11:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0592	118	77.0-122	
(S) a,a,a-Trifluorotoluene(FID)			106	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			101	79.0-125	



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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.
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



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* 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 National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
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}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

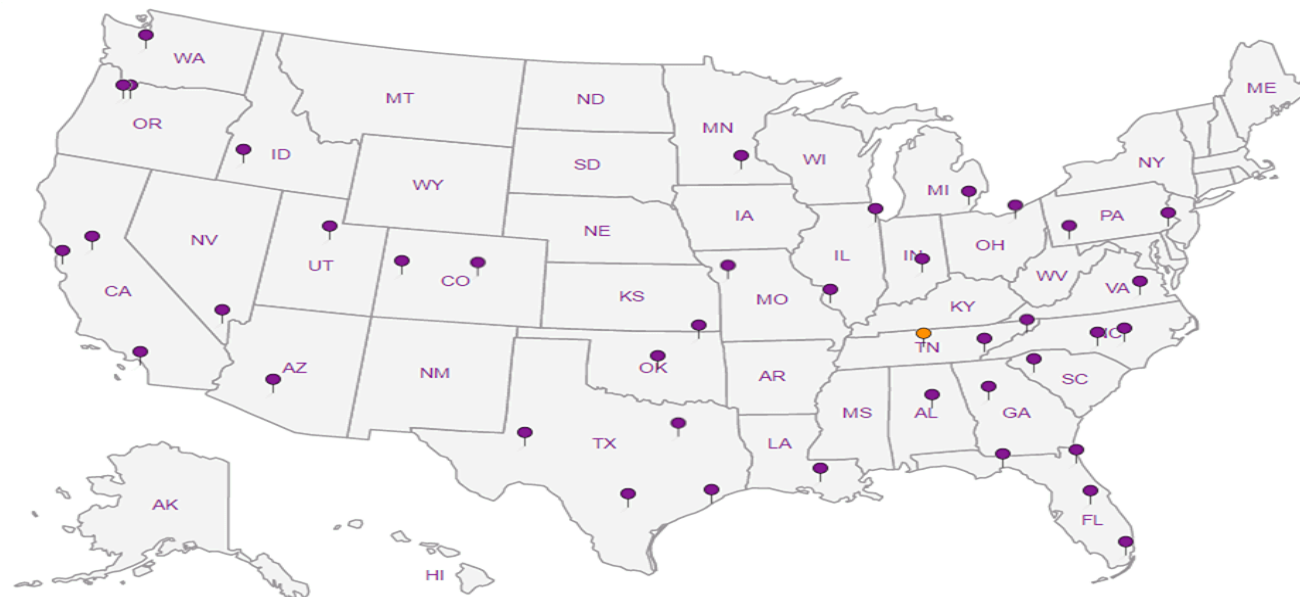
Third Party Federal Accreditations



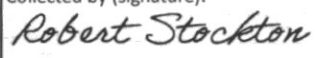
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



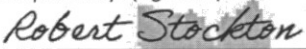
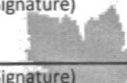
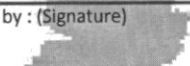
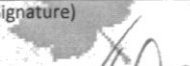
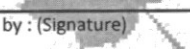
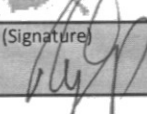
Company Name/Address: Entrada Consulting Group 330 Grand Avenue, Unit C Grand Junction, CO 81501				Billing Information: 				Analysis / Container / Preservative												Chain of Custody Page <u>1</u> of <u>1</u>  ESC L.A.B S.C.I.E.N.C.E.S YOUR LAB OF CHOICE 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 			
Report to: Robert Stockton				Email To: rstockton@entradainc.com				BTEX / GRO														L # <u>6172218</u>	
Project Description: 017-006 Rock Springs				City/State Collected: Cascade Crk.																		Table #	
Phone: (970) 640-0568 Fax:		Client Project # 017-006		Lab Project #		Acctnum:																	
Collected by (print): Robert Stockton		Site/Facility ID # Rock Springs		P.O. # 017-006		Template:																	
Collected by (signature): 		Rush? (Lab MUST Be Notified) ___ Same Day200% ___ Next Day100% ___ Two Day50% ___ Three Day25%		Date Results Needed		Prelogin:																	
Immediately Packed on Ice N ___ Y <input checked="" type="checkbox"/>		Email? ___ No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No ___ Yes		No. of Cntrs		Cooler:																	
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs													Shipped Via:			
RS-2		Grab	GW		12/15/19	1530	2													Rem./Contaminant		Sample # (lab only)	
RS-3		Grab	GW		12/15/19	1500	2																
RS-4		Grab	GW		12/15/19	1410	2																
RS-5		Grab	GW		12/15/19	1445	2																
RS-7		Grab	GW		12/15/19	1400	2																
DS		Grab	GW		12/15/19	1610	2																
SS		Grab	GW		12/15/19	1545	2																
Pond		Grab	GW		12/15/19	1555	2																
		Grab	GW																				
		Grab	GW																				

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other _____

pH _____ Temp _____

Flow _____ Other _____

Remarks:

Relinquished by: (Signature) 		Date: 12/17/19		Time:		Received by: (Signature) 		Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____		Condition: (lab use only)	
Relinquished by: (Signature) 		Date:		Time:		Received by: (Signature) 		Temp: <u>24°C</u> <u>0.4°C</u> Bottles Received: <u>16</u>		COC Seal Intact: ___ Y ___ N <input checked="" type="checkbox"/> NA	
Relinquished by: (Signature) 		Date:		Time:		Received for lab by: (Signature) 		Date: <u>12-19-19</u> Time: <u>1000</u>		pH Checked: NCF: <u>X</u>	

Troy Dunlap



Login #: L1172218	Client: ENTCONGJCO	Date: 12/18/19	Evaluated by: Troy Dunlap
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Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	Insufficient packing material around container
Temperature not in range	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	Improper handling by carrier (FedEx / UPS / Cour
pH not in range.	Please specify TCLP requested.	Sample was frozen
Insufficient sample volume.	Received additional samples not listed on coc.	Container lid not intact
Sample is biphasic.	Sample ids on containers do not match ids on coc	If no Chain of Custody:
Vials received with headspace.	Trip Blank not received.	Received by:
Broken container	Client did not "X" analysis.	Date/Time:
Broken container:	X Chain of Custody is missing	Temp./Cont. Rec./pH:
Sufficient sample remains		Carrier: FedEx
		Tracking# 4510 1663 4863

Login Comments: COC is missing for multiple projects. Rocks Springs, Axia, PCWS and BCCS. Samples ID's dates and times attached.

Client informed by:	x	Call	x	Email	Voice Mail	Date: 12/18/19	Time: 2141
TSR Initials: CMW	Client Contact: Robert Stockton						

Login Instructions:

COCs are attached.