ANALYTICAL REPORT

February 23, 2016

OXY USA Inc - Grand Junction, CO

Sample Delivery Group:	L817766
Samples Received:	02/13/2016
Project Number:	014-2069
Description:	014-2069
Site:	ROCK SPRINGS
Report To:	Blair Rollins 760 Horizon Dr., Ste. 101 Grand Junction, CO 81506

Entire Report Reviewed By:

Mark W. Beasley
Technical Service Representative

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

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LOWER PIT L817766-01 GW

Collected by: Lilly Griffin
Collected date/time: 02/11/16 11:55
Received date/time: 02/13/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG849408	1	02/19/16 15:31	02/19/16 15:31	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG849387	1	02/20/16 06:05	02/20/16 06:05	DWR

SOUTH SPRING L817766-02 GW

Collected by: Lilly Griffin
Collected date/time: 02/11/16 12:24
Received date/time: 02/13/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG849408	1	02/19/16 15:52	02/19/16 15:52	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG849387	1	02/20/16 06:24	02/20/16 06:24	DWR

RS-9 L817766-03 GW

Collected by: Lilly Griffin
Collected date/time: 02/11/16 13:32
Received date/time: 02/13/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG849408	1	02/19/16 16:12	02/19/16 16:12	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG849387	1	02/20/16 06:44	02/20/16 06:44	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG851289	5	02/23/16 02:39	02/23/16 02:39	LRL

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Mark W. Beasley
Technical Service Representative

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	02/19/2016 15:31	WG849408
(S) a,a,a-Trifluorotoluene(FID)	*99.8*		*62.0-128*		*02/19/2016 15:31*	WG849408

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	02/20/2016 06:05	WG849387
Toluene	ND		0.00500	1	02/20/2016 06:05	WG849387
Ethylbenzene	ND		0.00100	1	02/20/2016 06:05	WG849387
Total Xylenes	ND		0.00300	1	02/20/2016 06:05	WG849387
(S) Toluene-d8	*103*		*90.0-115*		*02/20/2016 06:05*	WG849387
(S) Dibromofluoromethane	*98.1*		*79.0-121*		*02/20/2016 06:05*	WG849387
(S) a,a,a-Trifluorotoluene	*108*		*90.4-116*		*02/20/2016 06:05*	WG849387
(S) 4-Bromofluorobenzene	*105*		*80.1-120*		*02/20/2016 06:05*	WG849387

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	02/19/2016 15:52	WG849408
(S) a,a,a-Trifluorotoluene(FID)	*98.3*		*62.0-128*		*02/19/2016 15:52*	WG849408

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0208		0.00100	1	02/20/2016 06:24	WG849387
Toluene	ND		0.00500	1	02/20/2016 06:24	WG849387
Ethylbenzene	ND		0.00100	1	02/20/2016 06:24	WG849387
Total Xylenes	0.00406		0.00300	1	02/20/2016 06:24	WG849387
(S) Toluene-d8	*102*		*90.0-115*		*02/20/2016 06:24*	WG849387
(S) Dibromofluoromethane	*100*		*79.0-121*		*02/20/2016 06:24*	WG849387
(S) a,a,a-Trifluorotoluene	*108*		*90.4-116*		*02/20/2016 06:24*	WG849387
(S) 4-Bromofluorobenzene	*104*		*80.1-120*		*02/20/2016 06:24*	WG849387

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	5.03		0.100	1	02/19/2016 16:12	WG849408
(S) a,a,a-Trifluorotoluene(FID)	*92.1*		*62.0-128*		*02/19/2016 16:12*	WG849408

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0943		0.00100	1	02/20/2016 06:44	WG849387
Toluene	ND		0.00500	1	02/20/2016 06:44	WG849387
Ethylbenzene	0.0425		0.00100	1	02/20/2016 06:44	WG849387
Total Xylenes	0.0563		0.0150	5	02/23/2016 02:39	WG851289
(S) Toluene-d8	*103*		*90.0-115*		*02/20/2016 06:44*	WG849387
(S) Dibromofluoromethane	*98.0*		*79.0-121*		*02/20/2016 06:44*	WG849387
(S) a,a,a-Trifluorotoluene	*109*		*90.4-116*		*02/20/2016 06:44*	WG849387
(S) 4-Bromofluorobenzene	*106*		*80.1-120*		*02/20/2016 06:44*	WG849387

Method Blank (MB)

(MB) 02/19/16 08:49

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
TPH (GC/FID) Low Fraction	ND		0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.9*		*62.0-128*

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

(LCS) 02/19/16 07:46 • (LCSD) 02/19/16 08:07

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	4.50	4.61	81.9	83.9	67.0-132			2.44	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*102*	*62.0-128*				

L817795-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/19/16 12:03 • (MS) 02/19/16 11:00 • (MSD) 02/19/16 11:21

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
TPH (GC/FID) Low Fraction	5.50	ND	6.97	6.75	127	123	1	50.0-143			3.18	20
(S) a,a,a-Trifluorotoluene(FID)					*101*	*103*		*62.0-128*				

Method Blank (MB)

(MB) 02/20/16 00:46

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Benzene	ND		0.00100
Ethylbenzene	ND		0.00100
Toluene	ND		0.00500
Xylenes, Total	ND		0.00300
(S) Toluene-d8	*102*		*90.0-115*
(S) Dibromofluoromethane	*98.2*		*79.0-121*
(S) 4-Bromofluorobenzene	*104*		*80.1-120*
(S) a,a,a-Trifluorotoluene	*108*		*90.4-116*

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

(LCS) 02/19/16 23:27 • (LCSD) 02/19/16 23:47

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 %
Benzene	0.0250	0.0224	0.0235	89.5	94.0	73.0-122			4.87	20
Ethylbenzene	0.0250	0.0240	0.0249	96.0	99.7	80.9-121			3.82	20
Toluene	0.0250	0.0220	0.0232	87.8	92.8	77.9-116			5.47	20
Xylenes, Total	0.0750	0.0707	0.0742	94.3	98.9	79.2-122			4.76	20
(S) Toluene-d8				*102*	*102*	*90.0-115*				
(S) Dibromofluoromethane				*97.6*	*97.2*	*79.0-121*				
(S) a,a,a-Trifluorotoluene				*108*	*108*	*90.4-116*				
(S) 4-Bromofluorobenzene				*102*	*102*	*80.1-120*				

L817372-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/20/16 02:08 • (MS) 02/20/16 01:08 • (MSD) 02/20/16 01:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	ND	0.0208	0.0211	83.1	84.4	1	58.6-133			1.62	20
Ethylbenzene	0.0250	ND	0.0230	0.0234	92.0	93.6	1	62.7-136			1.76	20
Toluene	0.0250	ND	0.0208	0.0214	83.1	85.5	1	67.8-124			2.79	20
Xylenes, Total	0.0750	ND	0.0679	0.0696	90.5	92.9	1	65.6-133			2.54	20
(S) Toluene-d8					*103*	*103*		*90.0-115*				
(S) Dibromofluoromethane					*98.2*	*97.3*		*79.0-121*				
(S) a,a,a-Trifluorotoluene					*109*	*109*		*90.4-116*				
(S) 4-Bromofluorobenzene					*102*	*103*		*80.1-120*				

Method Blank (MB)

(MB) 02/22/16 19:17

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
Xylenes, Total	ND		0.00300

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

(LCS) 02/22/16 16:36 • (LCSD) 02/22/16 16:57

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Xylenes, Total	0.0750	0.0750	0.0760	100	101	79.2-122			1.33	20

L818222-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/23/16 03:00 • (MS) 02/23/16 00:12 • (MSD) 02/23/16 00:33

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Xylenes, Total	0.0750	ND	0.0611	0.0623	81.4	83.0	1	65.6-133			1.98	20

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
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.
(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.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

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

ESC Lab Sciences 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.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

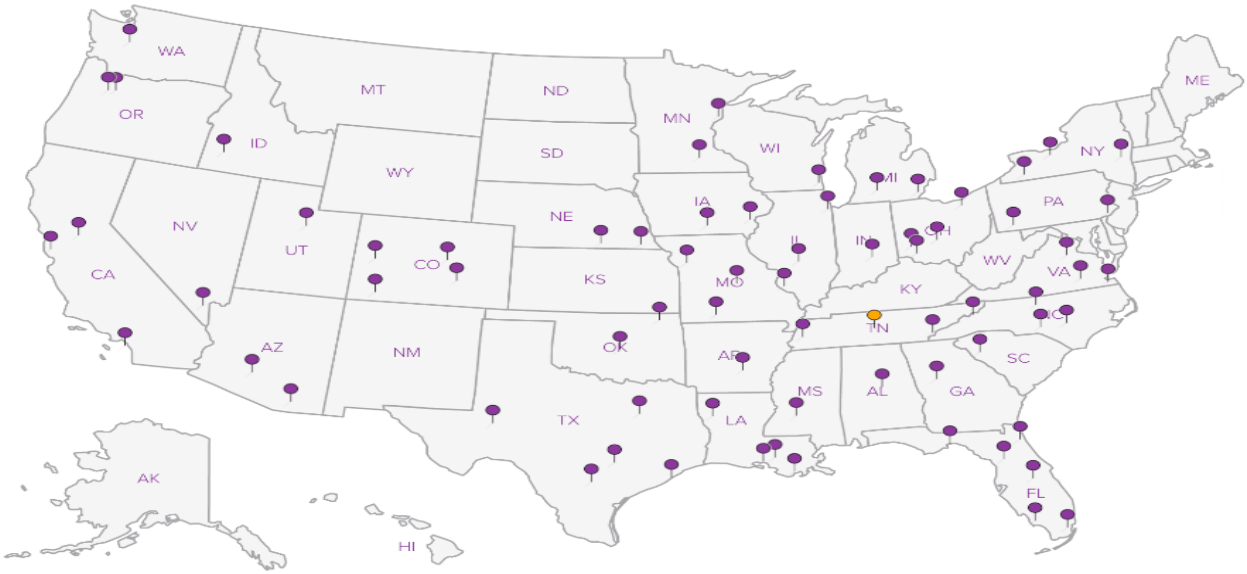
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 817766
1172

Company Name/Address:
OXY USA Inc.
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

Billing Information:

Report to: **Blair Rollins**

Email To: **blair_rollins@oxy.com**

Project Description: **014-2069**

City/State Collected: **Cascade Crk.**

Phone: **(970) 263-7800**
Fax:

Client Project # **014-2069**

Lab Project #

Collected by (print): LILLY GRIFFIN

Site/Facility ID # **Rock Springs**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Acctnum:
Template:
Prelogin:
TSR:
Cooler:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX / GRO	Rem./Contaminant	Sample # (lab only)
LOWER PIT	Grab	GW	NA	02/11/15	1155	3	X		01
LP	Grab	GW			1156		HOLD		
SOUTH SPRING	Grab	GW			1224		X		02
SS	Grab	GW			1225		HOLD		
RS-9	Grab	GW			1332		X		03
WBU-9	Grab	GW			1333		HOLD		
	Grab	GW							
	Grab	GW							

6436 7136 0469
2-067

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ _____
Temp: 3.1 °C Bottles Received: 18 VP
Date: 2/13/16 Time: 900

Condition: (lab use only) a GFDO
COC Seal Intact: ___Y ___N ___NA
pH Checked: NCF:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	02/11/16	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	2/11/16	1730	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

ANALYTICAL REPORT

July 06, 2016

Olsson Associates - CO

Sample Delivery Group:	L844463
Samples Received:	06/30/2016
Project Number:	A14-2069
Description:	A14-2069

Report To: Robert Stockton
760 Horizon Drive, Ste 102
Grand Junction, CO 81506

Entire Report Reviewed By:

Shane Gambill
Technical Service Representative

TABLE OF CONTENTS

DS L844463-01 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 10:05 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/02/16 20:17	07/02/16 20:17	JAH

POND L844463-02 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 10:31 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/02/16 23:29	07/02/16 23:29	JAH

SS L844463-03 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 11:05 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/02/16 23:50	07/02/16 23:50	JAH

NS L844463-04 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 11:24 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/03/16 00:12	07/03/16 00:12	JAH

RS4 L844463-05 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 12:09 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/03/16 00:34	07/03/16 00:34	JAH

RS2 L844463-06 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 12:42 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/03/16 00:55	07/03/16 00:55	JAH

RS3 L844463-07 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 13:03 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/03/16 01:17	07/03/16 01:17	JAH

RS5 L844463-08 GW

Collected by: Robert Stockton | Collected date/time: 06/28/16 13:22 | Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/03/16 01:38	07/03/16 01:38	JAH

RS6 L844463-09 GW

Collected by: Robert Stockton
Collected date/time: 06/28/16 13:55
Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/03/16 02:00	07/03/16 02:00	JAH

RS7 L844463-10 GW

Collected by: Robert Stockton
Collected date/time: 06/28/16 14:18
Received date/time: 06/30/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG885303	1	07/03/16 02:22	07/03/16 02:22	JAH

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

Shane Gambill
Technical Service Representative

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	07/02/2016 20:17	WG885303
Toluene	ND		0.00500	1	07/02/2016 20:17	WG885303
Ethylbenzene	ND		0.000500	1	07/02/2016 20:17	WG885303
Total Xylene	ND		0.00150	1	07/02/2016 20:17	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/02/2016 20:17	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*100*		*62.0-128*		*07/02/2016 20:17*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*92.6*		*55.0-122*		*07/02/2016 20:17*	WG885303

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	07/02/2016 23:29	WG885303
Toluene	ND		0.00500	1	07/02/2016 23:29	WG885303
Ethylbenzene	ND		0.000500	1	07/02/2016 23:29	WG885303
Total Xylene	ND		0.00150	1	07/02/2016 23:29	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/02/2016 23:29	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*99.9*		*62.0-128*		*07/02/2016 23:29*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*93.0*		*55.0-122*		*07/02/2016 23:29*	WG885303

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0639		0.000500	1	07/02/2016 23:50	WG885303
Toluene	ND		0.00500	1	07/02/2016 23:50	WG885303
Ethylbenzene	0.00391		0.000500	1	07/02/2016 23:50	WG885303
Total Xylene	0.0297		0.00150	1	07/02/2016 23:50	WG885303
TPH (GC/FID) Low Fraction	0.225		0.100	1	07/02/2016 23:50	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*96.7*		*62.0-128*		*07/02/2016 23:50*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*102*		*55.0-122*		*07/02/2016 23:50*	WG885303

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	07/03/2016 00:12	WG885303
Toluene	ND		0.00500	1	07/03/2016 00:12	WG885303
Ethylbenzene	ND		0.000500	1	07/03/2016 00:12	WG885303
Total Xylene	ND		0.00150	1	07/03/2016 00:12	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/03/2016 00:12	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*99.8*		*62.0-128*		*07/03/2016 00:12*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*92.8*		*55.0-122*		*07/03/2016 00:12*	WG885303

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0261		0.000500	1	07/03/2016 00:34	WG885303
Toluene	ND		0.00500	1	07/03/2016 00:34	WG885303
Ethylbenzene	0.00449		0.000500	1	07/03/2016 00:34	WG885303
Total Xylene	0.0312		0.00150	1	07/03/2016 00:34	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/03/2016 00:34	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*98.5*		*62.0-128*		*07/03/2016 00:34*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*95.1*		*55.0-122*		*07/03/2016 00:34*	WG885303

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.000926		0.000500	1	07/03/2016 00:55	WG885303
Toluene	ND		0.00500	1	07/03/2016 00:55	WG885303
Ethylbenzene	ND		0.000500	1	07/03/2016 00:55	WG885303
Total Xylene	ND		0.00150	1	07/03/2016 00:55	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/03/2016 00:55	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*101*		*62.0-128*		*07/03/2016 00:55*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*92.8*		*55.0-122*		*07/03/2016 00:55*	WG885303

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	07/03/2016 01:17	WG885303
Toluene	ND		0.00500	1	07/03/2016 01:17	WG885303
Ethylbenzene	ND		0.000500	1	07/03/2016 01:17	WG885303
Total Xylene	ND		0.00150	1	07/03/2016 01:17	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/03/2016 01:17	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*100*		*62.0-128*		*07/03/2016 01:17*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*93.9*		*55.0-122*		*07/03/2016 01:17*	WG885303

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.000860		0.000500	1	07/03/2016 01:38	WG885303
Toluene	ND		0.00500	1	07/03/2016 01:38	WG885303
Ethylbenzene	ND		0.000500	1	07/03/2016 01:38	WG885303
Total Xylene	ND		0.00150	1	07/03/2016 01:38	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/03/2016 01:38	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*99.9*		*62.0-128*		*07/03/2016 01:38*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*92.4*		*55.0-122*		*07/03/2016 01:38*	WG885303

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	07/03/2016 02:00	WG885303
Toluene	ND		0.00500	1	07/03/2016 02:00	WG885303
Ethylbenzene	ND		0.000500	1	07/03/2016 02:00	WG885303
Total Xylene	ND		0.00150	1	07/03/2016 02:00	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/03/2016 02:00	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*99.4*		*62.0-128*		*07/03/2016 02:00*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*92.7*		*55.0-122*		*07/03/2016 02:00*	WG885303

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	07/03/2016 02:22	WG885303
Toluene	ND		0.00500	1	07/03/2016 02:22	WG885303
Ethylbenzene	ND		0.000500	1	07/03/2016 02:22	WG885303
Total Xylene	ND		0.00150	1	07/03/2016 02:22	WG885303
TPH (GC/FID) Low Fraction	ND		0.100	1	07/03/2016 02:22	WG885303
(S) a,a,a-Trifluorotoluene(FID)	*99.5*		*62.0-128*		*07/03/2016 02:22*	WG885303
(S) a,a,a-Trifluorotoluene(PID)	*92.5*		*55.0-122*		*07/03/2016 02:22*	WG885303

Method Blank (MB)

(MB) R3147730-5 07/02/16 15:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000180	0.00500
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)	*100*			*62.0-128*
(S) a,a,a-Trifluorotoluene(PID)	*93.5*			*55.0-122*

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

(LCS) R3147730-1 07/02/16 13:58 • (LCSD) R3147730-2 07/02/16 14:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Benzene	0.0500	0.0575	0.0540	115	108	70.0-130			6.35	20
Toluene	0.0500	0.0571	0.0534	114	107	70.0-130			6.66	20
Ethylbenzene	0.0500	0.0587	0.0553	117	111	70.0-130			5.97	20
Total Xylene	0.150	0.181	0.168	121	112	70.0-130			7.83	20
(S) a,a,a-Trifluorotoluene(FID)				*99.6*	*99.9*	*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)				*100*	*103*	*55.0-122*				

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

(LCS) R3147730-3 07/02/16 14:41 • (LCSD) R3147730-4 07/02/16 15:03

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	5.61	5.71	102	104	67.0-132			1.87	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)				*110*	*110*	*55.0-122*				

L844463-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L844463-01 07/02/16 20:17 • (MS) R3147730-6 07/02/16 18:07 • (MSD) R3147730-7 07/02/16 18:29

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Benzene	0.0500	ND	0.0398	0.0445	79.6	89.0	1	57.2-131			11.1	20
Toluene	0.0500	ND	0.0400	0.0446	79.9	89.1	1	63.7-134			10.9	20
Ethylbenzene	0.0500	ND	0.0433	0.0483	86.6	96.6	1	67.5-135			10.9	20
Total Xylene	0.150	ND	0.139	0.151	92.4	101	1	65.9-138			8.62	20
(S) a,a,a-Trifluorotoluene(FID)					*98.5*	*100*		*62.0-128*				

L844463-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L844463-01 07/02/16 20:17 • (MS) R3147730-6 07/02/16 18:07 • (MSD) R3147730-7 07/02/16 18:29

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 %
(S) a,a,a-Trifluorotoluene(PID)					*96.2*	*99.4*		*55.0-122*				

L844463-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L844463-01 07/02/16 20:17 • (MS) R3147730-8 07/02/16 18:51 • (MSD) R3147730-9 07/02/16 19:13

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	ND	4.56	4.51	82.9	82.0	1	50.0-143			1.10	20
(S) a,a,a-Trifluorotoluene(FID)					*100*	*99.9*		*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)					*108*	*108*		*55.0-122*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
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.
(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.
Rec.	Recovery.

Qualifier	Description

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

ESC Lab Sciences 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.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

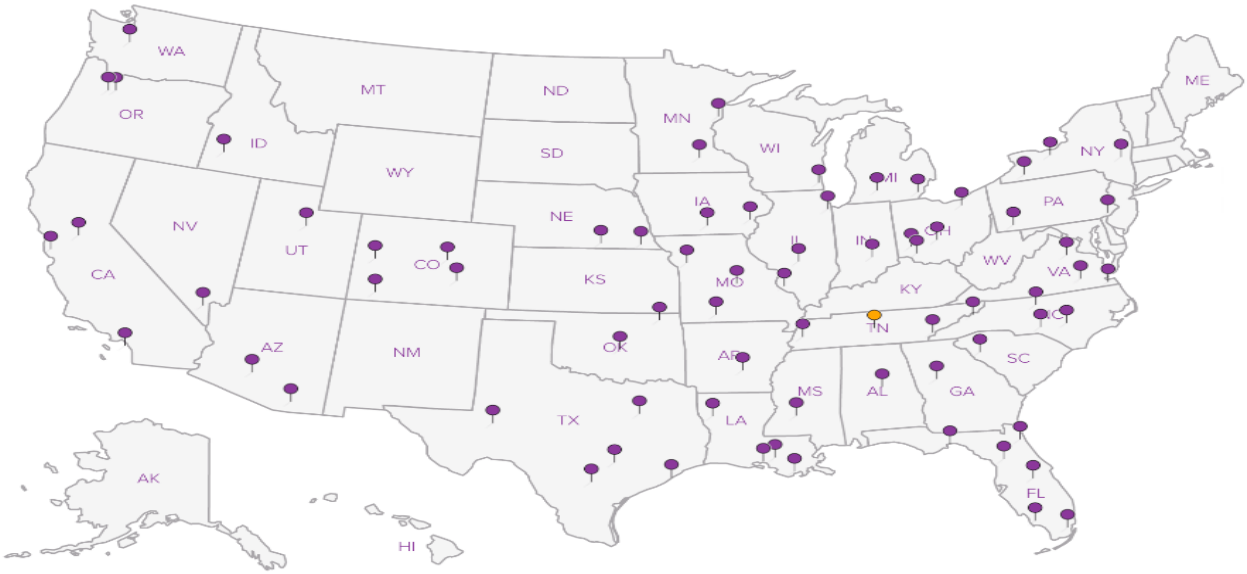
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Olsson Associates
760 Horizon Drive, Suite 102
Grand Junction, CO 81506

Billing Information:

Report to: **Robert Stockton**

Email To: **rstockton@olssonassociates.com**

Project Description: **A14-2069**

City/State Collected: **Cascade Crk.**

Phone: **(970) 263-7800**
Fax:

Client Project # **A14-2069**

Lab Project #

Collected by (print): Robert Stockton

Site/Facility ID # **Rock Springs**

P.O. #

Collected by (signature):
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L8VV163
G117

Acctnum:
Template:
Prelogin:
TSR:
Cooler:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX / GRO	Rem./Contaminant	Sample # (lab only)
DS	Grab	GW		6/28/16	1005	4	X		-01
Pond	Grab	GW		6/28/16	1031	4	X		02
SS	Grab	GW		6/28/16	1105	4	X		03
NS	Grab	GW		6/28/16	1124	4	X		04
RS4	Grab	GW		6/28/16	1209	4	X		05
RS2	Grab	GW		6/28/16	1242	4	X		06
RS3	Grab	GW		6/28/16	1303	4	X		07
RS5	Grab	GW		6/28/16	1322	4	X		08
RS6	Grab	GW		6/28/16	1355	4	X		09
RS7	Grab	GW		6/28/16	1418	4	X		10

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

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6/29/16	1430	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6/29/16	17:30	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 3.2 °C Bottles Received: 40VP

Date: 6/30/16 Time: 900

Condition: (lab use only) Good

COC Seal Intact: ____Y ____N ____NA

pH Checked: NCF:

ANALYTICAL REPORT

September 16, 2016

Olsson Associates - CO

Sample Delivery Group:	L858373
Samples Received:	09/08/2016
Project Number:	A14-2069
Description:	A14-2069
Site:	ROCK SPRINGS
Report To:	Stewart Hall 760 Horizon Drive, Ste 102 Grand Junction, CO 81506

Entire Report Reviewed By:

Jason Romer
Technical Service Representative

TABLE OF CONTENTS

DS L858373-01 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 12:40 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/11/16 00:23	09/11/16 00:23	LRL

POND L858373-02 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 12:30 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/11/16 00:46	09/11/16 00:46	LRL

SS L858373-03 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 12:10 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/11/16 01:08	09/11/16 01:08	LRL

RS7 L858373-04 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 11:45 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/16/16 02:02	09/16/16 02:02	BMB

RS4 L858373-05 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 10:25 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/11/16 01:52	09/11/16 01:52	LRL

RS2 L858373-06 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 11:20 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/11/16 02:14	09/11/16 02:14	LRL

RS3 L858373-07 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 10:55 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/11/16 02:37	09/11/16 02:37	LRL

RS5 L858373-08 GW

Collected by: Kirk Richards | Collected date/time: 09/07/16 10:15 | Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/16/16 02:24	09/16/16 02:24	BMB

RS6 L858373-09 GW

Collected by: Kirk Richards
Collected date/time: 09/07/16 09:30
Received date/time: 09/08/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG906708	1	09/11/16 03:21	09/11/16 03:21	LRL

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jason Romer
Technical Service Representative

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	09/11/2016 00:23	WG906708
Toluene	ND		0.00500	1	09/11/2016 00:23	WG906708
Ethylbenzene	ND		0.000500	1	09/11/2016 00:23	WG906708
Total Xylene	ND		0.00150	1	09/11/2016 00:23	WG906708
TPH (GC/FID) Low Fraction	ND		0.100	1	09/11/2016 00:23	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*97.2*		*62.0-128*		*09/11/2016 00:23*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*09/11/2016 00:23*	WG906708

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	09/11/2016 00:46	WG906708
Toluene	0.00798		0.00500	1	09/11/2016 00:46	WG906708
Ethylbenzene	ND		0.000500	1	09/11/2016 00:46	WG906708
Total Xylene	ND		0.00150	1	09/11/2016 00:46	WG906708
TPH (GC/FID) Low Fraction	ND		0.100	1	09/11/2016 00:46	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*97.0*		*62.0-128*		*09/11/2016 00:46*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*09/11/2016 00:46*	WG906708

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0342		0.000500	1	09/11/2016 01:08	WG906708
Toluene	ND		0.00500	1	09/11/2016 01:08	WG906708
Ethylbenzene	0.00167	B	0.000500	1	09/11/2016 01:08	WG906708
Total Xylene	0.00984	B	0.00150	1	09/11/2016 01:08	WG906708
TPH (GC/FID) Low Fraction	0.240	B	0.100	1	09/11/2016 01:08	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*97.3*		*62.0-128*		*09/11/2016 01:08*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*102*		*55.0-122*		*09/11/2016 01:08*	WG906708

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	09/16/2016 02:02	WG906708
Toluene	ND		0.00500	1	09/16/2016 02:02	WG906708
Ethylbenzene	ND		0.000500	1	09/16/2016 02:02	WG906708
Total Xylene	ND		0.00150	1	09/16/2016 02:02	WG906708
TPH (GC/FID) Low Fraction	ND		0.100	1	09/16/2016 02:02	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*101*		*62.0-128*		*09/16/2016 02:02*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*94.1*		*55.0-122*		*09/16/2016 02:02*	WG906708

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0225		0.000500	1	09/11/2016 01:52	WG906708
Toluene	ND		0.00500	1	09/11/2016 01:52	WG906708
Ethylbenzene	0.00642		0.000500	1	09/11/2016 01:52	WG906708
Total Xylene	0.0399	B	0.00150	1	09/11/2016 01:52	WG906708
TPH (GC/FID) Low Fraction	0.229	B	0.100	1	09/11/2016 01:52	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*96.4*		*62.0-128*		*09/11/2016 01:52*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*102*		*55.0-122*		*09/11/2016 01:52*	WG906708

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	09/11/2016 02:14	WG906708
Toluene	ND		0.00500	1	09/11/2016 02:14	WG906708
Ethylbenzene	ND		0.000500	1	09/11/2016 02:14	WG906708
Total Xylene	ND		0.00150	1	09/11/2016 02:14	WG906708
TPH (GC/FID) Low Fraction	ND		0.100	1	09/11/2016 02:14	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*97.3*		*62.0-128*		*09/11/2016 02:14*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*09/11/2016 02:14*	WG906708

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0127		0.000500	1	09/11/2016 02:37	WG906708
Toluene	ND		0.00500	1	09/11/2016 02:37	WG906708
Ethylbenzene	ND		0.000500	1	09/11/2016 02:37	WG906708
Total Xylene	0.00191	B	0.00150	1	09/11/2016 02:37	WG906708
TPH (GC/FID) Low Fraction	ND		0.100	1	09/11/2016 02:37	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*97.0*		*62.0-128*		*09/11/2016 02:37*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*102*		*55.0-122*		*09/11/2016 02:37*	WG906708

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	09/16/2016 02:24	WG906708
Toluene	ND		0.00500	1	09/16/2016 02:24	WG906708
Ethylbenzene	ND		0.000500	1	09/16/2016 02:24	WG906708
Total Xylene	ND		0.00150	1	09/16/2016 02:24	WG906708
TPH (GC/FID) Low Fraction	ND		0.100	1	09/16/2016 02:24	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*100*		*62.0-128*		*09/16/2016 02:24*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*93.8*		*55.0-122*		*09/16/2016 02:24*	WG906708

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	09/11/2016 03:21	WG906708
Toluene	ND		0.00500	1	09/11/2016 03:21	WG906708
Ethylbenzene	ND		0.000500	1	09/11/2016 03:21	WG906708
Total Xylene	ND		0.00150	1	09/11/2016 03:21	WG906708
TPH (GC/FID) Low Fraction	ND		0.100	1	09/11/2016 03:21	WG906708
(S) a,a,a-Trifluorotoluene(FID)	*97.0*		*62.0-128*		*09/11/2016 03:21*	WG906708
(S) a,a,a-Trifluorotoluene(PID)	*102*		*55.0-122*		*09/11/2016 03:21*	WG906708

Method Blank (MB)

(MB) R3163840-5 09/10/16 20:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	0.000388	J	0.000180	0.00500
Ethylbenzene	0.000194	J	0.000160	0.000500
Total Xylene	U		0.000510	0.00150
TPH (GC/FID) Low Fraction	0.0334	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.1*			*62.0-128*
(S) a,a,a-Trifluorotoluene(PID)	*103*			*55.0-122*

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

(LCS) R3163840-1 09/10/16 18:44 • (LCSD) R3163840-2 09/10/16 19:06

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Benzene	0.0500	0.0467	0.0467	93.5	93.4	70.0-130			0.130	20
Toluene	0.0500	0.0475	0.0473	95.0	94.6	70.0-130			0.410	20
Ethylbenzene	0.0500	0.0482	0.0487	96.5	97.4	70.0-130			0.980	20
Total Xylene	0.150	0.144	0.146	96.3	97.3	70.0-130			1.02	20
(S) a,a,a-Trifluorotoluene(FID)				*96.4*	*96.7*	*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)				*102*	*102*	*55.0-122*				

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

(LCS) R3163840-3 09/10/16 19:28 • (LCSD) R3163840-4 09/10/16 19:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	5.85	5.89	106	107	67.0-132			0.680	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*103*	*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)				*111*	*110*	*55.0-122*				

L858373-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L858373-01 09/11/16 00:23 • (MS) R3163840-6 09/10/16 22:32 • (MSD) R3163840-7 09/10/16 22:54

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Benzene	0.0500	ND	0.0464	0.0467	92.8	93.4	1	57.2-131			0.730	20
Toluene	0.0500	ND	0.0470	0.0473	92.7	93.3	1	63.7-134			0.600	20
Ethylbenzene	0.0500	ND	0.0479	0.0485	95.4	96.5	1	67.5-135			1.23	20
Total Xylene	0.150	ND	0.143	0.145	94.5	95.8	1	65.9-138			1.36	20
(S) a,a,a-Trifluorotoluene(FID)					*96.0*	*96.7*		*62.0-128*				

L858373-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L858373-01 09/11/16 00:23 • (MS) R3163840-6 09/10/16 22:32 • (MSD) R3163840-7 09/10/16 22:54

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 %
(S) a,a,a-Trifluorotoluene(PID)					*101*	*101*		*55.0-122*				

L858373-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L858373-01 09/11/16 00:23 • (MS) R3163840-8 09/10/16 23:17 • (MSD) R3163840-9 09/10/16 23:39

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	ND	5.48	5.89	99.7	107	1	50.0-143			7.09	20
(S) a,a,a-Trifluorotoluene(FID)					*103*	*103*		*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)					*110*	*110*		*55.0-122*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
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.
(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.
Rec.	Recovery.

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.

ESC Lab Sciences 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.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

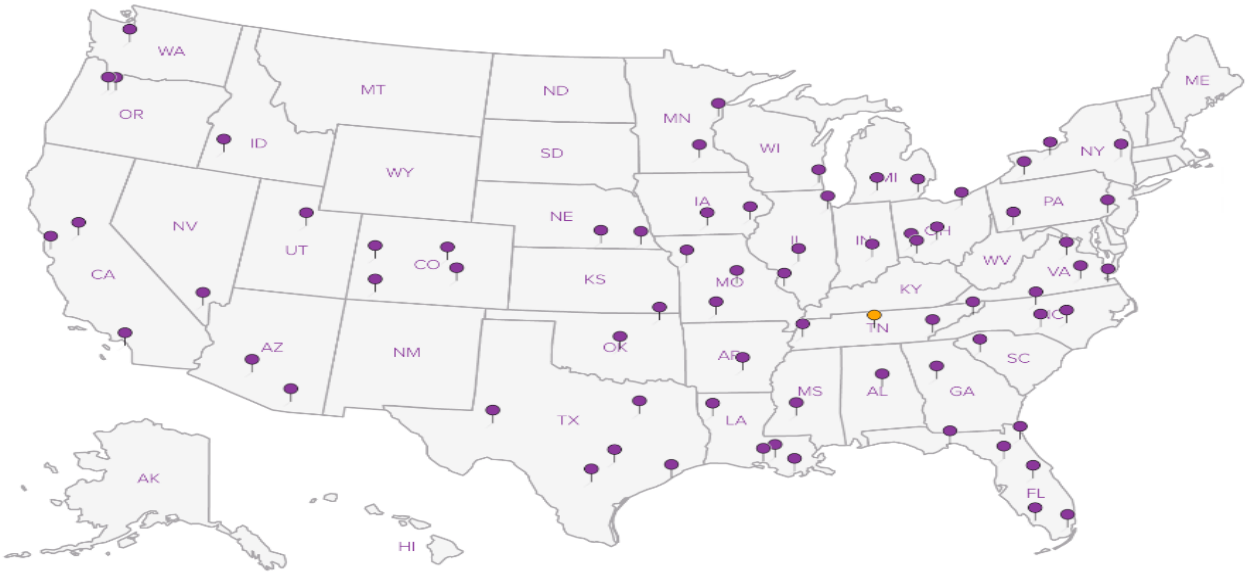
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Olsson Associates
760 Horizon Drive, Suite 102
Grand Junction, CO 81506

Billing Information:

Report to: **Robert Stockton**

Email To: **rstockton@olssonassociates.com**

Project Description: **A14-2069**

City/State Collected: **Cascade Crk.**

Phone: **(970) 263-7800**
Fax:

Client Project # **A14-2069**

Lab Project #

Collected by (print): ~~Robert Stockton~~ KIRK

Site/Facility ID # **Rock Springs**

P.O. #

Collected by (signature): RICHARDS

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX / GRO									Rem./Contaminant	Sample # (lab only)
DS	Grab	GW		09/07/16	1240	6	X										-01
Pond	Grab	GW		09/07/16	1230	6	X										-02
SS	Grab	GW		09/07/16	1210	6	X										-03
RS7	Grab	GW		09/07/16	1145	6	X										-04
RS4	Grab	GW		09/07/16	1025	6	X										-05
RS2	Grab	GW		09/07/16	1120	6	X										-06
RS3	Grab	GW		09/07/16	1055	6	X										-07
RS5	Grab	GW		09/07/16	1015	6	X										-08
RS6	Grab	GW		09/07/16	0930	6	X										-09

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

6827 1102 9951

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9-7-16	4:16pm	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9-7-16	4700	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 3.2 °C Bottles Received: 54 2VR

Date: 9-8-16 Time: 0900

Chain of Custody Page 1 of 1

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L856373
J028

Acctnum:
Template:
Prelogin:
TSR:
Cooler:
Shipped Via:

Hold #

Condition: (lab use only) SW7 a

COC Seal Intact: ___Y ___N ✓NA

pH Checked: NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client:	OLSSONCO	SDG#	L858373
Cooler Received/Opened On:	9/8/16	Temperature Upon Receipt:	3.2 °c
Received By:	Richard Hughes		
Signature:			

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			✓
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?			✓
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			✓
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated. (If yes see attached NCF)			

ANALYTICAL REPORT

November 15, 2016

Olsson Associates - CO

Sample Delivery Group:	L870500
Samples Received:	11/04/2016
Project Number:	A14-2069
Description:	A14-2069
Site:	ROCK SPRINGS
Report To:	Robert Stockton 760 Horizon Drive, Ste 102 Grand Junction, CO 81506

Entire Report Reviewed By:

Shane Gambill
Technical Service Representative

TABLE OF CONTENTS

DS L870500-01 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 09:47 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 00:28	11/11/16 00:28	JAH

POND L870500-02 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 09:55 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 01:56	11/11/16 01:56	JAH

SOUTH SPRING L870500-03 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 10:06 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 02:19	11/11/16 02:19	JAH

RS2 L870500-04 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 10:45 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 02:41	11/11/16 02:41	JAH

RS3 L870500-05 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 11:03 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 03:03	11/11/16 03:03	JAH

RS4 L870500-06 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 10:19 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 03:25	11/11/16 03:25	JAH

RS5 L870500-07 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 11:18 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 03:47	11/11/16 03:47	JAH

RS7 L870500-08 GW

Collected by: Robert Stockton | Collected date/time: 11/03/16 11:54 | Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/11/16 10:49	11/11/16 10:49	LRL

RS9 L870500-09 GW

Collected by: Robert Stockton
Collected date/time: 11/03/16 11:38
Received date/time: 11/04/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015/8021	WG924131	1	11/12/16 23:21	11/12/16 23:21	BMB

All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Shane Gambill
Technical Service Representative

Sample Handling and Receiving

VOC pH outside of method requirement.

ESC Sample ID	Project Sample ID	Method
L870500-09	RS9	8015/8021

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	11/11/2016 00:28	WG924131
Toluene	ND		0.00500	1	11/11/2016 00:28	WG924131
Ethylbenzene	ND		0.000500	1	11/11/2016 00:28	WG924131
Total Xylene	ND		0.00150	1	11/11/2016 00:28	WG924131
TPH (GC/FID) Low Fraction	ND		0.100	1	11/11/2016 00:28	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*97.4*		*62.0-128*		*11/11/2016 00:28*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 00:28*	WG924131

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	11/11/2016 01:56	WG924131
Toluene	ND		0.00500	1	11/11/2016 01:56	WG924131
Ethylbenzene	ND		0.000500	1	11/11/2016 01:56	WG924131
Total Xylene	ND		0.00150	1	11/11/2016 01:56	WG924131
TPH (GC/FID) Low Fraction	ND		0.100	1	11/11/2016 01:56	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*97.9*		*62.0-128*		*11/11/2016 01:56*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 01:56*	WG924131

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.0324		0.000500	1	11/11/2016 02:19	WG924131
Toluene	ND		0.00500	1	11/11/2016 02:19	WG924131
Ethylbenzene	0.00100		0.000500	1	11/11/2016 02:19	WG924131
Total Xylene	0.00619		0.00150	1	11/11/2016 02:19	WG924131
TPH (GC/FID) Low Fraction	0.233	B	0.100	1	11/11/2016 02:19	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*97.1*		*62.0-128*		*11/11/2016 02:19*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 02:19*	WG924131

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00207		0.000500	1	11/11/2016 02:41	WG924131
Toluene	ND		0.00500	1	11/11/2016 02:41	WG924131
Ethylbenzene	ND		0.000500	1	11/11/2016 02:41	WG924131
Total Xylene	ND		0.00150	1	11/11/2016 02:41	WG924131
TPH (GC/FID) Low Fraction	ND		0.100	1	11/11/2016 02:41	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*97.7*		*62.0-128*		*11/11/2016 02:41*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 02:41*	WG924131

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	11/11/2016 03:03	WG924131
Toluene	ND		0.00500	1	11/11/2016 03:03	WG924131
Ethylbenzene	ND		0.000500	1	11/11/2016 03:03	WG924131
Total Xylene	ND		0.00150	1	11/11/2016 03:03	WG924131
TPH (GC/FID) Low Fraction	ND		0.100	1	11/11/2016 03:03	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*98.1*		*62.0-128*		*11/11/2016 03:03*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 03:03*	WG924131

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00128		0.000500	1	11/11/2016 03:25	WG924131
Toluene	ND		0.00500	1	11/11/2016 03:25	WG924131
Ethylbenzene	0.000524		0.000500	1	11/11/2016 03:25	WG924131
Total Xylene	0.00167	B	0.00150	1	11/11/2016 03:25	WG924131
TPH (GC/FID) Low Fraction	ND		0.100	1	11/11/2016 03:25	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*98.0*		*62.0-128*		*11/11/2016 03:25*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 03:25*	WG924131

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	11/11/2016 03:47	WG924131
Toluene	ND		0.00500	1	11/11/2016 03:47	WG924131
Ethylbenzene	ND		0.000500	1	11/11/2016 03:47	WG924131
Total Xylene	ND		0.00150	1	11/11/2016 03:47	WG924131
TPH (GC/FID) Low Fraction	ND		0.100	1	11/11/2016 03:47	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*97.8*		*62.0-128*		*11/11/2016 03:47*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 03:47*	WG924131

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	11/11/2016 10:49	WG924131
Toluene	ND		0.00500	1	11/11/2016 10:49	WG924131
Ethylbenzene	0.000653		0.000500	1	11/11/2016 10:49	WG924131
Total Xylene	0.0101		0.00150	1	11/11/2016 10:49	WG924131
TPH (GC/FID) Low Fraction	0.159	B	0.100	1	11/11/2016 10:49	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*99.1*		*62.0-128*		*11/11/2016 10:49*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*103*		*55.0-122*		*11/11/2016 10:49*	WG924131

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	0.00572		0.000500	1	11/12/2016 23:21	WG924131
Toluene	ND		0.00500	1	11/12/2016 23:21	WG924131
Ethylbenzene	0.0167		0.000500	1	11/12/2016 23:21	WG924131
Total Xylene	0.362		0.00150	1	11/12/2016 23:21	WG924131
TPH (GC/FID) Low Fraction	9.76		0.100	1	11/12/2016 23:21	WG924131
(S) a,a,a-Trifluorotoluene(FID)	*94.1*		*62.0-128*		*11/12/2016 23:21*	WG924131
(S) a,a,a-Trifluorotoluene(PID)	*102*		*55.0-122*		*11/12/2016 23:21*	WG924131

Method Blank (MB)

(MB) R3177499-5 11/10/16 20:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	0.000315	J	0.000180	0.00500
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
TPH (GC/FID) Low Fraction	0.0322	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*62.0-128*
(S) a,a,a-Trifluorotoluene(PID)	*103*			*55.0-122*

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

(LCS) R3177499-1 11/10/16 18:26 • (LCSD) R3177499-2 11/10/16 18:49

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Benzene	0.0500	0.0488	0.0500	97.6	100	70.0-130			2.46	20
Toluene	0.0500	0.0487	0.0492	97.3	98.4	70.0-130			1.08	20
Ethylbenzene	0.0500	0.0484	0.0497	96.8	99.3	70.0-130			2.60	20
Total Xylene	0.150	0.144	0.148	96.3	98.8	70.0-130			2.64	20
(S) a,a,a-Trifluorotoluene(FID)				*96.6*	*97.4*	*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)				*102*	*102*	*55.0-122*				

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

(LCS) R3177499-3 11/10/16 19:11 • (LCSD) R3177499-4 11/10/16 19:33

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	6.18	6.25	112	114	67.0-132			1.19	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*106*	*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)				*112*	*112*	*55.0-122*				

L870500-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L870500-01 11/11/16 00:28 • (MS) R3177499-6 11/10/16 22:37 • (MSD) R3177499-7 11/10/16 22:59

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Benzene	0.0500	ND	0.0493	0.0503	98.5	101	1	57.2-131			2.08	20
Toluene	0.0500	ND	0.0494	0.0496	98.2	98.6	1	63.7-134			0.350	20
Ethylbenzene	0.0500	ND	0.0497	0.0506	99.3	101	1	67.5-135			1.85	20
Total Xylene	0.150	ND	0.145	0.150	96.5	99.7	1	65.9-138			3.26	20
(S) a,a,a-Trifluorotoluene(FID)					*97.0*	*97.6*		*62.0-128*				

L870500-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L870500-01 11/11/16 00:28 • (MS) R3177499-6 11/10/16 22:37 • (MSD) R3177499-7 11/10/16 22:59

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 %
(S) a,a,a-Trifluorotoluene(PID)					*102*	*102*		*55.0-122*				

L870500-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L870500-01 11/11/16 00:28 • (MS) R3177499-8 11/10/16 23:21 • (MSD) R3177499-9 11/10/16 23:43

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	ND	6.13	6.33	111	115	1	50.0-143			3.20	20
(S) a,a,a-Trifluorotoluene(FID)					*105*	*106*		*62.0-128*				
(S) a,a,a-Trifluorotoluene(PID)					*112*	*113*		*55.0-122*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
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.
(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.
Rec.	Recovery.

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.

ESC Lab Sciences 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.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

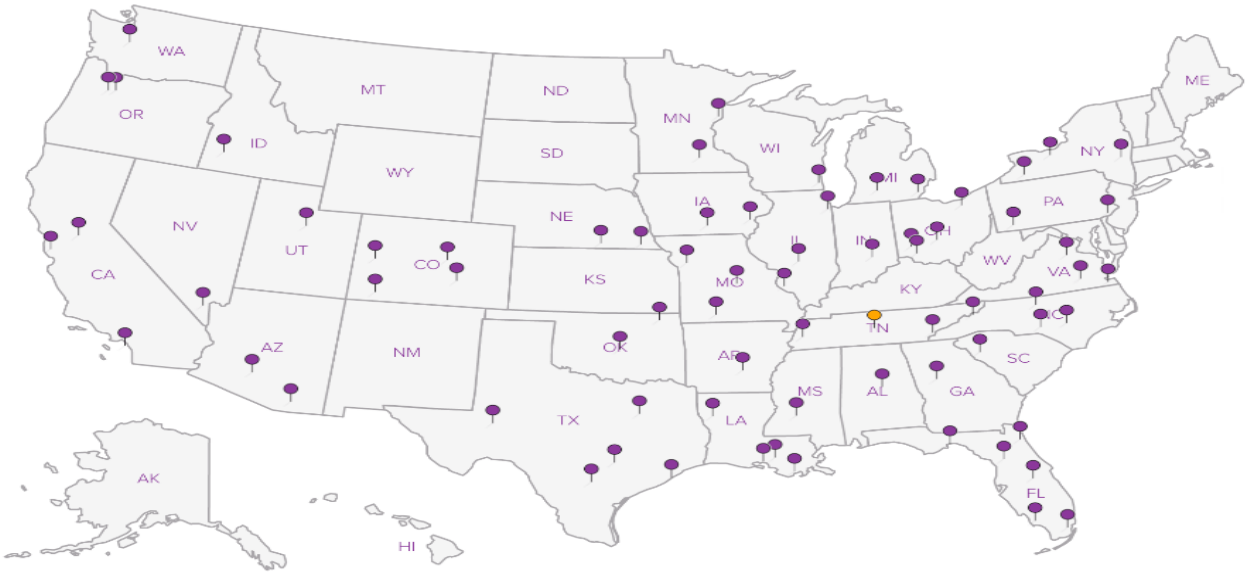
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Olsson Associates
760 Horizon Drive, Suite 102
Grand Junction, CO 81506

Billing Information:

Report to: **Robert Stockton**

Email To: **rstockton@olssonassociates.com**

Project Description: **A14-2069**

City/State Collected: **Cascade Crk.**

Phone: **(970) 263-7800**
Fax:

Client Project # **A14-2069**

Lab Project #

Collected by (print): Robert Stockton

Site/Facility ID # **Rock Springs**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ✓No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L870500
C023

Acctnum:
Template:
Prelogin:
TSR:
Cooler:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX / GRO	Rem./Contaminant	Sample # (lab only)
DS	Grab	GW		11-3-16	0947	4	X		-01
Pond	Grab	GW		11-3-16	0955	4	X		-02
South Spring	Grab	GW		11-3-16	1006	4	X		-03
RS2	Grab	GW		11-3-16	1045	4	X		-04
RS3	Grab	GW		11-3-16	1103	4	X		-05
RS4	Grab	GW		11-3-16	1019	4	X		-06
RS5	Grab	GW		11-3-16	1118	4	X		-07
RS7	Grab	GW		11-3-16	1154	4	X		-08
RS9	Grab	GW		11-3-16	1138	4	X		-09

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11-3-16	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/3/16	1800	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Joseph K

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 3.1 °C Bottles Received: 36 VP

Date: 11-4-16 Time: 900

Condition: (lab use only)

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client:	SDG#	L870500
Cooler Received/Opened On: 11/ 4 /16	Temperature Upon Receipt:	3.1 °c
Received By: Joseph Roberts		
Signature: Joseph R		

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			✓
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	✓		
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated. (If yes see attached NCF)			