



12065 Lebanon Rd.
Mt. Juliet, TN 37122
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Tax I.D. 62-0814289

Est. 1970

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Monday September 29, 2014

Report Number: L723453

Samples Received: 09/24/14

Client Project: 605-2

Description: CWHF

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Mark W. Beasley , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

September 29, 2014

Date Received : September 24, 2014
Description : 605-2
Sample ID : POND
Collected By : Robert Stockton
Collection Date : 09/23/14 14:00

ESC Sample # : L723453-01

Site ID : CWHF

Project # : 605-2

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	BDL	1.0	mg/l	9056MOD	09/24/14	1
Chloride	3.3	1.0	mg/l	9056MOD	09/24/14	1
Fluoride	BDL	0.10	mg/l	9056MOD	09/24/14	1
Nitrate	BDL	0.10	mg/l	9056MOD	09/24/14	1
Nitrite	BDL	0.10	mg/l	9056MOD	09/24/14	1
Sulfate	10.	5.0	mg/l	9056MOD	09/24/14	1
Alkalinity	140	20.	mg/l	2320 B-2011	09/25/14	1
pH	9.0		su	9040C	09/26/14	1
Specific Conductance	280		umhos/cm	9050A	09/27/14	1
Dissolved Solids	280	10.	mg/l	2540 C-2011	09/29/14	1
Selenium,Dissolved	BDL	0.0010	mg/l	6020	09/29/14	1
Calcium,Dissolved	24.	1.0	mg/l	6010B	09/25/14	1
Iron,Dissolved	BDL	0.10	mg/l	6010B	09/25/14	1
Magnesium,Dissolved	14.	1.0	mg/l	6010B	09/25/14	1
Manganese,Dissolved	0.022	0.010	mg/l	6010B	09/25/14	1
Potassium,Dissolved	5.1	1.0	mg/l	6010B	09/25/14	1
Sodium,Dissolved	19.	1.0	mg/l	6010B	09/25/14	1
TPH (GC/FID) Low Fraction	BDL	0.10	mg/l	8015D/GRO	09/27/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.6		% Rec.	8015D/GRO	09/27/14	1
Benzene	BDL	0.0010	mg/l	8260B	09/27/14	1
Toluene	BDL	0.0050	mg/l	8260B	09/27/14	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	09/27/14	1
Total Xylenes	BDL	0.0030	mg/l	8260B	09/27/14	1
Surrogate Recovery						
Toluene-d8	99.4		% Rec.	8260B	09/27/14	1
Dibromofluoromethane	94.5		% Rec.	8260B	09/27/14	1
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	09/27/14	1
4-Bromofluorobenzene	103.		% Rec.	8260B	09/27/14	1
TPH (GC/FID) High Fraction	0.10	0.10	mg/l	3511/8015	09/29/14	1
Surrogate recovery(%) o-Terphenyl	77.3		% Rec.	3511/8015	09/29/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 09/29/14 22:33 Printed: 09/29/14 22:34
L723453-01 (PH) - 9.0@18.3c



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REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

September 29, 2014

Date Received : September 24, 2014
Description : 605-2
Sample ID : DOWNSTREAM
Collected By : Robert Stockton
Collection Date : 09/23/14 15:05

ESC Sample # : L723453-02

Site ID : CWHF

Project # : 605-2

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	BDL	1.0	mg/l	9056MOD	09/24/14	1
Chloride	11.	1.0	mg/l	9056MOD	09/24/14	1
Fluoride	BDL	0.10	mg/l	9056MOD	09/24/14	1
Nitrate	BDL	0.10	mg/l	9056MOD	09/24/14	1
Nitrite	BDL	0.10	mg/l	9056MOD	09/24/14	1
Sulfate	53.	5.0	mg/l	9056MOD	09/24/14	1
Alkalinity	280	20.	mg/l	2320 B-2011	09/25/14	1
pH	8.2		su	9040C	09/26/14	1
Specific Conductance	660		umhos/cm	9050A	09/27/14	1
Dissolved Solids	380	10.	mg/l	2540 C-2011	09/29/14	1
Selenium,Dissolved	0.0010	0.0010	mg/l	6020	09/29/14	1
Calcium,Dissolved	69.	1.0	mg/l	6010B	09/25/14	1
Iron,Dissolved	BDL	0.10	mg/l	6010B	09/25/14	1
Magnesium,Dissolved	28.	1.0	mg/l	6010B	09/25/14	1
Manganese,Dissolved	BDL	0.010	mg/l	6010B	09/25/14	1
Potassium,Dissolved	2.1	1.0	mg/l	6010B	09/25/14	1
Sodium,Dissolved	40.	1.0	mg/l	6010B	09/25/14	1
TPH (GC/FID) Low Fraction	BDL	0.10	mg/l	8015D/GRO	09/25/14	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	97.9		% Rec.	8015D/GRO	09/25/14	1
Benzene	BDL	0.0010	mg/l	8260B	09/27/14	1
Toluene	BDL	0.0050	mg/l	8260B	09/27/14	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	09/27/14	1
Total Xylenes	BDL	0.0030	mg/l	8260B	09/27/14	1
Surrogate Recovery						
Toluene-d8	98.1		% Rec.	8260B	09/27/14	1
Dibromofluoromethane	97.3		% Rec.	8260B	09/27/14	1
a,a,a-Trifluorotoluene	108.		% Rec.	8260B	09/27/14	1
4-Bromofluorobenzene	103.		% Rec.	8260B	09/27/14	1
TPH (GC/FID) High Fraction	BDL	0.10	mg/l	3511/8015	09/29/14	1
Surrogate recovery(%) o-Terphenyl	112.		% Rec.	3511/8015	09/29/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 09/29/14 22:33 Printed: 09/29/14 22:34
L723453-02 (PH) - 8.2@16.4c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L723453-01	WG745100	SAMP	pH	R2993093	T8
L723453-02	WG745100	SAMP	pH	R2993093	T8

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
09/29/14 at 22:34:18

TSR Signing Reports: 134
R4 - Rush: Three Day

Add EDD Log BTEX by 8260 unless otherwise noted

Sample: L723453-01 Account: OXYGJCO Received: 09/24/14 09:00 Due Date: 09/29/14 00:00 RPT Date: 09/29/14 22:33

Sample: L723453-02 Account: OXYGJCO Received: 09/24/14 09:00 Due Date: 09/29/14 00:00 RPT Date: 09/29/14 22:33

OXY USA Inc - Grand Junction, CO

Sample Delivery Group: L769350
Samples Received: 06/05/2015
Project Number: 013-0617
Description: CDA / 605-2

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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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



S. POND OUTLET L769350-01 GW

Collected by
Lilly Griffin

Collected date/time
06/04/15 13:40

Received date/time
06/05/15 09:00

¹ Cp

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG794509	1	06/10/15 14:35	06/11/15 15:54	JG
Mercury by Method 7470A	WG794304	1	06/09/15 00:21	06/09/15 09:36	ESC
Metals (ICP) by Method 6010B	WG794381	1	06/09/15 13:01	06/09/15 15:34	JDG
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG794071	1	06/09/15 10:41	06/11/15 09:30	JNS
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG793969	1	06/11/15 19:22	06/11/15 19:22	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG793928	1	06/07/15 07:09	06/07/15 07:09	MCB
Wet Chemistry by Method 9056MOD	WG794589	1	06/10/15 16:52	06/10/15 16:52	NJM

² Tc

³ Ss

⁴ Cn

⁵ Sr

D. STREAM L769350-02 GW

Collected by
Lilly Griffin

Collected date/time
06/04/15 14:00

Received date/time
06/05/15 09:00

⁶ Qc

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG794509	1	06/10/15 14:35	06/11/15 15:55	JG
Mercury by Method 7470A	WG794304	1	06/09/15 00:21	06/09/15 09:42	ESC
Metals (ICP) by Method 6010B	WG794381	1	06/09/15 13:01	06/09/15 15:50	JDG
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG794071	1	06/09/15 10:41	06/11/15 09:49	JNS
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG793969	1	06/11/15 19:45	06/11/15 19:45	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG793928	1	06/07/15 07:29	06/07/15 07:29	MCB
Wet Chemistry by Method 9056MOD	WG794589	1	06/10/15 17:21	06/10/15 17:21	NJM

⁷ Gl

⁸ Al

⁹ Sc

MCDA L769350-03 GW

Collected by
Lilly Griffin

Collected date/time
06/04/15 14:45

Received date/time
06/05/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG794509	1	06/10/15 14:35	06/11/15 15:55	JG
Mercury by Method 7470A	WG794304	1	06/09/15 00:21	06/09/15 09:44	ESC
Metals (ICP) by Method 6010B	WG794381	1	06/09/15 13:01	06/09/15 15:54	JDG
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG794071	1	06/09/15 10:41	06/11/15 10:08	JNS
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG793969	1	06/11/15 20:09	06/11/15 20:09	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG793928	1	06/07/15 07:49	06/07/15 07:49	MCB
Wet Chemistry by Method 9056MOD	WG794589	1	06/10/15 17:35	06/10/15 17:35	NJM

ACCOUNT:

OXY USA Inc - Grand Junction, CO

PROJECT:

013-0617

SDG:

L769350

DATE/TIME:

06/12/15 13:06

PAGE:

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

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	322		10.0	1	06/11/2015 15:54	WG794509

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Wet Chemistry by Method 9056MOD

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	9.45		1.00	1	06/10/2015 16:52	WG794589
Sulfate	55.8		5.00	1	06/10/2015 16:52	WG794589

6 Qc

7 Gl

8 Al

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	ND		0.000200	1	06/09/2015 09:36	WG794304

9 Sc

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic,Dissolved	ND		0.0200	1	06/09/2015 15:34	WG794381
Barium,Dissolved	0.0930		0.00500	1	06/09/2015 15:34	WG794381
Cadmium,Dissolved	ND		0.00500	1	06/09/2015 15:34	WG794381
Chromium,Dissolved	ND		0.0100	1	06/09/2015 15:34	WG794381
Copper,Dissolved	ND		0.0200	1	06/09/2015 15:34	WG794381
Lead,Dissolved	ND		0.00500	1	06/09/2015 15:34	WG794381
Nickel,Dissolved	ND		0.0200	1	06/09/2015 15:34	WG794381
Selenium,Dissolved	ND		0.0200	1	06/09/2015 15:34	WG794381
Silver,Dissolved	ND		0.0100	1	06/09/2015 15:34	WG794381
Zinc,Dissolved	ND		0.0500	1	06/09/2015 15:34	WG794381

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	06/11/2015 19:22	WG793969
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.8		62.0-128		06/11/2015 19:22	WG793969

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	06/07/2015 07:09	WG793928
Toluene	ND		0.00500	1	06/07/2015 07:09	WG793928
Ethylbenzene	ND		0.00100	1	06/07/2015 07:09	WG793928
Total Xylenes	ND		0.00300	1	06/07/2015 07:09	WG793928
(S) <i>Toluene-d8</i>	102		90.0-115		06/07/2015 07:09	WG793928
(S) <i>Dibromofluoromethane</i>	96.9		79.0-121		06/07/2015 07:09	WG793928
(S) <i>a,a,a</i> -Trifluorotoluene	101		90.4-116		06/07/2015 07:09	WG793928
(S) <i>4</i> -Bromofluorobenzene	90.4		80.1-120		06/07/2015 07:09	WG793928

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	06/11/2015 09:30	WG794071
(S) <i>o</i> -Terphenyl	105		50.0-150		06/11/2015 09:30	WG794071



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	339		10.0	1	06/11/2015 15:55	WG794509

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 9056MOD

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	9.91		1.00	1	06/10/2015 17:21	WG794589
Sulfate	47.5		5.00	1	06/10/2015 17:21	WG794589

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	ND		0.000200	1	06/09/2015 09:42	WG794304

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic,Dissolved	ND		0.0200	1	06/09/2015 15:50	WG794381
Barium,Dissolved	0.111		0.00500	1	06/09/2015 15:50	WG794381
Cadmium,Dissolved	ND		0.00500	1	06/09/2015 15:50	WG794381
Chromium,Dissolved	ND		0.0100	1	06/09/2015 15:50	WG794381
Copper,Dissolved	ND		0.0200	1	06/09/2015 15:50	WG794381
Lead,Dissolved	ND		0.00500	1	06/09/2015 15:50	WG794381
Nickel,Dissolved	ND		0.0200	1	06/09/2015 15:50	WG794381
Selenium,Dissolved	ND		0.0200	1	06/09/2015 15:50	WG794381
Silver,Dissolved	ND		0.0100	1	06/09/2015 15:50	WG794381
Zinc,Dissolved	ND		0.0500	1	06/09/2015 15:50	WG794381

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	06/11/2015 19:45	WG793969
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.3		62.0-128		06/11/2015 19:45	WG793969

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	06/07/2015 07:29	WG793928
Toluene	ND		0.00500	1	06/07/2015 07:29	WG793928
Ethylbenzene	ND		0.00100	1	06/07/2015 07:29	WG793928
Total Xylenes	ND		0.00300	1	06/07/2015 07:29	WG793928
(S) <i>Toluene-d8</i>	101		90.0-115		06/07/2015 07:29	WG793928
(S) <i>Dibromofluoromethane</i>	97.5		79.0-121		06/07/2015 07:29	WG793928
(S) <i>a,a,a</i> -Trifluorotoluene	100		90.4-116		06/07/2015 07:29	WG793928
(S) <i>4</i> -Bromofluorobenzene	87.9		80.1-120		06/07/2015 07:29	WG793928

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	06/11/2015 09:49	WG794071
(S) <i>o</i> -Terphenyl	110		50.0-150		06/11/2015 09:49	WG794071



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	431		10.0	1	06/11/2015 15:55	WG794509

1 Cp

2 Tc

Wet Chemistry by Method 9056MOD

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	18.9		1.00	1	06/10/2015 17:35	WG794589
Sulfate	70.2		5.00	1	06/10/2015 17:35	WG794589

3 Ss

4 Cn

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	ND		0.000200	1	06/09/2015 09:44	WG794304

5 Sr

6 Qc

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic,Dissolved	ND		0.0200	1	06/09/2015 15:54	WG794381
Barium,Dissolved	0.0869		0.00500	1	06/09/2015 15:54	WG794381
Cadmium,Dissolved	ND		0.00500	1	06/09/2015 15:54	WG794381
Chromium,Dissolved	ND		0.0100	1	06/09/2015 15:54	WG794381
Copper,Dissolved	ND		0.0200	1	06/09/2015 15:54	WG794381
Lead,Dissolved	ND		0.00500	1	06/09/2015 15:54	WG794381
Nickel,Dissolved	ND		0.0200	1	06/09/2015 15:54	WG794381
Selenium,Dissolved	ND		0.0200	1	06/09/2015 15:54	WG794381
Silver,Dissolved	ND		0.0100	1	06/09/2015 15:54	WG794381
Zinc,Dissolved	ND		0.0500	1	06/09/2015 15:54	WG794381

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	06/11/2015 20:09	WG793969
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	97.6		62.0-128		06/11/2015 20:09	WG793969

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	06/07/2015 07:49	WG793928
Toluene	ND		0.00500	1	06/07/2015 07:49	WG793928
Ethylbenzene	ND		0.00100	1	06/07/2015 07:49	WG793928
Total Xylenes	ND		0.00300	1	06/07/2015 07:49	WG793928
(S) <i>Toluene-d8</i>	102		90.0-115		06/07/2015 07:49	WG793928
(S) <i>Dibromofluoromethane</i>	97.4		79.0-121		06/07/2015 07:49	WG793928
(S) <i>a,a,a</i> -Trifluorotoluene	102		90.4-116		06/07/2015 07:49	WG793928
(S) <i>4</i> -Bromofluorobenzene	89.1		80.1-120		06/07/2015 07:49	WG793928

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	06/11/2015 10:08	WG794071
(S) <i>o</i> -Terphenyl	105		50.0-150		06/11/2015 10:08	WG794071



Method Blank (MB)

(MB) 06/11/15 15:59

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Dissolved Solids	ND		10.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L769350-01 Original Sample (OS) • Duplicate (DUP)

(OS) 06/11/15 15:54 • (DUP) 06/11/15 15:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	322	319	1	0.936		5

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

(LCS) 06/11/15 15:53 • (LCSD) 06/11/15 15:54

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 %
Dissolved Solids	8800	8350	8340	94.9	94.8	85.0-115			0.120	5



Method Blank (MB)

(MB) 06/10/15 14:04

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
Chloride	ND		1.00
Sulfate	ND		5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L769350-01 Original Sample (OS) • Duplicate (DUP)

(OS) 06/10/15 16:52 • (DUP) 06/10/15 17:06

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	9.45	9.77	1	3		20
Sulfate	55.8	55.7	1	0		20

L769244-02 Original Sample (OS) • Duplicate (DUP)

(OS) 06/10/15 20:57 • (DUP) 06/10/15 21:11

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	128	117	2	9		20
Sulfate	21.3	20.9	2	2		20

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

(LCS) 06/10/15 14:19 • (LCSD) 06/10/15 14:33

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Chloride	40.0	40.0	40.0	100	100	90-110			0	20
Sulfate	40.0	40.6	40.5	101	101	90-110			0	20

L769368-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/10/15 15:40 • (MS) 06/10/15 15:54 • (MSD) 06/10/15 16:09

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	14.6	65.9	59.7	103	90	1	80-120			10	20
Sulfate	50.0	33.3	81.2	81.9	96	97	1	80-120			1	20

Method Blank (MB)

(MB) 06/09/15 09:22

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB RDL mg/l
Mercury,Dissolved	ND		0.000200

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) 06/09/15 09:24 • (LCSD) 06/09/15 09:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	0.00295	0.00280	98	93	80-120			5	20

L769409-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/09/15 09:29 • (MS) 06/09/15 09:31 • (MSD) 06/09/15 09:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	ND	0.00305	0.00298	102	99	1	75-125			2	20



Method Blank (MB)

(MB) 06/09/15 15:20

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Arsenic,Dissolved	ND		0.0200
Barium,Dissolved	ND		0.00500
Cadmium,Dissolved	ND		0.00500
Chromium,Dissolved	ND		0.0100
Copper,Dissolved	ND		0.0200
Lead,Dissolved	ND		0.00500
Nickel,Dissolved	ND		0.0200
Selenium,Dissolved	ND		0.0200
Silver,Dissolved	ND		0.0100
Zinc,Dissolved	ND		0.0500

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) 06/09/15 15:25 • (LCSD) 06/09/15 15:29

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 %
Arsenic,Dissolved	1.00	1.04	1.04	104	104	80-120			0	20
Barium,Dissolved	1.00	1.06	1.06	106	106	80-120			0	20
Cadmium,Dissolved	1.00	1.02	1.02	102	102	80-120			0	20
Chromium,Dissolved	1.00	1.07	1.06	107	106	80-120			1	20
Copper,Dissolved	1.00	0.978	0.975	98	98	80-120			0	20
Lead,Dissolved	1.00	1.04	1.04	104	104	80-120			1	20
Nickel,Dissolved	1.00	1.01	1.00	101	100	80-120			1	20
Selenium,Dissolved	1.00	1.08	1.06	108	106	80-120			2	20
Silver,Dissolved	1.00	1.03	1.03	103	103	80-120			0	20
Zinc,Dissolved	1.00	0.993	0.991	99	99	80-120			0	20

L769350-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/09/15 15:34 • (MS) 06/09/15 15:42 • (MSD) 06/09/15 15:46

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 %
Arsenic,Dissolved	1.00	ND	1.08	1.07	108	107	1	75-125			1	20
Barium,Dissolved	1.00	0.0930	1.16	1.15	106	106	1	75-125			0	20
Cadmium,Dissolved	1.00	ND	1.03	1.02	103	102	1	75-125			1	20
Chromium,Dissolved	1.00	0.000191	1.09	1.08	109	108	1	75-125			0	20
Copper,Dissolved	1.00	0.00101	1.00	1.00	100	100	1	75-125			0	20
Lead,Dissolved	1.00	0.00196	1.04	1.04	104	104	1	75-125			1	20



L769350-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/09/15 15:34 • (MS) 06/09/15 15:42 • (MSD) 06/09/15 15:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Nickel,Dissolved	1.00	0.00586	1.03	1.02	102	102	1	75-125			0	20
Selenium,Dissolved	1.00	ND	1.13	1.13	113	113	1	75-125			0	20
Silver,Dissolved	1.00	0.000394	1.04	1.03	104	103	1	75-125			0	20
Zinc,Dissolved	1.00	0.00455	1.01	1.01	101	100	1	75-125			1	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) 06/11/15 17:48

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
TPH (GC/FID) Low Fraction	ND		0.100
(S) a,a,a-Trifluorotoluene(FID)	98.2		62.0-128

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) 06/11/15 16:38 • (LCSD) 06/11/15 17:01

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	5.29	5.79	96.2	105	67.0-132			9.07	20
(S) a,a,a-Trifluorotoluene(FID)				95.9	95.0	62.0-128				

L769350-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/11/15 19:22 • (MS) 06/11/15 18:12 • (MSD) 06/11/15 18:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	ND	6.34	5.76	115	105	1	50.0-143			9.59	20
(S) a,a,a-Trifluorotoluene(FID)					95.4	95.7		62.0-128				



Method Blank (MB)

(MB) 06/07/15 05:43

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	95.2		79.0-121
(S) a,a,a-Trifluorotoluene	103		90.4-116
(S) 4-Bromofluorobenzene	89.1		80.1-120

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) 06/07/15 04:24 • (LCSD) 06/07/15 04:44

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	0.0201	0.0217	80.6	86.6	73.0-122			7.22	20
Ethylbenzene	0.0250	0.0204	0.0223	81.4	89.4	80.9-121			9.32	20
Toluene	0.0250	0.0203	0.0216	81.0	86.5	77.9-116			6.52	20
Xylenes, Total	0.0750	0.0606	0.0659	80.8	87.8	79.2-122			8.31	20
(S) Toluene-d8				101	102	90.0-115				
(S) Dibromofluoromethane				96.4	95.2	79.0-121				
(S) a,a,a-Trifluorotoluene				101	102	90.4-116				
(S) 4-Bromofluorobenzene				89.2	90.4	80.1-120				

L769350-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 06/07/15 07:09 • (MS) 06/07/15 06:10 • (MSD) 06/07/15 06:30

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	0.0202	0.0177	80.9	71.0	1	58.6-133			13.0	20
Ethylbenzene	0.0250	ND	0.0200	0.0175	80.1	70.1	1	62.7-136			13.3	20
Toluene	0.0250	ND	0.0200	0.0174	80.0	69.7	1	67.8-124			13.7	20
Xylenes, Total	0.0750	ND	0.0596	0.0522	79.4	69.6	1	65.6-133			13.1	20
(S) Toluene-d8					102	102		90.0-115				
(S) Dibromofluoromethane					98.4	99.4		79.0-121				
(S) a,a,a-Trifluorotoluene					101	101		90.4-116				
(S) 4-Bromofluorobenzene					89.6	89.6		80.1-120				



Method Blank (MB)

(MB) 06/10/15 17:59

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
TPH (GC/FID) High Fraction	ND		0.100
(S) o-Terphenyl	109		50.0-150

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) 06/10/15 18:18 • (LCSD) 06/10/15 18:37

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) High Fraction	1.50	1.62	1.65	108	110	50.0-150			2.09	20
(S) o-Terphenyl				126	121	50.0-150				



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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



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**.

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
Connecticut	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 ¹⁴	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		

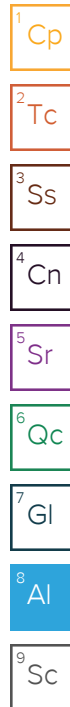
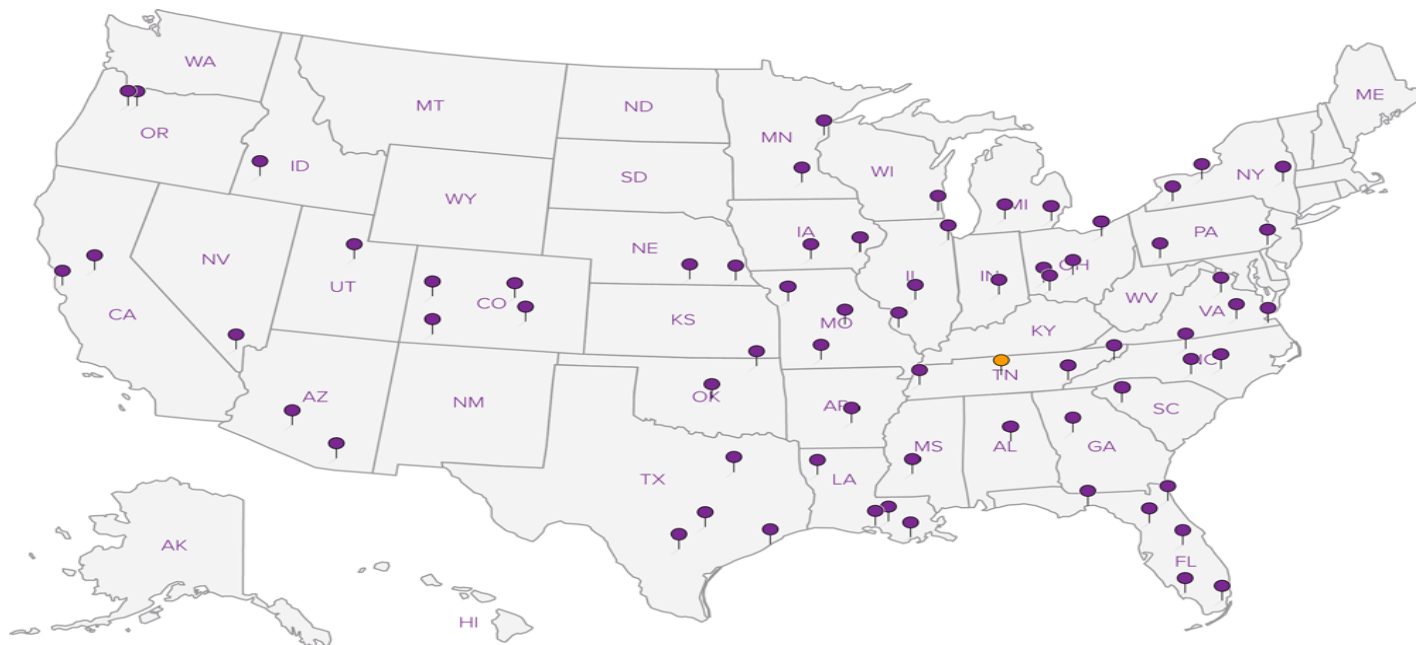
¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Third Party & Federal Accreditations

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

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.**



[illegible]

OXY USA Inc - Grand Junction, CO

Sample Delivery Group: L790947
Samples Received: 09/25/2015
Project Number: 014-2804
Description: 605-2

Report To: Blair Rollins
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Entire Report Reviewed By:



Chris McCord
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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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



POND L790947-01 GW

Collected by
Robert Stockton

Collected date/time
09/23/15 15:01

Received date/time
09/25/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG817931	1	09/28/15 15:47	09/29/15 17:08	MF
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG818040	1	09/28/15 10:44	09/29/15 18:37	JNS
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG818395	1	09/30/15 04:30	09/30/15 04:30	MCB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819227	1	10/04/15 02:55	10/04/15 02:55	KLO
Wet Chemistry by Method 9056MOD	WG818738	1	10/02/15 12:52	10/02/15 12:52	DJD

¹ Cp

² Tc

³ Ss

⁴ Cn

DOWNSTREAM L790947-02 GW

Collected by
Robert Stockton

Collected date/time
09/23/15 14:43

Received date/time
09/25/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG817931	1	09/28/15 15:47	09/29/15 17:04	MF
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG818040	1	09/28/15 10:44	09/29/15 18:19	JNS
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG818395	1	09/29/15 19:34	09/29/15 19:34	MCB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG819227	1	10/04/15 03:18	10/04/15 03:18	KLO
Wet Chemistry by Method 9056MOD	WG818738	1	10/02/15 13:39	10/02/15 13:39	DJD

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCOUNT:

OXY USA Inc - Grand Junction, CO

PROJECT:

014-2804

SDG:

L790947

DATE/TIME:

10/05/15 20:28

PAGE:

3 of 15



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.

Chris McCord
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	430		10.0	1	09/29/2015 17:08	WG817931

Wet Chemistry by Method 9056MOD

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	10.3		1.00	1	10/02/2015 12:52	WG818738
Sulfate	36.2		5.00	1	10/02/2015 12:52	WG818738

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

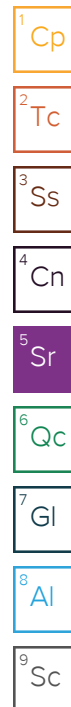
Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	09/30/2015 04:30	WG818395
(S) a,a,a-Trifluorotoluene(FID)	98.5		62.0-128		09/30/2015 04:30	WG818395

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	10/04/2015 02:55	WG819227
Toluene	ND		0.00500	1	10/04/2015 02:55	WG819227
Ethylbenzene	ND		0.00100	1	10/04/2015 02:55	WG819227
Total Xylenes	ND		0.00300	1	10/04/2015 02:55	WG819227
(S) Toluene-d8	103		90.0-115		10/04/2015 02:55	WG819227
(S) Dibromofluoromethane	102		79.0-121		10/04/2015 02:55	WG819227
(S) a,a,a-Trifluorotoluene	102		90.4-116		10/04/2015 02:55	WG819227
(S) 4-Bromofluorobenzene	99.6		80.1-120		10/04/2015 02:55	WG819227

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) High Fraction	0.297		0.100	1	09/29/2015 18:37	WG818040
(S) o-Terphenyl	100		50.0-150		09/29/2015 18:37	WG818040





Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	385		10.0	1	09/29/2015 17:04	WG817931

Wet Chemistry by Method 9056MOD

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	16.4		1.00	1	10/02/2015 13:39	WG818738
Sulfate	44.7		5.00	1	10/02/2015 13:39	WG818738

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	09/29/2015 19:34	WG818395
(S) a,a,a-Trifluorotoluene(FID)	99.2		62.0-128		09/29/2015 19:34	WG818395

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	10/04/2015 03:18	WG819227
Toluene	ND		0.00500	1	10/04/2015 03:18	WG819227
Ethylbenzene	ND		0.00100	1	10/04/2015 03:18	WG819227
Total Xylenes	ND		0.00300	1	10/04/2015 03:18	WG819227
(S) Toluene-d8	103		90.0-115		10/04/2015 03:18	WG819227
(S) Dibromofluoromethane	101		79.0-121		10/04/2015 03:18	WG819227
(S) a,a,a-Trifluorotoluene	101		90.4-116		10/04/2015 03:18	WG819227
(S) 4-Bromofluorobenzene	100		80.1-120		10/04/2015 03:18	WG819227

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) High Fraction	ND		0.100	1	09/29/2015 18:19	WG818040
(S) o-Terphenyl	100		50.0-150		09/29/2015 18:19	WG818040

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) 09/29/15 17:08

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
Dissolved Solids	ND		10.0

L790947-02 Original Sample (OS) • Duplicate (DUP)

(OS) 09/29/15 17:04 • (DUP) 09/29/15 17:04

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	385	382	1	0.782		5

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

(LCS) 09/29/15 17:05 • (LCSD) 09/29/15 17:05

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Dissolved Solids	8800	8640	8720	98.2	99.1	85.0-115			0.922	5

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) 10/02/15 08:45

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
Chloride	ND		1.00
Sulfate	ND		5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L790929-02 Original Sample (OS) • Duplicate (DUP)

(OS) 10/02/15 10:03 • (DUP) 10/02/15 10:18

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	2130	2130	100	0		20
Sulfate	60.5	60.1	100	0		20

L790951-09 Original Sample (OS) • Duplicate (DUP)

(OS) 10/02/15 16:32 • (DUP) 10/02/15 16:47

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	4600	4620	100	0		20
Sulfate	3090	3030	100	2		20

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

(LCS) 10/02/15 09:01 • (LCSD) 10/02/15 09:16

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Chloride	40.0	38.4	38.5	96	96	90-110			0	20
Sulfate	40.0	39.2	39.2	98	98	90-110			0	20

L790929-03 Original Sample (OS) • Matrix Spike (MS)

(OS) 10/02/15 10:33 • (MS) 10/02/15 10:49

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	0.500	3400	8270	97	100	80-120	
Sulfate	0.500	112	4930	96	100	80-120	



L790951-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/02/15 15:42 • (MS) 10/02/15 16:17 • (MSD) 10/02/15 15:57

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Chloride	0.500	6290	11200	11100	99	96	100	80-120			1	20
Sulfate	0.500	13.9	4930	4730	98	94	100	80-120			4	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) 09/29/15 13:12

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)	99.2		62.0-128

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

(LCS) 09/29/15 11:41 • (LCSD) 09/29/15 12:03

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	5.70	5.69	104	104	67.0-132			0.190	20
(S) a,a,a-Trifluorotoluene(FID)				99.1	99.4	62.0-128				

L790947-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 09/29/15 19:34 • (MS) 09/29/15 15:53 • (MSD) 09/29/15 16:15

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	4.84	5.10	88.1	92.8	1	50.0-143			5.24	20
(S) a,a,a-Trifluorotoluene(FID)					98.5	97.6		62.0-128				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) 10/03/15 22:21

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	103		90.0-115
(S) Dibromofluoromethane	103		79.0-121
(S) a,a,a-Trifluorotoluene	101		90.4-116
(S) 4-Bromofluorobenzene	102		80.1-120

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) 10/03/15 21:12 • (LCSD) 10/03/15 21:35

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	0.0259	0.0275	104	110	73.0-122			5.79	20
Ethylbenzene	0.0250	0.0265	0.0280	106	112	80.9-121			5.35	20
Toluene	0.0250	0.0255	0.0264	102	106	77.9-116			3.49	20
Xylenes, Total	0.0750	0.0809	0.0844	108	113	79.2-122			4.32	20
(S) Toluene-d8				99.8	99.4	90.0-115				
(S) Dibromofluoromethane				101	103	79.0-121				
(S) a,a,a-Trifluorotoluene				99.2	99.0	90.4-116				
(S) 4-Bromofluorobenzene				101	102	80.1-120				



Method Blank (MB)

(MB) 09/29/15 12:42

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
TPH (GC/FID) High Fraction	ND		0.100
(S) o-Terphenyl	95.8		50.0-150

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) 09/29/15 13:00 • (LCSD) 09/29/15 13:18

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) High Fraction	1.50	1.39	1.40	92.9	93.4	50.0-150			0.440	20
(S) o-Terphenyl				101	102	50.0-150				



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

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



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**.

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
Connecticut	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 ¹⁴	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		

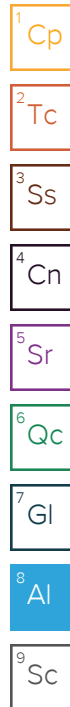
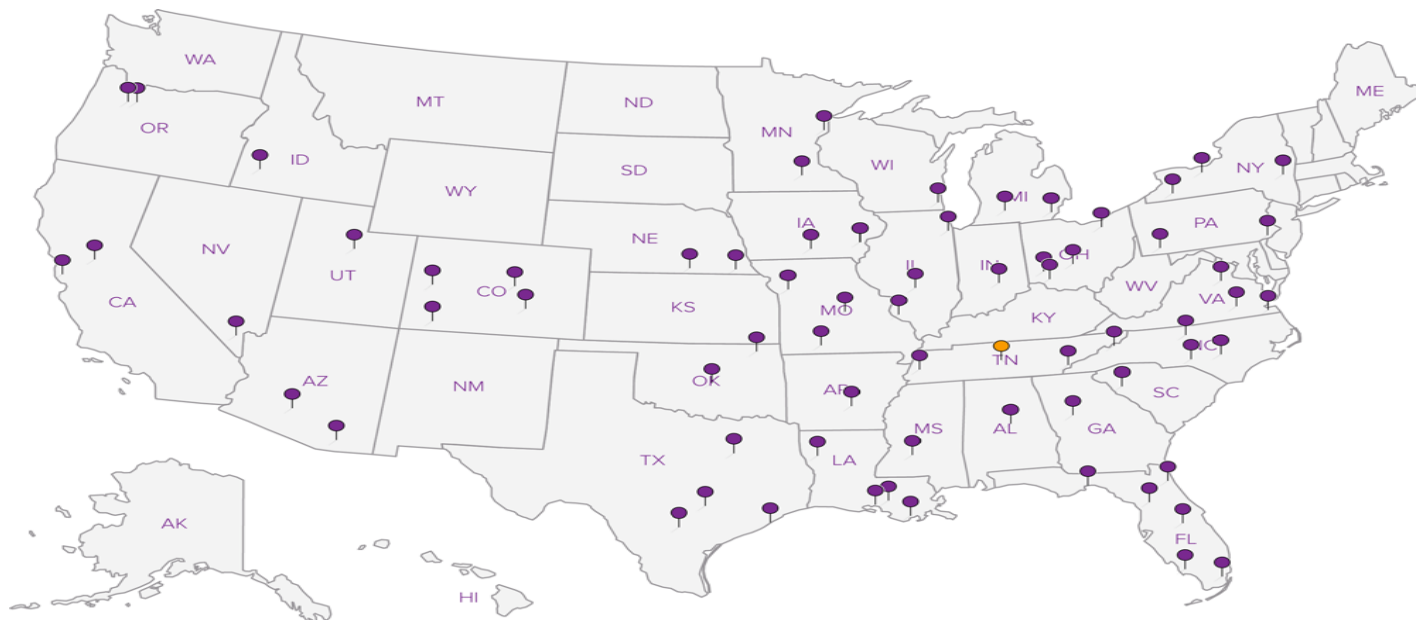
¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Third Party & Federal Accreditations

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

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.**



OXY USA Inc - Grand Junction, CO

Sample Delivery Group: L808170
Samples Received: 12/19/2015
Project Number: 014-2804
Description: 605-2
Site: 605-2
Report To: Blair Rollins
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Entire Report Reviewed By:



Shane Gambill

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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⁸Al: Accreditations & Locations	11
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605-02 POND L808170-01 GW

Collected by
Chance HolderCollected date/time
12/17/15 13:00Received date/time
12/19/15 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG837562	1	12/22/15 13:33	12/24/15 14:06	BJF
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG837160	1	12/24/15 18:36	12/24/15 18:36	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG837960	1	12/26/15 01:39	12/26/15 01:39	BMB

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

605-02 DOWNSTREAM L808170-02 GW

Collected by
Chance HolderCollected date/time
12/17/15 13:15Received date/time
12/19/15 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG837562	1	12/22/15 13:33	12/23/15 17:07	JNS
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG837160	1	12/24/15 20:23	12/24/15 20:23	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG837960	1	12/26/15 01:59	12/26/15 01:59	BMB



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

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	12/24/2015 18:36	WG837160
(S) a,a,a-Trifluorotoluene(FID)	101		62.0-128		12/24/2015 18:36	WG837160

1 Cp

2 Tc

3 Ss

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	12/26/2015 01:39	WG837960
Toluene	ND		0.00500	1	12/26/2015 01:39	WG837960
Ethylbenzene	ND		0.00100	1	12/26/2015 01:39	WG837960
Total Xylenes	ND		0.00300	1	12/26/2015 01:39	WG837960
(S) Toluene-d8	98.4		90.0-115		12/26/2015 01:39	WG837960
(S) Dibromofluoromethane	94.5		79.0-121		12/26/2015 01:39	WG837960
(S) a,a,a-Trifluorotoluene	102		90.4-116		12/26/2015 01:39	WG837960
(S) 4-Bromofluorobenzene	105		80.1-120		12/26/2015 01:39	WG837960

4 Cn

5 Sr

6 Qc

7 Gl

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.271		0.100	1	12/24/2015 14:06	WG837562
(S) o-Terphenyl	91.6		50.0-150		12/24/2015 14:06	WG837562

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	12/24/2015 20:23	WG837160
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128		12/24/2015 20:23	WG837160

1 Cp

2 Tc

3 Ss

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	12/26/2015 01:59	WG837960
Toluene	ND		0.00500	1	12/26/2015 01:59	WG837960
Ethylbenzene	ND		0.00100	1	12/26/2015 01:59	WG837960
Total Xylenes	ND		0.00300	1	12/26/2015 01:59	WG837960
(S) Toluene-d8	98.3		90.0-115		12/26/2015 01:59	WG837960
(S) Dibromofluoromethane	94.8		79.0-121		12/26/2015 01:59	WG837960
(S) a,a,a-Trifluorotoluene	103		90.4-116		12/26/2015 01:59	WG837960
(S) 4-Bromofluorobenzene	105		80.1-120		12/26/2015 01:59	WG837960

4 Cn

5 Sr

6 Qc

7 Gl

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	12/23/2015 17:07	WG837562
(S) o-Terphenyl	92.6		50.0-150		12/23/2015 17:07	WG837562

8 Al

9 Sc



Method Blank (MB)

(MB) 12/24/15 15:00

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
TPH (GC/FID) Low Fraction	ND		0.100
(S) a,a,a-Trifluorotoluene(FID)	102		62.0-128

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) 12/24/15 13:56 • (LCSD) 12/24/15 14:17

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	5.76	5.82	105	106	67.0-132			1.05	20
(S) a,a,a-Trifluorotoluene(FID)				104	104	62.0-128				

L808169-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/24/15 18:14 • (MS) 12/24/15 19:40 • (MSD) 12/24/15 20:02

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	0.0211	5.36	5.84	97.1	106	1	50.0-143			8.51	20
(S) a,a,a-Trifluorotoluene(FID)					102	103		62.0-128				



Method Blank (MB)

(MB) 12/25/15 21:41

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	96.9		90.0-115
(S) Dibromofluoromethane	94.4		79.0-121
(S) a,a,a-Trifluorotoluene	105		90.4-116
(S) 4-Bromofluorobenzene	103		80.1-120

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) 12/25/15 20:19 • (LCSD) 12/25/15 20:39

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	0.0231	0.0216	92.3	86.3	73.0-122			6.69	20
Ethylbenzene	0.0250	0.0265	0.0247	106	98.6	80.9-121			7.36	20
Toluene	0.0250	0.0239	0.0221	95.7	88.2	77.9-116			8.09	20
Xylenes, Total	0.0750	0.0790	0.0735	105	98.1	79.2-122			7.14	20
(S) Toluene-d8				97.8	97.0	90.0-115				
(S) Dibromofluoromethane				91.4	92.9	79.0-121				
(S) a,a,a-Trifluorotoluene				105	103	90.4-116				
(S) 4-Bromofluorobenzene				99.5	99.4	80.1-120				

L808138-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/26/15 00:58 • (MS) 12/25/15 23:36 • (MSD) 12/25/15 23:56

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	0.000235	0.0218	0.0227	86.1	90.0	1	58.6-133			4.33	20
Ethylbenzene	0.0250	0.00558	0.0292	0.0304	94.3	99.3	1	62.7-136			4.19	20
Toluene	0.0250	0.00255	0.0240	0.0251	85.9	90.3	1	67.8-124			4.50	20
Xylenes, Total	0.0750	0.0613	0.121	0.126	79.2	86.6	1	65.6-133			4.52	20
(S) Toluene-d8					98.9	99.0		90.0-115				
(S) Dibromofluoromethane					92.7	94.1		79.0-121				
(S) a,a,a-Trifluorotoluene					107	106		90.4-116				
(S) 4-Bromofluorobenzene					103	100		80.1-120				



Method Blank (MB)

(MB) 12/23/15 15:03

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
TPH (GC/FID) High Fraction	ND		0.100
(S) o-Terphenyl	82.0		50.0-150

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) 12/23/15 15:21 • (LCSD) 12/23/15 15:39

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) High Fraction	1.50	1.38	1.40	92.1	93.5	50.0-150			1.55	20
(S) o-Terphenyl				93.4	95.2	50.0-150				



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

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



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
Connecticut	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 ¹⁴	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		

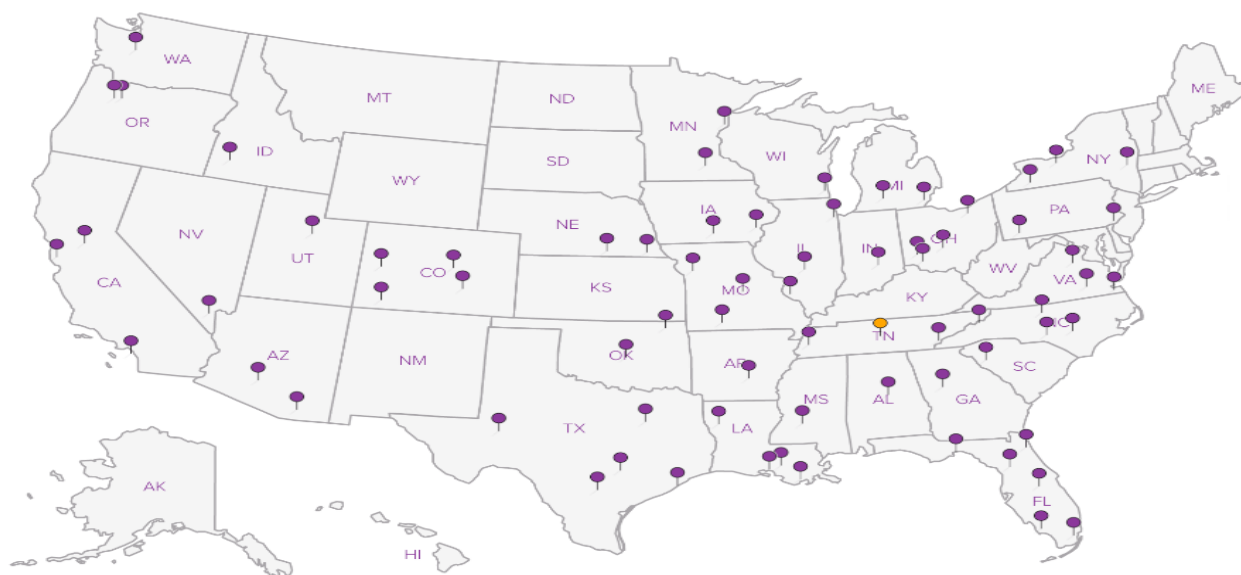
Third Party & Federal Accreditations




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: OXY USA Inc. 760 Horizon Drive, Suite 101 Grand Junction, CO 81506				Billing Information: 				Analysis / Container / Preservative										Chain of Custody Page <u>1</u> of <u>1</u>  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 # <u>L808180</u> <div style="border: 1px solid black; padding: 5px; display: inline-block; font-weight: bold;">G241</div> Acctnum: Template: Prelogin: TSR: Cooler: Shipped Via: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Rem./Contaminant</th> <th style="width: 50%;">Sample # (lab only)</th> </tr> <tr> <td></td> <td style="text-align: center;">-01</td> </tr> <tr> <td></td> <td style="text-align: center;">02</td> </tr> </table>		Rem./Contaminant	Sample # (lab only)		-01		02
Rem./Contaminant	Sample # (lab only)																								
	-01																								
	02																								
Report to: Blair Rollins				Email To: blair_rollins@oxy.com				<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">V8260BTEX (2 - 40ml vials w/ HCL)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">GRO (2 - 40ml vials w/ HCL)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">DROLVI (2 - 40ml vials w/ HCL)</div> </div>																	
Project Description: 605-2		City/State Collected: CO		Lab Project #																					
Phone: (970) 263-7800 Fax:		Client Project # 014-2804		P.O. #																					
Collected by (print): Chance Holder		Site/Facility ID # 605-2		Date Results Needed																					
Collected by (signature):  Immediately Packed on Ice N <u> </u> Y <u> </u> <input checked="" type="checkbox"/>		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%		Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes																					
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs																		
605-02 Pond		Grab	GW		12/17/2015	1:00	6																		
605-02 Downstream		Grab	GW		12/17/2015	1:15	6																		

OXY USA Inc - Grand Junction, CO

Sample Delivery Group: L808765
Samples Received: 12/23/2015
Project Number: 014-2804
Description: 605-2
Site: 605-2
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.



¹ Cp: Cover Page	1	¹ Cp
² Tc: Table of Contents	2	² Tc
³ Ss: Sample Summary	3	³ Ss
⁴ Cn: Case Narrative	4	⁴ Cn
⁵ Sr: Sample Results	5	⁵ Sr
605-2 POND L808765-01	5	
605-2 DOWNSTREAM L808765-02	6	
⁶ Qc: Quality Control Summary	7	⁶ Qc
Gravimetric Analysis by Method 2540 C-2011	7	
Wet Chemistry by Method 9056A	8	
⁷ Gl: Glossary of Terms	10	⁷ Gl
⁸ Al: Accreditations & Locations	11	⁸ Al
⁹ Sc: Chain of Custody	12	⁹ Sc



605-2 POND L808765-01 GW

Collected by
Robert StocktonCollected date/time
12/21/15 13:10Received date/time
12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG838377	1	12/25/15 11:18	12/26/15 01:04	JM
Wet Chemistry by Method 9056A	WG838557	1	12/29/15 14:09	12/29/15 14:09	CM

¹Cp²Tc³Ss

605-2 DOWNSTREAM L808765-02 GW

Collected by
Robert StocktonCollected date/time
12/21/15 13:20Received date/time
12/23/15 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG838377	1	12/25/15 11:18	12/26/15 01:04	JM
Wet Chemistry by Method 9056A	WG838557	1	12/29/15 14:23	12/29/15 14:23	CM

⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Dissolved Solids	358		10.0	1	12/26/2015 01:04	WG838377

Wet Chemistry by Method 9056A

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>
Chloride	8.94		1.00	1	12/29/2015 14:09	WG838557
Sulfate	19.1		5.00	1	12/29/2015 14:09	WG838557

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	396		10.0	1	12/26/2015 01:04	WG838377

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	10.2		1.00	1	12/29/2015 14:23	WG838557
Sulfate	62.5		5.00	1	12/29/2015 14:23	WG838557

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) 12/26/15 01:04

Analyte	MB Result	MB Qualifier	MB RDL
	mg/l		mg/l
Dissolved Solids	ND		10.0

L808647-01 Original Sample (OS) • Duplicate (DUP)

(OS) 12/26/15 01:04 • (DUP) 12/26/15 01:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Dissolved Solids	399	388	1	2.80		5

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

(LCS) 12/26/15 01:04 • (LCSD) 12/26/15 01:04

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	%	%	%			%	%
Dissolved Solids	8800	8080	8470	91.8	96.3	85.0-115			4.71	5

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) 12/29/15 09:13

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
Chloride	ND		1.00
Sulfate	ND		5.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L808729-04 Original Sample (OS) • Duplicate (DUP)

(OS) 12/29/15 10:41 • (DUP) 12/29/15 10:54

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	4.18	4.18	1	0		15
Sulfate	22.0	21.9	1	0		15

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

(LCS) 12/29/15 09:27 • (LCSD) 12/29/15 09:41

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Chloride	40.0	39.2	39.1	98	98	80-120			0	15
Sulfate	40.0	39.4	39.5	98	99	80-120			0	15

L808729-05 Original Sample (OS) • Matrix Spike (MS)

(OS) 12/29/15 11:08 • (MS) 12/29/15 11:22

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	50.0	10.8	59.6	98	1	80-120	

L808777-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 12/29/15 16:15 • (MS) 12/29/15 16:28 • (MSD) 12/29/15 16:42

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	158	641	645	97	97	10	80-120			1	15
Sulfate	50.0	172	655	656	97	97	10	80-120			0	15



L808729-05 Original Sample (OS) • Matrix Spike (MS)

(OS) 12/29/15 17:24 • (MS) 12/29/15 17:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Sulfate	50.0	265	1240	97	20	80-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Abbreviations and Definitions

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

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



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State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
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Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	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 ¹⁴	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		

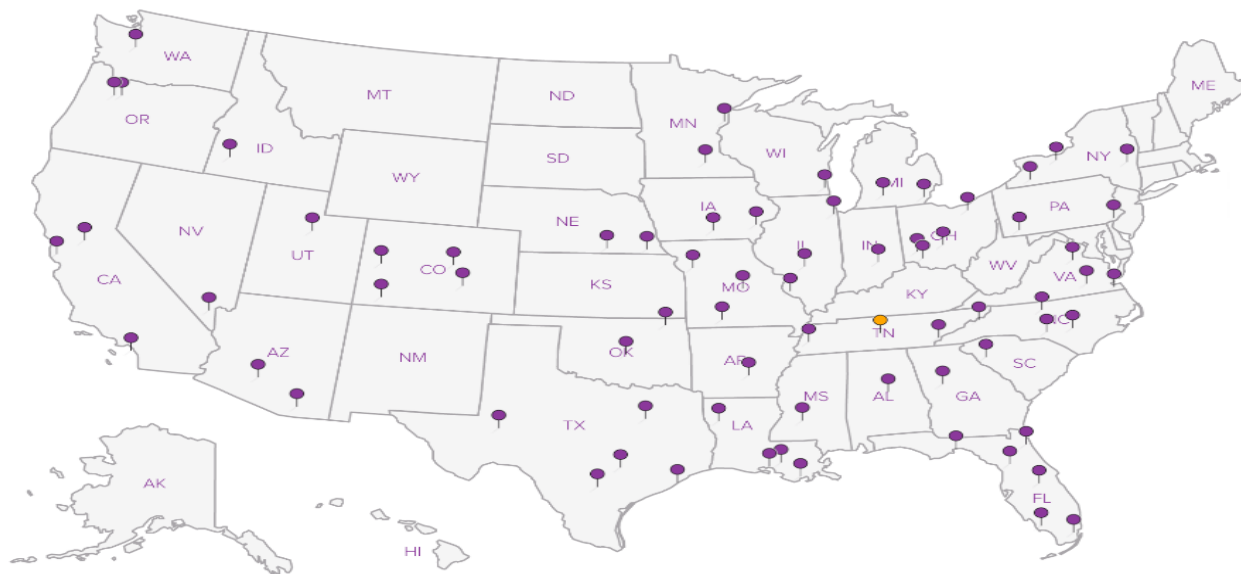
Third Party & Federal Accreditations

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.**



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