



12065 Lebanon Rd.
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Tax I.D. 62-0814289

Est. 1970

Stuart Hall
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Monday March 11, 2013

Report Number: L622496

Samples Received: 03/01/13

Client Project: 012-0744

Description:

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

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Stuart Hall
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

March 11, 2013

Date Received : March 01, 2013
Description :

ESC Sample # : L622496-01

Sample ID : MW-1

Site ID :

Collected By : Jess Vann
Collection Date : 02/28/13 12:30

Project # : 012-0744

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	BDL	1.0	mg/l	9056	03/01/13	1
Chloride	46.	1.0	mg/l	9056	03/01/13	1
Fluoride	0.90	0.10	mg/l	9056	03/01/13	1
Nitrate	0.37	0.10	mg/l	9056	03/01/13	1
Nitrite	BDL	0.10	mg/l	9056	03/01/13	1
Sulfate	50.	5.0	mg/l	9056	03/01/13	1
Alkalinity	460	200	mg/l	2320 B-2011	03/08/13	10
pH	7.8		su	9040C	03/04/13	1
Specific Conductance	990		umhos/cm	9050A	03/06/13	1
Dissolved Solids	620	10.	mg/l	2540 C-2011	03/06/13	1
Calcium,Dissolved	51.	0.50	mg/l	6010B	03/05/13	1
Iron,Dissolved	BDL	0.10	mg/l	6010B	03/05/13	1
Magnesium,Dissolved	33.	0.10	mg/l	6010B	03/05/13	1
Manganese,Dissolved	0.030	0.010	mg/l	6010B	03/05/13	1
Potassium,Dissolved	3.0	0.50	mg/l	6010B	03/05/13	1
Selenium,Dissolved	BDL	0.020	mg/l	6010B	03/05/13	1
Sodium,Dissolved	110	0.50	mg/l	6010B	03/05/13	1
TPH (GC/FID) Low Fraction	BDL	0.10	mg/l	8015D/GRO	03/01/13	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.5		% Rec.	8015D/GRO	03/01/13	1
Benzene	BDL	0.0010	mg/l	8260B	03/01/13	1
Toluene	BDL	0.0050	mg/l	8260B	03/01/13	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	03/01/13	1
Total Xylenes	BDL	0.0030	mg/l	8260B	03/01/13	1
Surrogate Recovery						
Toluene-d8	99.8		% Rec.	8260B	03/01/13	1
Dibromofluoromethane	96.3		% Rec.	8260B	03/01/13	1
a,a,a-Trifluorotoluene	99.1		% Rec.	8260B	03/01/13	1
4-Bromofluorobenzene	96.6		% Rec.	8260B	03/01/13	1
TPH (GC/FID) High Fraction	BDL	0.10	mg/l	3511/8015	03/03/13	1
Surrogate recovery(%) o-Terphenyl	107.		% Rec.	3511/8015	03/03/13	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: 03/11/13 16:55 Printed: 03/11/13 16:56
L622496-01 (PH) - 7.8@17.6c



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REPORT OF ANALYSIS

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760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

March 11, 2013

Date Received : March 01, 2013
Description :

ESC Sample # : L622496-02

Sample ID : MW-2

Site ID :

Collected By : Jess Vann
Collection Date : 02/28/13 14:10

Project # : 012-0744

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	BDL	1.0	mg/l	9056	03/01/13	1
Chloride	66.	1.0	mg/l	9056	03/01/13	1
Fluoride	0.49	0.10	mg/l	9056	03/01/13	1
Nitrate	1.4	0.10	mg/l	9056	03/01/13	1
Nitrite	BDL	0.10	mg/l	9056	03/01/13	1
Sulfate	130	10.	mg/l	9056	03/01/13	2
Alkalinity	340	20.	mg/l	2320 B-2011	03/08/13	1
pH	8.0		su	9040C	03/04/13	1
Specific Conductance	1100		umhos/cm	9050A	03/06/13	1
Dissolved Solids	650	10.	mg/l	2540 C-2011	03/06/13	1
Calcium,Dissolved	78.	0.50	mg/l	6010B	03/05/13	1
Iron,Dissolved	BDL	0.10	mg/l	6010B	03/05/13	1
Magnesium,Dissolved	47.	0.10	mg/l	6010B	03/05/13	1
Manganese,Dissolved	BDL	0.010	mg/l	6010B	03/05/13	1
Potassium,Dissolved	2.8	0.50	mg/l	6010B	03/05/13	1
Selenium,Dissolved	BDL	0.020	mg/l	6010B	03/05/13	1
Sodium,Dissolved	70.	0.50	mg/l	6010B	03/05/13	1
TPH (GC/FID) Low Fraction	BDL	0.10	mg/l	8015D/GRO	03/01/13	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.7		% Rec.	8015D/GRO	03/01/13	1
Benzene	BDL	0.0010	mg/l	8260B	03/01/13	1
Toluene	BDL	0.0050	mg/l	8260B	03/01/13	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	03/01/13	1
Total Xylenes	BDL	0.0030	mg/l	8260B	03/01/13	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	03/01/13	1
Dibromofluoromethane	102.		% Rec.	8260B	03/01/13	1
a,a,a-Trifluorotoluene	104.		% Rec.	8260B	03/01/13	1
4-Bromofluorobenzene	101.		% Rec.	8260B	03/01/13	1
TPH (GC/FID) High Fraction	BDL	0.10	mg/l	3511/8015	03/03/13	1
Surrogate recovery(%) o-Terphenyl	108.		% Rec.	3511/8015	03/03/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 03/11/13 16:55 Printed: 03/11/13 16:56
L622496-02 (PH) - 8.0@19.9c



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REPORT OF ANALYSIS

Stuart Hall
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

March 11, 2013

Date Received : March 01, 2013
Description :

ESC Sample # : L622496-03

Sample ID : MW-3

Site ID :

Collected By : Jess Vann
Collection Date : 02/28/13 15:30

Project # : 012-0744

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	BDL	1.0	mg/l	9056	03/01/13	1
Chloride	79.	1.0	mg/l	9056	03/01/13	1
Fluoride	0.68	0.10	mg/l	9056	03/01/13	1
Nitrate	1.1	0.10	mg/l	9056	03/01/13	1
Nitrite	BDL	0.10	mg/l	9056	03/01/13	1
Sulfate	130	10.	mg/l	9056	03/01/13	2
Alkalinity	340	20.	mg/l	2320 B-2011	03/08/13	1
pH	7.8		su	9040C	03/04/13	1
Specific Conductance	1100		umhos/cm	9050A	03/06/13	1
Dissolved Solids	670	10.	mg/l	2540 C-2011	03/06/13	1
Calcium,Dissolved	86.	0.50	mg/l	6010B	03/06/13	1
Iron,Dissolved	BDL	0.10	mg/l	6010B	03/06/13	1
Magnesium,Dissolved	53.	0.10	mg/l	6010B	03/06/13	1
Manganese,Dissolved	BDL	0.010	mg/l	6010B	03/06/13	1
Potassium,Dissolved	3.2	0.50	mg/l	6010B	03/06/13	1
Selenium,Dissolved	BDL	0.020	mg/l	6010B	03/06/13	1
Sodium,Dissolved	80.	0.50	mg/l	6010B	03/06/13	1
TPH (GC/FID) Low Fraction	BDL	0.10	mg/l	8015D/GRO	03/01/13	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	99.5		% Rec.	8015D/GRO	03/01/13	1
Benzene	BDL	0.0010	mg/l	8260B	03/01/13	1
Toluene	BDL	0.0050	mg/l	8260B	03/01/13	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	03/01/13	1
Total Xylenes	BDL	0.0030	mg/l	8260B	03/01/13	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	03/01/13	1
Dibromofluoromethane	107.		% Rec.	8260B	03/01/13	1
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	03/01/13	1
4-Bromofluorobenzene	99.1		% Rec.	8260B	03/01/13	1
TPH (GC/FID) High Fraction	BDL	0.10	mg/l	3511/8015	03/04/13	1
Surrogate recovery(%) o-Terphenyl	109.		% Rec.	3511/8015	03/04/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L622496-03 (PH) - 7.8@18.5c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L622496-01	WG639150	SAMP	pH	R2567597	T8
L622496-02	WG639150	SAMP	pH	R2567597	T8
L622496-03	WG639150	SAMP	pH	R2567597	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
03/11/13 at 16:56:29

TSR Signing Reports: 134
R5 - Desired TAT

Log BTEX by 8260 unless otherwise noted

Sample: L622496-01 Account: OXYGJCO Received: 03/01/13 09:00 Due Date: 03/08/13 00:00 RPT Date: 03/11/13 16:55

Sample: L622496-02 Account: OXYGJCO Received: 03/01/13 09:00 Due Date: 03/08/13 00:00 RPT Date: 03/11/13 16:55

Sample: L622496-03 Account: OXYGJCO Received: 03/01/13 09:00 Due Date: 03/08/13 00:00 RPT Date: 03/11/13 16:55