

EnCana Oil & Gas - Parachute, CO

Sample Delivery Group: L798259
Samples Received: 11/03/2015
Project Number: PK36
Description: PK36 Spill Response
Site: PK36
Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

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.



20151031-PK36 (SPRG-S01) L798259-01 GW

			Collected by CM and WT	Collected date/time 10/31/15 12:00	Received date/time 11/03/15 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG826430	1	11/03/15 15:27	11/04/15 12:14	JER
Volatile Organic Compounds (GC) by Method 8021B	WG826420	1	11/03/15 18:14	11/03/15 18:14	LRL
Wet Chemistry by Method 9056MOD	WG826407	1	11/04/15 09:47	11/04/15 09:47	DJD
Wet Chemistry by Method 9056MOD	WG826407	10	11/04/15 11:04	11/04/15 11:04	DJD

¹ Cp

² Tc

³ Ss

⁴ Cn

20151031-PK36 (SW-S01) L798259-02 GW

			Collected by CM and WT	Collected date/time 10/31/15 12:30	Received date/time 11/03/15 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG826430	1	11/03/15 15:27	11/04/15 12:14	JER
Volatile Organic Compounds (GC) by Method 8021B	WG826420	1	11/03/15 18:35	11/03/15 18:35	LRL
Wet Chemistry by Method 9056MOD	WG826407	1	11/04/15 10:02	11/04/15 10:02	DJD
Wet Chemistry by Method 9056MOD	WG826407	20	11/04/15 11:19	11/04/15 11:19	DJD

⁵ Sr

⁶ Gl

⁷ Al

20151031-PK36 (SPRG-N01) L798259-03 GW

			Collected by CM and WT	Collected date/time 10/31/15 12:55	Received date/time 11/03/15 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG826430	1	11/03/15 15:27	11/04/15 12:14	JER
Volatile Organic Compounds (GC) by Method 8021B	WG826420	1	11/03/15 18:56	11/03/15 18:56	LRL
Wet Chemistry by Method 9056MOD	WG826407	1	11/04/15 10:18	11/04/15 10:18	DJD
Wet Chemistry by Method 9056MOD	WG826407	5	11/04/15 11:35	11/04/15 11:35	DJD

⁸ Sc

20151031-PK36 (SW-N01) L798259-04 GW

			Collected by CM and WT	Collected date/time 10/31/15 13:10	Received date/time 11/03/15 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG826430	1	11/03/15 15:27	11/04/15 12:14	JER
Volatile Organic Compounds (GC) by Method 8021B	WG826420	1	11/03/15 19:17	11/03/15 19:17	LRL
Wet Chemistry by Method 9056MOD	WG826407	1	11/04/15 10:33	11/04/15 10:33	DJD
Wet Chemistry by Method 9056MOD	WG826407	10	11/04/15 11:50	11/04/15 11:50	DJD

20151031-PK36 (SW-N02) L798259-05 GW

			Collected by CM and WT	Collected date/time 10/31/15 13:25	Received date/time 11/03/15 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Gravimetric Analysis by Method 2540 C-2011	WG826430	1	11/03/15 15:27	11/04/15 12:14	JER
Volatile Organic Compounds (GC) by Method 8021B	WG826420	1	11/03/15 19:38	11/03/15 19:38	LRL
Wet Chemistry by Method 9056MOD	WG826407	1	11/04/15 10:49	11/04/15 10:49	DJD
Wet Chemistry by Method 9056MOD	WG826407	10	11/04/15 12:06	11/04/15 12:06	DJD

ACCOUNT:

EnCana Oil & Gas - Parachute, CO

PROJECT:

PK36

SDG:

L798259

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11/04/15 17:37

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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 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 Gl

⁷ Al

⁸ Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1040		10.0	1	11/04/2015 12:14	WG826430

1
Cp2
Tc

Wet Chemistry by Method 9056MOD

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	26.5		1.00	1	11/04/2015 09:47	WG826407
Sulfate	430		50.0	10	11/04/2015 11:04	WG826407

3
Ss4
Cn5
Sr

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	11/03/2015 18:14	WG826420
Toluene	ND		0.00500	1	11/03/2015 18:14	WG826420
Ethylbenzene	ND		0.000500	1	11/03/2015 18:14	WG826420
Total Xylene	ND		0.00150	1	11/03/2015 18:14	WG826420
(S) <i>a,a,a</i> -Trifluorotoluene(PID)	100		55.0-122		11/03/2015 18:14	WG826420

6
Gl7
Al8
Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1660		10.0	1	11/04/2015 12:14	WG826430

1 Cp

2 Tc

Wet Chemistry by Method 9056MOD

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	52.7		1.00	1	11/04/2015 10:02	WG826407
Sulfate	808		100	20	11/04/2015 11:19	WG826407

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	11/03/2015 18:35	WG826420
Toluene	ND		0.00500	1	11/03/2015 18:35	WG826420
Ethylbenzene	ND		0.000500	1	11/03/2015 18:35	WG826420
Total Xylene	ND		0.00150	1	11/03/2015 18:35	WG826420
(S) o,o,a-Trifluorotoluene(PID)	101		55.0-122		11/03/2015 18:35	WG826420

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	858		10.0	1	11/04/2015 12:14	WG826430

1 Cp

2 Tc

Wet Chemistry by Method 9056MOD

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Chloride	58.6		1.00	1	11/04/2015 10:18	WG826407
Sulfate	267		25.0	5	11/04/2015 11:35	WG826407

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.000500	1	11/03/2015 18:56	WG826420
Toluene	ND		0.00500	1	11/03/2015 18:56	WG826420
Ethylbenzene	ND		0.000500	1	11/03/2015 18:56	WG826420
Total Xylene	ND		0.00150	1	11/03/2015 18:56	WG826420
(S) o,o,a-Trifluorotoluene(PID)	101		55.0-122		11/03/2015 18:56	WG826420

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1260		10.0	1	11/04/2015 12:14	WG826430

1 Cp

2 Tc

Wet Chemistry by Method 9056MOD

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	38.8		1.00	1	11/04/2015 10:33	WG826407
Sulfate	529		50.0	10	11/04/2015 11:50	WG826407

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	11/03/2015 19:17	WG826420
Toluene	ND		0.00500	1	11/03/2015 19:17	WG826420
Ethylbenzene	ND		0.000500	1	11/03/2015 19:17	WG826420
Total Xylene	ND		0.00150	1	11/03/2015 19:17	WG826420
(S) o,o,a-Trifluorotoluene(PID)	101		55.0-122		11/03/2015 19:17	WG826420

6 Gl

7 Al

8 Sc



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1170		10.0	1	11/04/2015 12:14	WG826430

1 Cp

2 Tc

Wet Chemistry by Method 9056MOD

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	38.2		1.00	1	11/04/2015 10:49	WG826407
Sulfate	485		50.0	10	11/04/2015 12:06	WG826407

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	11/03/2015 19:38	WG826420
Toluene	ND		0.00500	1	11/03/2015 19:38	WG826420
Ethylbenzene	ND		0.000500	1	11/03/2015 19:38	WG826420
Total Xylene	ND		0.00150	1	11/03/2015 19:38	WG826420
(S) o,o,a-Trifluorotoluene(PID)	101		55.0-122		11/03/2015 19:38	WG826420

6 Gl

7 Al

8 Sc



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 Gl⁷ Al⁸ 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.**



