



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

D Blake Ford
EnCana Oil & Gas - Longmont, CO
3601 Stagecoach Rd
Longmont, CO 80504

Report Summary

Monday February 24, 2014

Report Number: L683169

Samples Received: 02/14/14

Client Project: VOGL-MCCOY

Description: Vogl-McCoy Drilling Pad Spill Response

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:


Jared Willis , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-IN-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

D Blake Ford
EnCana Oil & Gas - Longmont, CO
3601 Stagecoach Rd
Longmont, CO 80504

February 24, 2014

Date Received : February 14, 2014
Description : Vogl-McCoy Drilling Pad Spill Response
Sample ID : VOGL-MCCOY-SPILLAREA-021314
Collected By : Blake Ford
Collection Date : 02/13/14 13:25

ESC Sample # : L683169-01

Site ID : VOGL-MCCOY DRILLING PA

Project # : VOGL-MCCOY

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	02/19/14	1
ORP	37.		mV	2580 B-2011	02/19/14	1
pH	8.3		su	9045D	02/16/14	1
Sodium Adsorption Ratio	5.8			Calc.	02/20/14	1
Specific Conductance	330		umhos/cm	9050AMod	02/21/14	1
Mercury	BDL	0.020	mg/kg	7471	02/15/14	1
Arsenic	2.0	1.0	mg/kg	6010B	02/21/14	1
Barium	910	0.25	mg/kg	6010B	02/21/14	1
Cadmium	BDL	0.25	mg/kg	6010B	02/21/14	1
Chromium	7.8	0.50	mg/kg	6010B	02/21/14	1
Copper	7.6	1.0	mg/kg	6010B	02/21/14	1
Lead	4.1	0.25	mg/kg	6010B	02/21/14	1
Nickel	4.2	1.0	mg/kg	6010B	02/21/14	1
Selenium	BDL	1.0	mg/kg	6010B	02/21/14	1
Silver	BDL	0.50	mg/kg	6010B	02/21/14	1
Zinc	18.	1.5	mg/kg	6010B	02/21/14	1
Benzene	0.0046	0.0025	mg/kg	8021/8015	02/14/14	5
Toluene	BDL	0.025	mg/kg	8021/8015	02/14/14	5
Ethylbenzene	0.0067	0.0025	mg/kg	8021/8015	02/14/14	5
Total Xylene	0.057	0.0075	mg/kg	8021/8015	02/14/14	5
TPH (GC/FID) Low Fraction	0.93	0.50	mg/kg	GRO	02/14/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.6		% Rec.	8021/8015	02/14/14	5
a,a,a-Trifluorotoluene(PID)	99.3		% Rec.	8021/8015	02/14/14	5
TPH (GC/FID) High Fraction	11.	4.0	mg/kg	3546/DRO	02/20/14	1
Surrogate recovery(%)						
o-Terphenyl	115.		% Rec.	3546/DRO	02/20/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L683169-01 (PH) - 8.3@22.0c



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Sample ID : VOGL-MCCOY-SPILLAREA-021314

Collected By : Blake Ford
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ESC Sample # : L683169-01

Site ID : VOGL-MCCOY DRILLING PA

Project # : VOGL-MCCOY

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	02/19/14	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	02/19/14	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	02/19/14	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	02/19/14	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	02/19/14	1
Surrogate Recovery						
Nitrobenzene-d5	75.1		% Rec.	8270C-SIM	02/19/14	1
2-Fluorobiphenyl	78.3		% Rec.	8270C-SIM	02/19/14	1
p-Terphenyl-d14	79.8		% Rec.	8270C-SIM	02/19/14	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: 02/24/14 09:08 Printed: 02/24/14 09:09
L683169-01 (PH) - 8.3@22.0c

Summary of Remarks For Samples Printed
02/24/14 at 09:09:19

TSR Signing Reports: 358
R5 - Desired TAT

Log all BTEX waters as V8260BTEX unless specified otherwise. Try not to report benzene as BDL
above a 5x dilution.

Sample: L683169-01 Account: ENCANLCO Received: 02/14/14 09:00 Due Date: 02/21/14 00:00 RPT Date: 02/24/14 09:08