

NARRATIVE ATTACHMENT

FORM 4 (SUNDRY NOTICE)

Earthen Pit (Steel Tank) Closure (Cathedral Federal Unit #27-1)

Document Date-8/6/2014

Introduction

Encana Oil & Gas (USA) Inc. (Encana) is submitting this Form 4 Sundry Notice to request final closure status for the earthen pit associated with the Cathedral Federal Unit #27-1 (COGCC facility #314987, COGCC remediation #8467). The site investigation was conducted by a third party contractor as authorized by Encana personnel and in accordance with the approved Form 27 previously submitted for this location. All samples were collected in accordance with Encana's Environmental Compliance Group's Sampling Procedures. The analytical results for the respective soil samples are provided in Table 1 and Attachment A of this submittal. The text below provides the details of the site investigation. For a visual description of the site please refer to Figures 1, 2, and 3 – Site Maps.

Assessment Activities

June 10, 2014 - The excavated soil surrounding the earthen pit was screened utilizing a photoionization detector (PID) prior to collecting soil samples for laboratory analysis. The steel tank was carefully removed using a trackhoe and placed onsite for later recycling or disposal. It should be noted that the steel tank was pumped out prior to removal. grab sample was collected directly from the lowest point of the pit after excavation. In addition, four (4) grab samples were collected, one from each excavated sidewall. Approximately 47 cubic yards of excavated material was removed from the pit and laid out in 2 foot tall (45' x 12') lift for evaluation of impacts. The excavated material was sampled by way of a nine (9) point composite sample. Four (4) background samples were collected from approximately six (6) inches beneath the grounds surface for analysis with regards to arsenic.

Analytical Review

Sample results indicate that soil within the earthen pit (w/steel tank) footprint on Encana's Cathedral Federal Unit #27-1 well pad, had organic constituent concentrations of the excavated area below or within COGCC Table 910-1 except for benzene collected from the base of the pit. Analytical results indicated the excavated material exceeded COGCC Table 910-1 allowable concentrations for arsenic (4.9 ppm) and Total Petroleum Hydrocarbons (TPH) (880 ppm). Though the arsenic concentration in the soil is above the allowable concentration identified in Table 910-1, the concentration is close to the range of arsenic background values (Non Detect – 2.0 ppm) in this area. Based on these results and footnote 1 to COGCC Table 910-1, Encana requests that the COGCC consider the higher range of background arsenic value(s) as the allowable concentration for this constituent. Please see Table 1 and Attachment A for the analytical results.

Though the elevated arsenic level of the returned spoil material within the excavated footprint area is above the allowable levels identified in Table 910-1; it will be buried greater than three feet bgs of existing pad footprint material to assure that material with elevated level of arsenic will have no adverse effect on future re-vegetation efforts and receptors in the area. Please see Table 1 and Attachment A for analytical results.



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The excavated material that exceeded COGCC Table 910-1 allowable concentration for TPH was landfarmed and amended with water, fertilizer, and turned. The excavated material was re-sampled July 23, 2014 and the results are below or within allowable COGCC Table 910-1 concentrations. The sample collected from the base of the excavated pit that exceeded the allowable limit for benzene was also resampled at this time and the result was within allowable COGCC Table 910-1 concentrations.

Conclusion

Based on the site investigation and analytical results, the earthen pit associated with the Cathedral Federal Unit #27-1 is in compliance with the standards specified within COGCC Table 910-1. Encana respectfully requests that final closure be granted for the respective pit, COGCC remediation #8467.

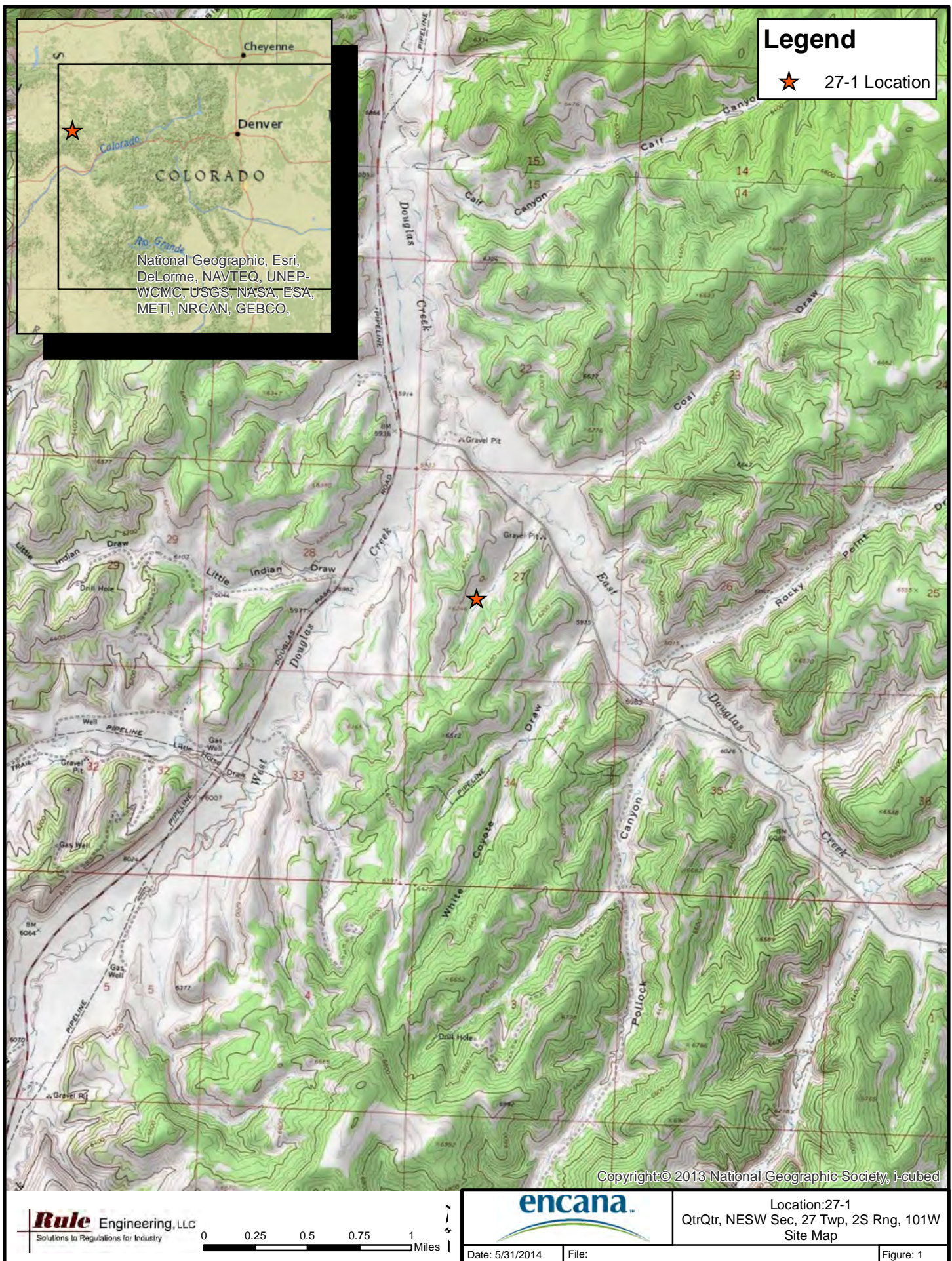
Notification of Completion

This Sundry Notice is also being submitted as the Notification of Completion for Remediation #8467. If the information provided here is satisfactory, please provide documentation of the closure of this remediation project.

Attachments

Topographic Location Map (Figure 1)
27-1 Aerial map with sample locations (Figure 2)
27-1 Site Diagram of Excavation and sample locations (Figure 3)
Laboratory Results Summary Table 1 – 27-1 Site Investigation (Table 1)
Attachment A- Laboratory Reports





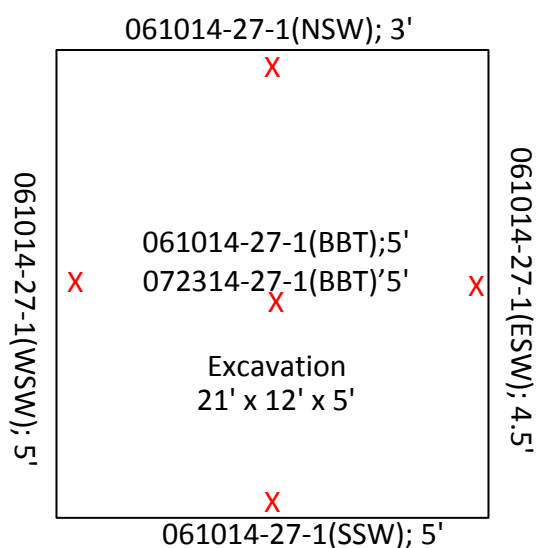
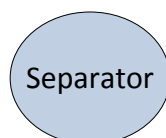
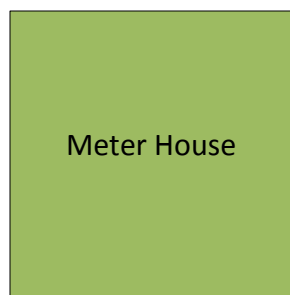


Legend

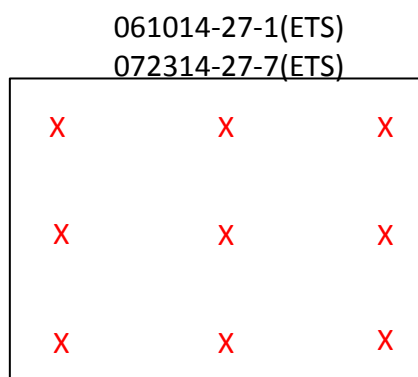
★ Soil Sample Location

0 37.5 75 150 225 Feet





Direction of
Flow



Lift
45' x 12' x 2'



Legend
X-Sample



Well: Figure 3. 27-1 Site Diagram

Area: Cathedral Federal Unit

Legal: NESW, Sec 27, 02S, 101W, 6th PM

Date: 07/23/14

Drawn By: Shad Johnson

Revision Date:

Scale: None

Page 1 of 1

APPENDIX A



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

Charles Jensen
EnCana Oil & Gas - Rangely, CO
1125 Escalante Drive
Rangely, CO 81648-3600

Report Summary

Wednesday June 18, 2014

Report Number: L704024


Samples Received: 06/11/14

Client Project: 27-1

Description: 27-1 Site Clearance

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

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

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REPORT OF ANALYSIS

Charles Jensen
EnCana Oil & Gas - Rangely, CO
1125 Escalante Drive
Rangely, CO 81648-3600

June 18, 2014

Date Received : June 11, 2014
Description : 27-1 Site Clearance
Sample ID : 061014-27-1 (NSW) 3 FT
Collected By : Shad Johnson
Collection Date : 06/10/14 11:00

ESC Sample # : L704024-01

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/12/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/12/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	06/12/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	98.4		% Rec.	8021/8015	06/12/14	5
a,a,a-Trifluorotoluene(PID)	98.8		% Rec.	8021/8015	06/12/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	06/17/14	1
Surrogate recovery(%)						
o-Terphenyl	72.1		% Rec.	3546/DRO	06/17/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

Charles Jensen
EnCana Oil & Gas - Rangely, CO
1125 Escalante Drive
Rangely, CO 81648-3600

June 18, 2014

Date Received : June 11, 2014
Description : 27-1 Site Clearance
Sample ID : 061014-27-1 (ESW) 4.5 FT
Collected By : Shad Johnson
Collection Date : 06/10/14 11:15

ESC Sample # : L704024-02

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/12/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/12/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	06/12/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	98.3		% Rec.	8021/8015	06/12/14	5
a,a,a-Trifluorotoluene(PID)	98.8		% Rec.	8021/8015	06/12/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	06/17/14	1
Surrogate recovery(%)						
o-Terphenyl	73.1		% Rec.	3546/DRO	06/17/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Charles Jensen
EnCana Oil & Gas - Rangely, CO
1125 Escalante Drive
Rangely, CO 81648-3600

June 18, 2014

Date Received : June 11, 2014
Description : 27-1 Site Clearance
Sample ID : 061014-27-1 (SSW) 5 FT
Collected By : Shad Johnson
Collection Date : 06/10/14 10:45

ESC Sample # : L704024-03

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/12/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/12/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	06/12/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.0		% Rec.	8021/8015	06/12/14	5
a,a,a-Trifluorotoluene(PID)	99.4		% Rec.	8021/8015	06/12/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	06/17/14	1
Surrogate recovery(%)						
o-Terphenyl	79.9		% Rec.	3546/DRO	06/17/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Charles Jensen
EnCana Oil & Gas - Rangely, CO
1125 Escalante Drive
Rangely, CO 81648-3600

June 18, 2014

Date Received : June 11, 2014
Description : 27-1 Site Clearance
Sample ID : 061014-27-1 (WSW) 5 FT
Collected By : Shad Johnson
Collection Date : 06/10/14 11:25

ESC Sample # : L704024-04

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Toluene	BDL	0.025	mg/kg	8021/8015	06/12/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	06/12/14	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	06/12/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	06/12/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	98.9		% Rec.	8021/8015	06/12/14	5
a,a,a-Trifluorotoluene(PID)	99.5		% Rec.	8021/8015	06/12/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	06/17/14	1
Surrogate recovery(%)						
o-Terphenyl	64.3		% Rec.	3546/DRO	06/17/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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EnCana Oil & Gas - Rangely, CO
1125 Escalante Drive
Rangely, CO 81648-3600

June 18, 2014

Date Received : June 11, 2014
Description : 27-1 Site Clearance
Sample ID : 061014-27-1 (BBT) 5 FT
Collected By : Shad Johnson
Collection Date : 06/10/14 11:45

ESC Sample # : L704024-05

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	2.2	0.12	mg/kg	8021/8015	06/12/14	250
Toluene	2.0	1.2	mg/kg	8021/8015	06/12/14	250
Ethylbenzene	2.5	0.12	mg/kg	8021/8015	06/12/14	250
Total Xylene	8.4	0.38	mg/kg	8021/8015	06/12/14	250
TPH (GC/FID) Low Fraction	270	25.	mg/kg	GRO	06/12/14	250
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.2		% Rec.	8021/8015	06/12/14	250
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021/8015	06/12/14	250
TPH (GC/FID) High Fraction	32.	4.0	mg/kg	3546/DRO	06/17/14	1
Surrogate recovery(%)						
o-Terphenyl	77.0		% Rec.	3546/DRO	06/17/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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1125 Escalante Drive
Rangely, CO 81648-3600

June 18, 2014

Date Received : June 11, 2014
Description : 27-1 Site Clearance
Sample ID : 061014-27-1 (ETS) 3-9 IN
Collected By : Shad Johnson
Collection Date : 06/10/14 12:30

ESC Sample # : L704024-06
Site ID : 27-1
Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	06/13/14	1
Chromium, Trivalent	9.5	2.0	mg/kg	Calc.	06/17/14	1
ORP	20.		mV	2580 B-2011	06/13/14	1
pH	7.1		su	9045D	06/13/14	1
Sodium Adsorption Ratio	2.4			Calc.	06/18/14	1
Specific Conductance	1800		umhos/cm	9050AMod	06/13/14	1
Mercury	BDL	0.020	mg/kg	7471	06/13/14	1
Arsenic	4.9	2.0	mg/kg	6010B	06/12/14	1
Barium	190	0.50	mg/kg	6010B	06/12/14	1
Cadmium	0.64	0.50	mg/kg	6010B	06/12/14	1
Chromium	9.5	1.0	mg/kg	6010B	06/12/14	1
Copper	4.6	2.0	mg/kg	6010B	06/12/14	1
Lead	8.8	0.50	mg/kg	6010B	06/12/14	1
Nickel	5.7	2.0	mg/kg	6010B	06/13/14	1
Selenium	BDL	2.0	mg/kg	6010B	06/12/14	1
Silver	BDL	1.0	mg/kg	6010B	06/12/14	1
Zinc	36.	3.0	mg/kg	6010B	06/12/14	1
Benzene	0.024	0.012	mg/kg	8021/8015	06/12/14	25
Toluene	BDL	0.12	mg/kg	8021/8015	06/12/14	25
Ethylbenzene	0.21	0.012	mg/kg	8021/8015	06/12/14	25
Total Xylene	1.5	0.038	mg/kg	8021/8015	06/12/14	25
TPH (GC/FID) Low Fraction	580	10.	mg/kg	GRO	06/17/14	100
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	94.4		% Rec.	8021/8015	06/17/14	100
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021/8015	06/12/14	25
TPH (GC/FID) High Fraction	300	4.0	mg/kg	3546/DRO	06/17/14	1
Surrogate recovery(%)						
o-Terphenyl	60.0		% Rec.	3546/DRO	06/17/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L704024-06 (PH) - 7.1 @ 21.4c



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REPORT OF ANALYSIS

Charles Jensen
EnCana Oil & Gas - Rangely, CO
1125 Escalante Drive
Rangely, CO 81648-3600

June 18, 2014

Date Received : June 11, 2014
Description : 27-1 Site Clearance
Sample ID : 061014-27-1 (ETS) 3-9 IN
Collected By : Shad Johnson
Collection Date : 06/10/14 12:30

ESC Sample # : L704024-06

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Naphthalene	0.22	0.020	mg/kg	8270C-SIM	06/14/14	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/14/14	1
1-Methylnaphthalene	0.12	0.020	mg/kg	8270C-SIM	06/14/14	1
2-Methylnaphthalene	0.13	0.020	mg/kg	8270C-SIM	06/14/14	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/14/14	1
Surrogate Recovery						
p-Terphenyl-d14	81.9		% Rec.	8270C-SIM	06/14/14	1
Nitrobenzene-d5	193.		% Rec.	8270C-SIM	06/14/14	1
2-Fluorobiphenyl	76.6		% Rec.	8270C-SIM	06/14/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L704024-06 (PH) - 7.1 @ 21.4c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L704024-06	WG726363	SAMP	Nitrobenzene-d5	R2941665	J1

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits

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
06/18/14 at 12:47:23

TSR Signing Reports: 358
R5 - Desired TAT

Sample: L704024-01 Account: ENCANRCO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/18/14 12:46
Sample: L704024-02 Account: ENCANRCO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/18/14 12:46
Sample: L704024-03 Account: ENCANRCO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/18/14 12:46
Sample: L704024-04 Account: ENCANRCO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/18/14 12:46
Sample: L704024-05 Account: ENCANRCO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/18/14 12:46
Sample: L704024-06 Account: ENCANRCO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/18/14 12:46

Encana Oil & Gas (USA)
143 Diamond Ave.
Parachute, CO 81635
ENCANRCO-RULEENG

Billing Information:
Charlie Jensen
143 Diamond Ave
Parachute, CO 81635

Report to: Charlie Jensen

Email to: charles.jensen@encana.com

Project Description: 27-1 - SITE CLEARANCE

City/State Collected: CO

Phone: 970-285-2735
FAX:

Client Project #: 27-1

ESC Key: ENCANRCO-RULEENG

Collected by: Shad Johnson

Site/Facility ID#: 27-1

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day.....200%
Next Day.....100%
Two Day.....50%
Three Day.....25%

Date Results Needed:

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

Immediately Packed on Ice N

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEXGRO / DRO - 8021/8015	SV8270PAHSIM - 8270SIM	SPCON - 9050AMod	SAR - Calc.	RCRA8 Metals + Cu, Ni, and Zn - 6010/7470	CR6SS - 3060A/7196	CR3 - Calc.	Arsenic
061014-27-1(NSW); 3'	Grab	SS	3'	6-10-14	1100	2	X							
061014-27-1(ESW); 4.5'	Grab	SS	4.5'	6-10-14	1115	2	X							
061014-27-1(SSW); 5'	Grab	SS	5'	6-10-14	1045	2	X							
061014-27-1(WSW); 5'	Grab	SS	5'	6-10-14	1125	2	X							
061014-27-1(BBT); 5'	Grab	SS	5'	6-10-14	1145	2	X							
061014-27-1(ETS); 3-9"	Comp	SS	3-9"	6-10-14	1230	3	X	X	X	X	X	X	X	X

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

ESC
L.A.B S.C.I.E.N.C.E.S

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

CoCode ENCANRCO (lab use only)

Template/Prelogin

Shipped Via: T70530

Remarks/Contaminant Sample # (lab only)

0704024-01 0704020

pH Temp

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

5439 9648 2893

Relinquished by: (Signature)	Date: 6-10-14	Time: 1500	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <input checked="" type="checkbox"/> AN
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 31.2	Bottles Received: 13 = 400
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6-11-14	Time: 0900
				pH Checked:	NCF:



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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Chris Hines
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

Report Summary

Monday June 16, 2014

Report Number: L704032

Samples Received: 06/11/14

Client Project: 27-1

Description: 27-1 - Site Clearance

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:

T. Alan Harvill , 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

June 16, 2014

Chris Hines
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

Date Received : June 11, 2014
Description : 27-1 - Site Clearance
Sample ID : 061014-27-1 (BG1N) 6IN
Collected By : Shad Johnson
Collection Date : 06/10/14 09:00

ESC Sample # : L704032-01

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	BDL	2.0	mg/kg	6010B	06/14/14	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: 06/16/14 12:01 Printed: 06/16/14 12:01



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REPORT OF ANALYSIS

June 16, 2014

Chris Hines
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

Date Received : June 11, 2014
Description : 27-1 - Site Clearance
Sample ID : 061014-27-1 (BG2E) 6IN
Collected By : Shad Johnson
Collection Date : 06/10/14 09:10

ESC Sample # : L704032-02

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	2.0	2.0	mg/kg	6010B	06/14/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 06/16/14 12:01 Printed: 06/16/14 12:01



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REPORT OF ANALYSIS

June 16, 2014

Chris Hines
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

Date Received : June 11, 2014
Description : 27-1 - Site Clearance
Sample ID : 061014-27-1 (BG3S) 6IN
Collected By : Shad Johnson
Collection Date : 06/10/14 09:20

ESC Sample # : L704032-03

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	BDL	2.0	mg/kg	6010B	06/15/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 06/16/14 12:01 Printed: 06/16/14 12:01



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

June 16, 2014

Chris Hines
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

Date Received : June 11, 2014
Description : 27-1 - Site Clearance
Sample ID : 061014-27-1 (BG4W) 6IN
Collected By : Shad Johnson
Collection Date : 06/10/14 09:30

ESC Sample # : L704032-04

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	BDL	2.0	mg/kg	6010B	06/15/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 06/16/14 12:01 Printed: 06/16/14 12:01

Summary of Remarks For Samples Printed
06/16/14 at 12:01:39

TSR Signing Reports: 358
R5 - Desired TAT

Log all PAHs as PAHSIM. Log all BTEX waters by 8260. Log ALL samples for EDD (COGCC EDD).

Sample: L704032-01 Account: ENCANACO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/16/14 12:01

Sample: L704032-02 Account: ENCANACO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/16/14 12:01

Sample: L704032-03 Account: ENCANACO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/16/14 12:01

Sample: L704032-04 Account: ENCANACO Received: 06/11/14 09:00 Due Date: 06/18/14 00:00 RPT Date: 06/16/14 12:01

Encana Oil & Gas (USA)
143 Diamond Ave.
Parachute, CO 81635
ENCANRCO-RULEENG

Billing Information:
Charlie Jensen
143 Diamond Ave
Parachute, CO 81635

Report to: Charlie Jensen
Email to: charles.jensen@encana.com

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1



12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Project Description: 27-1 - SITE CLEARANCE
City/State Collected: CO
Phone: 970-285-2735
FAX: 970-285-2735
Client Project #: 27-1
ESC Key: ENCANRCO-RULEENG

Collected by: Shad Johnson
Site/Facility ID#: 27-1
P.O.#:

Collected by (signature): *[Signature]*
Immediately Packed on Ice N *[Initials]*
Rush? (Lab MUST Be Notified)
____ Same Day.....200%
____ Next Day.....100%
____ Two Day.....50%
____ Three Day.....25%
Date Results Needed:
Email? ☐ No ☒ Yes
FAX? ☒ No ☐ Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	BTEXGRO / DRO - 8021/8015	SV8270PAHSIM - 8270SIM	SPCON - 9050AMod	SAR - Calc.	RCRA8 Metals + Cu, Ni, and Zn - 6010/7470	CR6SS - 3060A/7196	CR3 - Calc.	Arsenic	Remarks/Contaminant	Sample # (lab only)
061014-27-1(BG1N); 6"	Grab	SS	6"	6-10-14	0900	1								X		-01
061014-27-1(BG2E); 6"	Grab	SS	6"	6-10-14	0910	1								X		-02
061014-27-1(BG3S); 6"	Grab	SS	6"	6-10-14	0920	1								X		-03
061014-27-1(BG4W); 6"	Grab	SS	6"	6-10-14	0930	1								X		-04

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

5939 9648 2893

Flow _____ Other _____

Relinquished by: (Signature) <i>[Signature]</i>	Date: 6-10-14	Time: 1500	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <i>OK</i>
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1	Bottles Received: 4 = 4oz
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 6-11-14	Time: 0900
				pH Checked:	NCF:

CoC Seals Intact: 1 Y N NA *OK*



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Tax I.D. 62-0814289

Est. 1970

Charles Jensen
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

Report Summary

Friday August 01, 2014

Report Number: L712252


Samples Received: 07/25/14

Client Project: 27-1

Description: 27-1 SITE CLEARANCE

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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Est. 1970

REPORT OF ANALYSIS

Charles Jensen
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

August 01, 2014

Date Received : July 25, 2014
Description : 27-1 SITE CLEARANCE
Sample ID : 072314-27-1 ETS 3-9IN
Collected By : Chris Bak
Collection Date : 07/23/14 10:10

ESC Sample # : L712252-01

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) Low Fraction	28.	25.	mg/kg	8015D/GRO	07/30/14	250
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	95.7		% Rec.	8015D/GRO	07/30/14	250
TPH (GC/FID) High Fraction	210	4.0	mg/kg	8015D/DRO	08/01/14	1
Surrogate recovery(%)						
o-Terphenyl	75.6		% Rec.	8015D/DRO	08/01/14	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: 08/01/14 11:54 Printed: 08/01/14 13:28



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Charles Jensen
EnCana Oil & Gas - Parachute, CO
143 Diamond Avenue
Parachute, CO 81635

August 01, 2014

Date Received : July 25, 2014
Description : 27-1 SITE CLEARANCE
Sample ID : 072314-27-1 BBT 5FT
Collected By : Chris Bak
Collection Date : 07/23/14 09:45

ESC Sample # : L712252-02

Site ID : 27-1

Project # : 27-1

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021B	07/26/14	5
Toluene	BDL	0.025	mg/kg	8021B	07/26/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021B	07/26/14	5
Total Xylene	BDL	0.0075	mg/kg	8021B	07/26/14	5
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	97.1		% Rec.	8021B	07/26/14	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 08/01/14 11:54 Printed: 08/01/14 13:28

Encana Oil & Gas (USA)
143 Diamond Ave.
Parachute, CO 81635
ENCANRCO-RULEENG

Billing Information:
Charlie Jensen
143 Diamond Ave
Parachute, CO 81635

Report to: Charlie Jensen
Email to: charles.jensen@encana.com

Project Description:	27-1 - SITE CLEARANCE
----------------------	-----------------------

Phone: 970-285-2735
FAX:

Client Project #: 27-1

City/State
Collected *Rangely, CO*

ESC Key: ENCANRCO-RULEENG

Collected by Chris Bak

Site/Facility ID#: 27-1

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Date Results Needed:

_____ Same Day.....	200%
_____ Next Day.....	100%
_____ Two Day	50%
_____ Three Day	25%

Email? ☐ No ☒ Yes

FAX? ☒ No ☐ Yes

Immediately Packed on Ice N

[illegible]

*Matrix: SS - Sol/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

6051 2428 2922

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)		Date:	Time:	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only)
[Signature]		7/23/14				
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature)	Temp: 25°C	Bottles Received: 4-402
Relinquished by: (Signature)		Date:	Time:	Received for lab by: (Signature)	Date: 7-24-14	Time: 8900
						CoC Seals Intact: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
						pH Checked: <input type="checkbox"/> NCF: <input checked="" type="checkbox"/>

4

Jarred Willis; Login
RE: ENCANACO NC

Non-Conformance Form

Login #: L712252

Client: ENCANACO

Date: 7/24/14

Evaluated by: Dustin Cornelison

Non-Conformance (check applicable items)

Sample Integrity		Chain of Custody Clarification		
Parameter(s) past holding time	X	Login Clarification Needed		If Broken Container: Insufficient packing material around container Insufficient packing material inside cooler
Improper temperature		Chain of custody is incomplete		
Improper container type		Please specify Metals requested.		
Improper preservation		Please specify TCLP requested.		
Insufficient sample volume.		Received additional samples not listed on coc.		
Sample is biphasic.		Sample ids on containers do not match ids on coc		Improper handling by carrier <u>FedEx / UPS / Cour</u> Sample was frozen
Vials received with headspace.		Trip Blank not received.		Container lid not intact
Broken container		Client did not "X" analysis.		If no Chain of Custody:
Broken container.		Chain of Custody is missing		Received by:
Sufficient sample remains				Date/Time:
				Temp./Cont Rec./pH:
				Carrier:

Login Comments: What TPH?

Client informed by:	Call X	Email	Voice Mail	Date: 7/25/14	Time: 4:00
---------------------	--------	-------	------------	---------------	------------

Login Instructions: TPH= GRO and DRO