

NARRATIVE ATTACHMENT

FORM 4 (SUNDRY NOTICE)

Culvert Pit Closure (Lower Horse Draw Unit 2214)

Document Date-8/28/2013

Introduction

Encana Oil & Gas (USA) Inc. (Encana) is submitting this Form 4 Sundry Notice to request final closure status for the culvert pit associated with the Lower Horse Draw Unit #2214 (COGCC facility #314845, COGCC remediation #TBD). 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

July 18, 2013 - The excavated soil surrounding the culvert pit was screened utilizing a photoionization detector (PID) prior to collecting soil samples for laboratory analysis. The culvert pit (steel ring, soil, no cement bottom) was carefully removed using a trackhoe and placed onsite for later recycling or disposal. It should be noted that there was no liquid/sludge associated with the bottom of the culvert pit during the time of removal. A grab sample was collected directly from the lowest point of the culvert pit after excavation. In addition, four (4) grab samples were collected, one from each excavated sidewall. Approximately 40 cubic yards of excavated material was removed from the pit and laid out in 1.5 foot tall (32' x 23') 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 culvert pit footprint on Encana's Lower Horse Draw Unit #2214 well pad, had organic constituent concentrations of the excavated area below or within COGCC Table 910-1. Analytical results indicated the excavated material exceeded COGCC Table 910-1 allowable concentrations for arsenic (3.6 ppm). Though the arsenic concentration in the soil is above the allowable concentration identified in Table 910-1, the concentration is below the range of arsenic background values (4.1 – 5.4 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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Conclusion

Based on the site investigation and analytical results, the culvert pit associated with the Lower Horse Draw Unit #2214 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 #TBD.

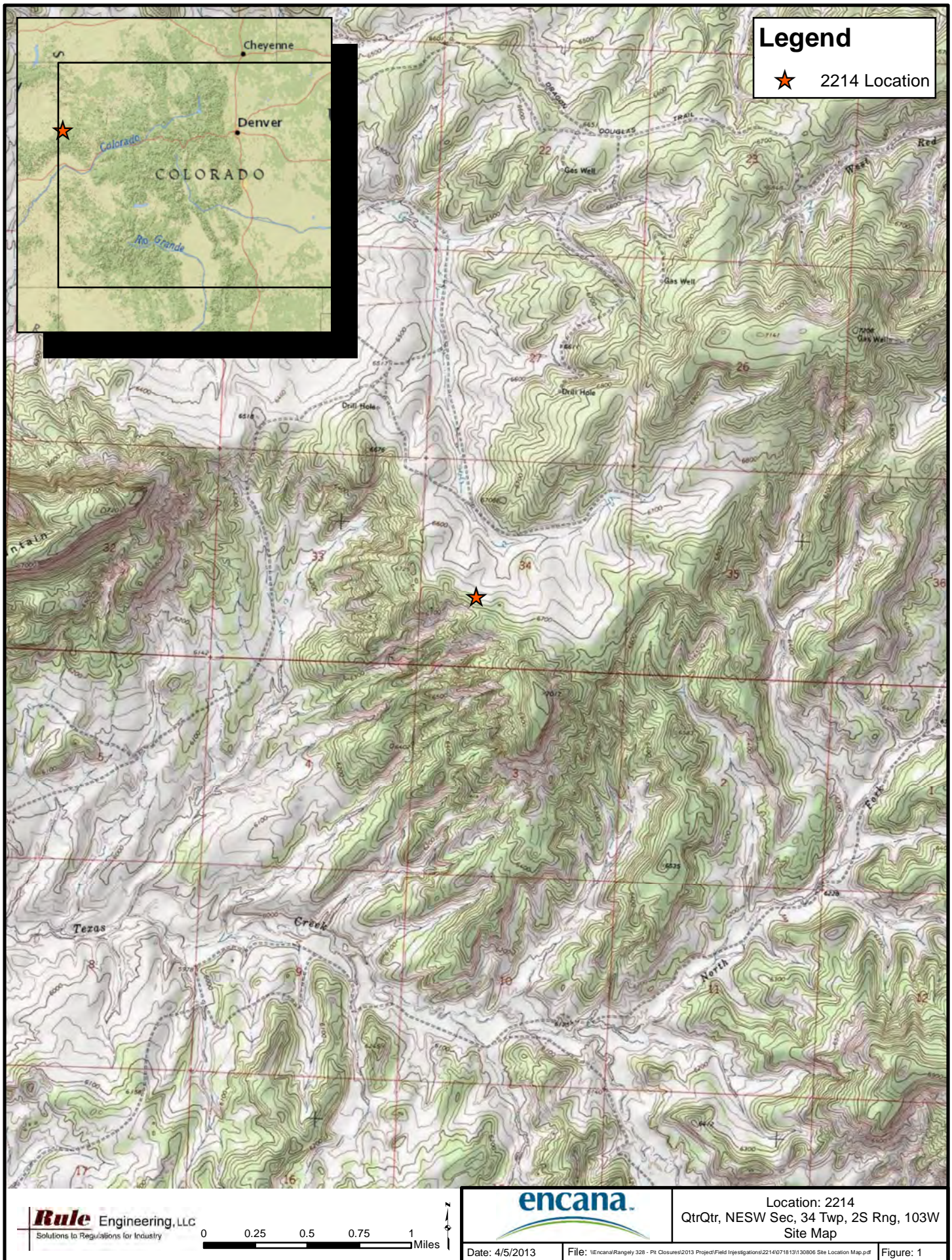
Notification of Completion

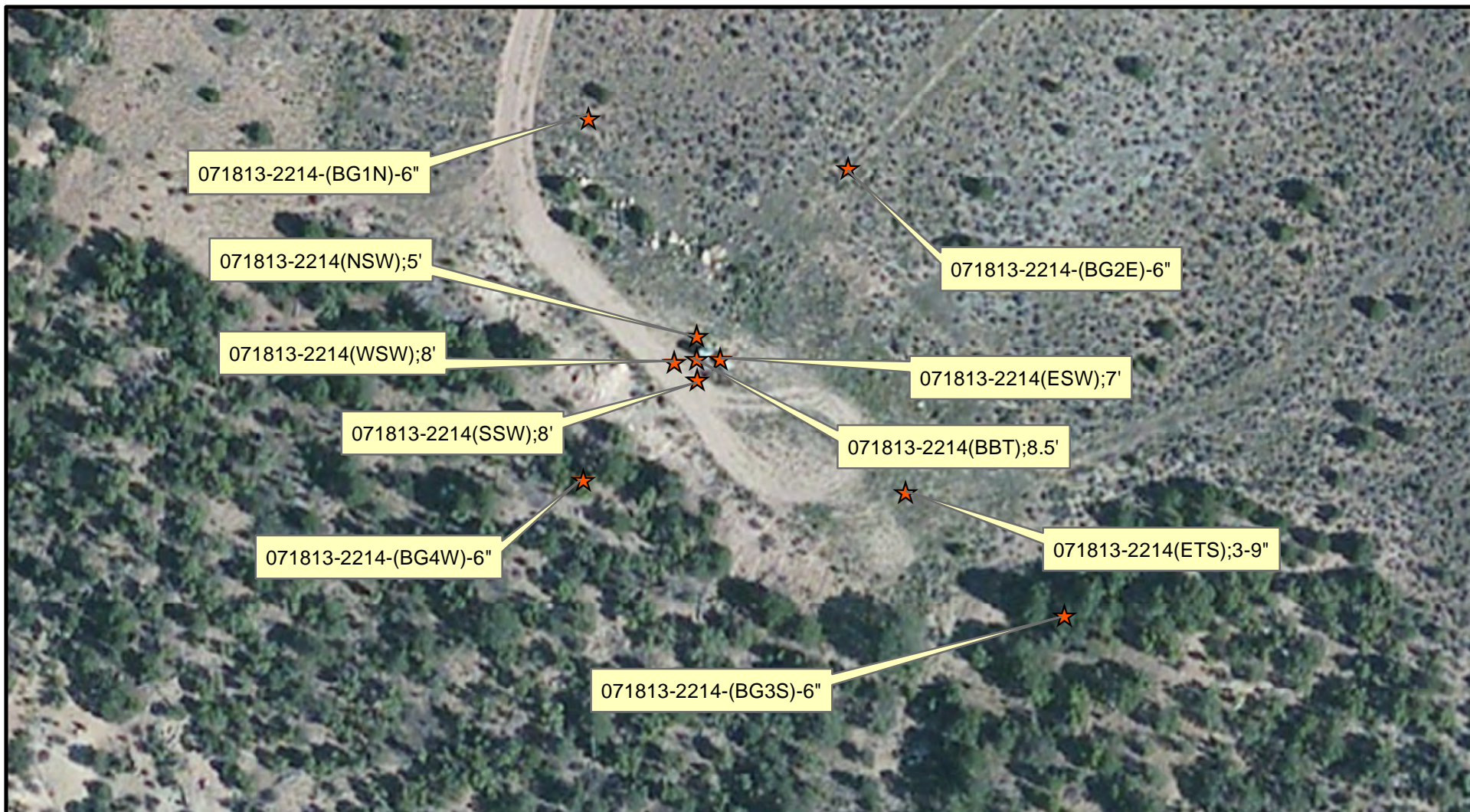
This Sundry Notice is also being submitted as the Notification of Completion for Remediation #TBD. If the information provided here is satisfactory, please provide documentation of the closure of this remediation project.

Attachments

Topographic Location Map (Figure 1)
2214 Aerial map with sample locations (Figure 2)
2214 Site Diagram of Excavation and sample locations (Figure 3)
Laboratory Results Summary Table 1 – 2214 Site Investigation (Table 1)
Attachment A- Laboratory Reports







Legend

★ Soil Sample Location

0 37.5 75 150 225 Feet



Rule Engineering, LLC
Solutions to Regulations for Industry



2214
Sample Location Map

DATE: 8/6/2013 JG FILE: \\Encana\Rangely 328 - Pit Closures\2013 Project\Field Investigations\2214\071813\130806 Sample Location Map.pdf FIGURE: 2



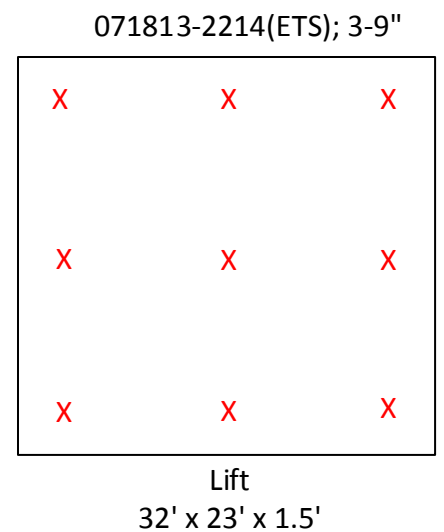
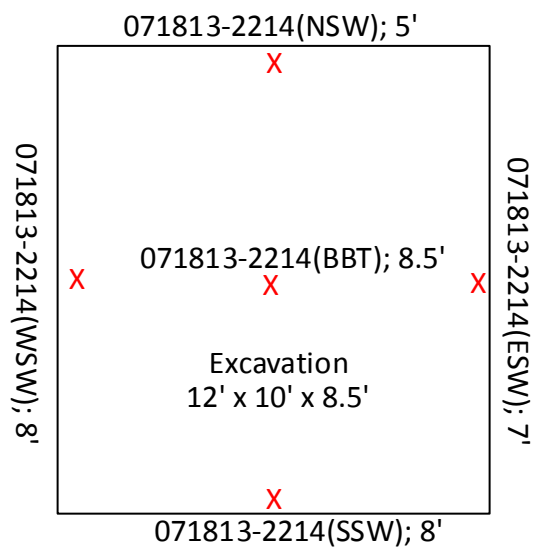
Direction of
Flow



Meter
House

Dehydrater

Well



Legend
X-Sample



Well: Figure 3. 2214 Site Diagram

Area: Lower Horse Draw Unit

Legal: NESW, Sec 34, 02S, 103W, 6th PM

Date: 07/31/13

Drawn By: Brad Ward

Revision Date:

Scale: None

Table 1: 2214 Site Clearance								Organics in Soil (mg/kg)																																				Analytes (BDL = Below Detection Limit; NA = Not Applicable; ND =Non Detect; NS = Not Sampled)																Metals in Soil (mg/kg (ppm))															
Sample ID	Location Number ID	COC ID	Date:	Lab	Sampler:	Allowable Concentration-->		Field Screen Reading (RD ppm)	500	NA	NA	0.17	85	100	175	1000	1000	0.22	0.22	2.2	0.022	22	0.022	1000	1000	0.22	23	1000	see below	<12				(6-9)	0.39	15000	15000	2 (mg/L)	NA	70	120000	23	3100	400	23	1600	390	390	23000																										
						Sample Matrix	Matrix Notes		TPH	TPH-GEO (E-C-CLB Low Fraction)	TPH-GEO (CLC-CB) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Acrophenene	Anthracene	Benzofluoranthene	Benzofluoranthene	Benzofluoranthene	Benzofluoranthene	Chrysene	Dibenzofluoranthene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Pyrene	EC (4 mmbs/cu or 2x background)	SAR (calculation)	Calcium	Magnesium	Sodium	pH	Arsenic	Barium - LDH5 True Total Barium	Barium - EPA Total Barium	Boron - Hot Water Soluble	Boron - EPA Total Boron	Cadmium	Chromium (III)	Chromium (VI)	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc																										
L647694-01	2214	071813-2214(BGIN)-6IN	7/18/2013	ESC	BW	Culvert	North Background	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																										
L647694-02	2214	071813-2214(BG2E)-6IN	7/18/2013	ESC	BW	Culvert	East Background	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																										
L647694-03	2214	071813-2214(BG3S)-6IN	7/18/2013	ESC	BW	Culvert	South Background	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																										
L647694-04	2214	071813-2214(BG4W)-6IN	7/18/2013	ESC	BW	Culvert	West Background	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																										
L647695-01	2214	071813-2214(NSW)-5FT	7/18/2013	ESC	BW	Culvert	North Side Wall sample at 5 feet after excavation	1	<4.0	<0.50	<4.0	<0.0025	<0.025	<0.0025	<0.0075	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																								
L647695-02	2214	071813-2214(ESW)-7FT	7/18/2013	ESC	BW	Culvert	East Side Wall sample at 7 feet after excavation	2	<4.0	<0.50	<4.0	<0.0025	<0.025	<0.0025	<0.0075	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																								
L647695-03	2214	071813-2214(SSW)-8FT	7/18/2013	ESC	BW	Culvert	South Side Wall sample at 8 feet after excavation	2	<4.0	<0.50	<4.0	<0.0025	<0.025	<0.0025	<0.0075	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																								
L647695-04	2214	071813-2214(WSW)-8FT	7/18/2013	ESC	BW	Culvert	West Side Wall sample at 8 feet after excavation	2	<4.0	<0.50	<4.0	<0.0025	<0.025	<0.0025	<0.0075	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																								
L647695-05	2214	071813-2214(BBT)-8.5FT	7/18/2013	ESC	BW	Culvert	Base below culvert at 8.5 feet after excavation	2	<4.0	<0.50	<4.0	<0.0025	<0.025	<0.0025	<0.0075	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS																							
L647695-06	2214	071813-2214(ETS)	7/18/2013	ESC	BW	Culvert	Composite Sample of Spoil	NS	6.1	<0.50	6.1	<0.0025	<0.025	<0.0025	<0.0075	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.020	<0.0060	0.57	2.9	NS	NS	NS	8.5	3.6	NS	NS	NS	<0.25	5.8	<2.0	5.8	4.6	<0.020	4.8	<1.0	<0.50	30																										

Appendix A



12065 Lebanon Rd.
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Est. 1970

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

Report Summary

Thursday July 25, 2013

Report Number: L647694


Samples Received: 07/20/13

Client Project: 2214

Description: 2214 - 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:


Jarred 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

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REPORT OF ANALYSIS

July 25, 2013

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

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214-(BG1N) 6IN
Collected By : Brad Ward
Collection Date : 07/18/13 16:26

ESC Sample # : L647694-01

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	5.4	1.0	mg/kg	6010B	07/24/13	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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REPORT OF ANALYSIS

July 25, 2013

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

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214-(BG2E) 6IN
Collected By : Brad Ward
Collection Date : 07/18/13 16:34

ESC Sample # : L647694-02

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	4.1	1.0	mg/kg	6010B	07/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

July 25, 2013

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

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214-(BG4W) 6IN
Collected By : Brad Ward
Collection Date : 07/18/13 16:51

ESC Sample # : L647694-03

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	4.7	1.0	mg/kg	6010B	07/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

July 25, 2013

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

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214-(BG3S) 6IN
Collected By : Brad Ward
Collection Date : 07/18/13 16:43

ESC Sample # : L647694-04

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	5.1	1.0	mg/kg	6010B	07/24/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 07/25/13 10:56 Printed: 07/25/13 10:56

Summary of Remarks For Samples Printed
07/25/13 at 10:56:56

TSR Signing Reports: 358
R5 - Desired TAT

Sample: L647694-01 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/25/13 10:56

Sample: L647694-02 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/25/13 10:56

Sample: L647694-03 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/25/13 10:56

Sample: L647694-04 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/25/13 10:56

Company Name/Address *ENCANRCO-RULEENG* Encana Oil & Gas 143 DIAMOND AVE PARACHUTE, CO 81635 *ENCANRCO-RULEENG*				Billing Information Charlie Jensen 143 Diamond Ave Parachute, CO 81635 <hr/> Report to: Charlie Jensen <hr/> E-mail to: Charlie Jensen, Shad Johnson, Brad Ward				Analysis/Container/Preservative						Chain of Custody Page_1_of_1_	
								<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEXGRO / DRO - 8260/8015</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SV8270PAHSIM - 8270SIM</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SPCON - 9050AMod</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SAR - Calc.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">RCRA8 Metals + Cu, Ni, and Zn - 6010/7470</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CR6SS - 3060A/7196</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CR3 - Calc.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">As</div> </div>						Prepared by J169 ENVIRONMENTAL SCIENCE CORP 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859	
Project Description: 2214 - SITE CLEARANCE				PHONE: 970-285-2735		Client Project No. 2214		ENCANRCO-RULEENG		CoCode (lab use only) *ENCANRCO-RULEENG* Template/Prelogin Shipped Via:					
FAX:		Site/Facility ID# 2214		P.O.#		Collected by: Brad Ward		Collected by (signature):							
Immediately Packed on Ice N__ Y__ X__		Rush? (Lab MUST be Notified) <input type="checkbox"/> Same Day.....200% <input type="checkbox"/> Next Day.....100% <input type="checkbox"/> Two Day.....50%		Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes		No of Cntrs									
Sample ID	Comp/Grab	Matrix	Depth	Date	Time	Cntrs							Remarks/contaminant	Sample # (lab only)	
071813-2214 -(BG1N)-6"	GRAB	SS	6"	7/18/13	1626	1							X	L647694-01	
071813-2214 -(BG2E)-6"	GRAB	SS	6"	7/18/13	1634	1							X	-02	
071813-2214 -(BG3N)-6"	GRAB	SS	6"			1							X		
071813-2214 -(BG4W)-6"	GRAB	SS	6"	7/18/13	1651	1							X	-03	
071813-2214-(B63S)-6"	Grab	SS	6"	7/18/13	1643	1							X	-04	

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

pH_____ Temp_____

Remarks:

Relinquisher by: (Signature)		Date: 7/19/13 Time: 7:15		Received by: (Signature)		Samples returned via: FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Other _____		Condition (lab use only) JR	
Relinquisher by: (Signature)		Date: Time:		Received by: (Signature)		Temp: 24°C Bottles Received: 4 = 40c		COC Seals Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Relinquisher by: (Signature)		Date: Time:		Received for lab by: (Signature)		Date: 7-20-13 Time: 0900		pH Checked: NCF:	



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

Report Summary

Tuesday July 30, 2013

Report Number: L647695


Samples Received: 07/20/13

Client Project: 2214

Description: 2214 - 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:


Jarred 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

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REPORT OF ANALYSIS

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

July 30, 2013

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214(NSW)-5FT
Collected By : Brad Ward
Collection Date : 07/18/13 14:10

ESC Sample # : L647695-01

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/23/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/23/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/23/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	103.		% Rec.	8021/8015	07/23/13	5
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021/8015	07/23/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/26/13	1
Surrogate recovery(%)						
o-Terphenyl	77.9		% Rec.	3546/DRO	07/26/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 07/30/13 09:57 Printed: 07/30/13 09:58



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

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

July 30, 2013

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214(ESW)-7FT
Collected By : Brad Ward
Collection Date : 07/18/13 14:19

ESC Sample # : L647695-02

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/23/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/23/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/23/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	103.		% Rec.	8021/8015	07/23/13	5
a,a,a-Trifluorotoluene(PID)	103.		% Rec.	8021/8015	07/23/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/26/13	1
Surrogate recovery(%)						
o-Terphenyl	86.0		% Rec.	3546/DRO	07/26/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 07/30/13 09:57 Printed: 07/30/13 09:58



12065 Lebanon Rd.
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

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

July 30, 2013

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214(SSW)-8FT
Collected By : Brad Ward
Collection Date : 07/18/13 14:28

ESC Sample # : L647695-03

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/23/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/23/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/23/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	104.		% Rec.	8021/8015	07/23/13	5
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021/8015	07/23/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/26/13	1
Surrogate recovery(%)						
o-Terphenyl	74.3		% Rec.	3546/DRO	07/26/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Est. 1970

REPORT OF ANALYSIS

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

July 30, 2013

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214(WSW)-8FT
Collected By : Brad Ward
Collection Date : 07/18/13 14:38

ESC Sample # : L647695-04

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/23/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/23/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/23/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	104.		% Rec.	8021/8015	07/23/13	5
a,a,a-Trifluorotoluene(PID)	103.		% Rec.	8021/8015	07/23/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/26/13	1
Surrogate recovery(%)						
o-Terphenyl	68.6		% Rec.	3546/DRO	07/26/13	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

July 30, 2013

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214(BBT)-8.5FT
Collected By : Brad Ward
Collection Date : 07/18/13 14:47

ESC Sample # : L647695-05

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/23/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/23/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/23/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	103.		% Rec.	8021/8015	07/23/13	5
a,a,a-Trifluorotoluene(PID)	103.		% Rec.	8021/8015	07/23/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/26/13	1
Surrogate recovery(%)						
o-Terphenyl	75.3		% Rec.	3546/DRO	07/26/13	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

July 30, 2013

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214(ETS)-3-9IN
Collected By : Brad Ward
Collection Date : 07/18/13 15:52

ESC Sample # : L647695-06
Site ID : 2214
Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/26/13	1
Chromium, Trivalent	5.8	2.0	mg/kg	Calc.	07/24/13	1
ORP	170		mV	2580 B-2011	07/26/13	1
pH	8.5		su	9045D	07/25/13	1
Sodium Adsorption Ratio	2.9			Calc.	07/26/13	1
Specific Conductance	570		umhos/cm	9050AMod	07/23/13	1
Mercury	BDL	0.020	mg/kg	7471	07/22/13	1
Arsenic	3.6	1.0	mg/kg	6010B	07/24/13	1
Barium	130	0.25	mg/kg	6010B	07/24/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/24/13	1
Chromium	5.8	0.50	mg/kg	6010B	07/24/13	1
Copper	5.8	1.0	mg/kg	6010B	07/24/13	1
Lead	4.6	0.25	mg/kg	6010B	07/24/13	1
Nickel	4.8	1.0	mg/kg	6010B	07/24/13	1
Selenium	BDL	1.0	mg/kg	6010B	07/24/13	1
Silver	BDL	0.50	mg/kg	6010B	07/24/13	1
Zinc	30.	1.5	mg/kg	6010B	07/24/13	1
Benzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Toluene	BDL	0.025	mg/kg	8021/8015	07/23/13	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	07/23/13	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	07/23/13	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	07/23/13	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	103.		% Rec.	8021/8015	07/23/13	5
a,a,a-Trifluorotoluene(PID)	103.		% Rec.	8021/8015	07/23/13	5
TPH (GC/FID) High Fraction	6.1	4.0	mg/kg	3546/DRO	07/27/13	1
Surrogate recovery(%)						
o-Terphenyl	69.0		% Rec.	3546/DRO	07/27/13	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L647695-06 (PH) - 8.5@20.4c



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Est. 1970

REPORT OF ANALYSIS

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

July 30, 2013

Date Received : July 20, 2013
Description : 2214 - Site Clearance
Sample ID : 071813-2214(ETS)-3-9IN
Collected By : Brad Ward
Collection Date : 07/18/13 15:52

ESC Sample # : L647695-06

Site ID : 2214

Project # : 2214

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/26/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/26/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/26/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/26/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/26/13	1
Surrogate Recovery						
Nitrobenzene-d5	87.8		% Rec.	8270C-SIM	07/26/13	1
2-Fluorobiphenyl	77.7		% Rec.	8270C-SIM	07/26/13	1
p-Terphenyl-d14	76.2		% Rec.	8270C-SIM	07/26/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L647695-06 (PH) - 8.5@20.4c

Summary of Remarks For Samples Printed
07/30/13 at 09:58:02

TSR Signing Reports: 358
R5 - Desired TAT

Sample: L647695-01 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/30/13 09:57
Sample: L647695-02 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/30/13 09:57
Sample: L647695-03 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/30/13 09:57
Sample: L647695-04 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/30/13 09:57
Sample: L647695-05 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/30/13 09:57
Sample: L647695-06 Account: ENCANRCO Received: 07/20/13 09:00 Due Date: 07/26/13 00:00 RPT Date: 07/30/13 09:57

Company Name/Address *ENCANRGO-RULEENG* Encana Oil & Gas 143 DIAMOND AVE PARACHUTE, CO 81635 *ENCANRGO-RULEENG*				Billing Information Charlie Jensen 143 Diamond Ave Parachute, CO 81635 Report to: Charlie Jensen E-mail to: Charlie Jensen, Shad Johnson, Brad Ward				Analysis/Container/Preservative								Chain of Custody Page_1_of_1_ Prepared by: J170 ENVIRONMENTAL SCIENCE CORP 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859																																																																																																																																																																																																																								
Project Description: 2214 - SITE CLEARANCE																																																																																																																																																																																																																																								
PHONE: 970-285-2735 FAX:		Client Project No. 2214		ENCANRGO-RULEENG																																																																																																																																																																																																																																				
Collected by: Brad Ward		Site/Facility ID# 2214		P.O.#																																																																																																																																																																																																																																				
Collected by (signature): 		Rush? (Lab MUST be Notified) <input type="checkbox"/> Same Day.....200% <input type="checkbox"/> Next Day.....100% <input type="checkbox"/> Two Day.....50%		Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		No of Cntrs																																																																																																																																																																																																																																		
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Comp/Grab</th> <th>Matrix</th> <th>Depth</th> <th>Date</th> <th>Time</th> <th>Cntrs</th> <th>BTEXGRO / DRO - 8260/8015</th> <th>SV8270PAHSIM - 8270SIM</th> <th>SPCON - 9050AMod</th> <th>SAR - Calc.</th> <th>RCRA8 Metals + Cu, Ni, and Zn - 6010/7470</th> <th>CR6SS - 3060A/7196</th> <th>CR3 - Calc.</th> <th>As</th> <th>Remarks/contaminant</th> <th>Sample # (lab only)</th> </tr> </thead> <tbody> <tr> <td>071813-2214(ASW) 5'</td> <td>GRAB</td> <td>SS</td> <td>5'</td> <td>7/18/13</td> <td>1410</td> <td>2</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>L64769S-01</td> </tr> <tr> <td>071813-2214(ESW) 7'</td> <td>GRAB</td> <td>SS</td> <td>7'</td> <td></td> <td>1419</td> <td>2</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-02</td> </tr> <tr> <td>071813-2214(SSW) 8'</td> <td>GRAB</td> <td>SS</td> <td>8'</td> <td></td> <td>1428</td> <td>2</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-03</td> </tr> <tr> <td>071813-2214(WSW) 8'</td> <td>GRAB</td> <td>SS</td> <td>8'</td> <td></td> <td>1438</td> <td>2</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-04</td> </tr> <tr> <td>071813-2214(BBT) 8.5'</td> <td>GRAB</td> <td>SS</td> <td>8.5'</td> <td></td> <td>1447</td> <td>2</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-05</td> </tr> <tr> <td>071813-2214(ETS) 3-9"</td> <td>COMP</td> <td>SS</td> <td>3-9"</td> <td></td> <td>1552</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td>-06</td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>												Sample ID	Comp/Grab	Matrix	Depth	Date	Time	Cntrs	BTEXGRO / DRO - 8260/8015	SV8270PAHSIM - 8270SIM	SPCON - 9050AMod	SAR - Calc.	RCRA8 Metals + Cu, Ni, and Zn - 6010/7470	CR6SS - 3060A/7196	CR3 - Calc.	As	Remarks/contaminant	Sample # (lab only)	071813-2214(ASW) 5'	GRAB	SS	5'	7/18/13	1410	2	X									L64769S-01	071813-2214(ESW) 7'	GRAB	SS	7'		1419	2	X									-02	071813-2214(SSW) 8'	GRAB	SS	8'		1428	2	X									-03	071813-2214(WSW) 8'	GRAB	SS	8'		1438	2	X									-04	071813-2214(BBT) 8.5'	GRAB	SS	8.5'		1447	2	X									-05	071813-2214(ETS) 3-9"	COMP	SS	3-9"		1552	3	X	X	X	X	X	X	X			-06																																																																																																						
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*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other _____

pH _____ Temp _____

Remarks:

5086 5824 0028 Flow _____ Other _____

Relinquisher by: (Signature) 		Date: 7/19/13 Time: 7:15		Received by: (Signature) 		Samples returned via: FedEx ___ UPS ___ Other ___		Condition (lab use only)	
Relinquisher by: (Signature)		Date: Time:		Received by: (Signature)		Temp: 2.4°C Bottles Received: 13:40Z		COC Seals Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Relinquisher by: (Signature)		Date: Time:		Received for lab by: (Signature) 		Date: 7-20-13 Time: 0900		pH Checked: NCF:	