

FORM
4
Rev 12/05

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109



DE	ET	OE	ES

SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry Information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 100185	4. Contact Name Charles Jensen	Complete the Attachment Checklist OP OGCC
2. Name of Operator: Encana Oil and Gas (USA)	Phone: 970-285-2735	
3. Address: 143 Diamond Ave City: Parachute State: CO Zip:81635	Fax: 970-285-2705	
5. API Number 05- 103-09229	OGCC Facility ID Number 315785	Survey Plat
6. Well/Facility Name: Lower Horse Draw Unit 2205	7. Well/Facility Number 2205	Directional Survey
8. Location (Qtr/Qtr, Sec, Twp, Rng, Meridian): SENE, Sec 21, 02S, 103W, 6th PM		Surface Eqpmt Diagram
9. County: Rio Blanco	10. Field Name: Lower Horse Draw Unit	Technical Info Page
11. Federal, Indian or State Lease Number: 45258		Other NOC

General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)			
Change of Surface Footage from Exterior Section Lines:		FNL/FSL	FEL/FWL
Change of Surface Footage to Exterior Section Lines:			
Change of Bottomhole Footage from Exterior Section Lines:			
Change of Bottomhole Footage to Exterior Section Lines:			attach directional survey
Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer			
Latitude	Distance to nearest property line	Distance to nearest bldg, public rd, utility or RR	
Longitude	Distance to nearest lease line	Is location in a High Density Area (rule 603b)?	Yes/No
Ground Elevation	Distance to nearest well same formation	Surface owner consultation date:	
GPS DATA:			
Date of Measurement PDOP Reading Instrument Operator's Name			
<input type="checkbox"/> CHANGE SPACING UNIT			<input type="checkbox"/> Remove from surface bond
Formation	Formation Code	Spacing order number	Signed surface use agreement attached
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):		<input type="checkbox"/> CHANGE WELL NAME	
Effective Date:		From:	
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual		To:	
		Effective Date:	
<input type="checkbox"/> ABANDONED LOCATION:		<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS	
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No		Date well shut in or temporarily abandoned:	
Is site ready for Inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No		Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date Ready for Inspection:		MIT required if shut in longer than two years. Date of last MIT	
<input type="checkbox"/> SPUD DATE:		<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)	
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK			
*submit cbl and cement job summaries			
Method used	Cementing tool setting/perf depth	Cement volume	Cement top
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.			
Final reclamation will commence on approximately Final reclamation is completed and site is ready for inspection.			

Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Report of Work Done	
Approximate Start Date:	Date Work Completed: 08/21/12	
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)		
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input checked="" type="checkbox"/> Status Update/Change of Remediation Plans
<input type="checkbox"/> Casing/Cementing Program Change	<input type="checkbox"/> Other:	for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Date: 6/27/13 Email: charles.jensen@Encana.com
Print Name: Charles Jensen Title: Environmental Field Coordinator

COGCC Approved: Title: Date:

CONDITIONS OF APPROVAL, IF ANY:

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

- | | |
|--|----------------------------|
| 1. OGCC Operator Number: 100185 | API Number: 05-103-09229 |
| 2. Name of Operator: Encana Oil and Gas (USA) | OGCC Facility ID # 315785 |
| 3. Well/Facility Name: Lower Horse Draw Unit #2205 | Well/Facility Number: 2205 |
| 4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENE, Sec 21, 02S, 103W, 6th PM | |

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

See Attached.

NARRATIVE ATTACHMENT

FORM 4 (SUNDRY NOTICE)

Culvert Pit Closure (LHDU 2205)

Document Date-6/27/13

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 #2205 (COGCC facility #315785, 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

August 21, 2012 - 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, 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 associated with 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 75 cubic yards of excavated material was removed from the pit and laid in a one (1) foot tall (62' x 33') lift. The excavated material was sampled by way of a nine (9) point composite sample. Following analytical sample review, the excavated material was pushed back into the excavated area. 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 #2205 well pad, had organic constituent concentrations of the excavated area and excavated material below or within COGCC Table 910-1. Please see Table 1 and Attachment A for analytical results.

Conclusion

Based on the site investigation and analytical results, the culvert pit associated with the Lower Horse Draw Unit #2205 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.



NARRATIVE ATTACHMENT

FORM 4 (SUNDRY NOTICE)

Culvert Pit Closure (LH DU 2205)

Document Date-6/27/13

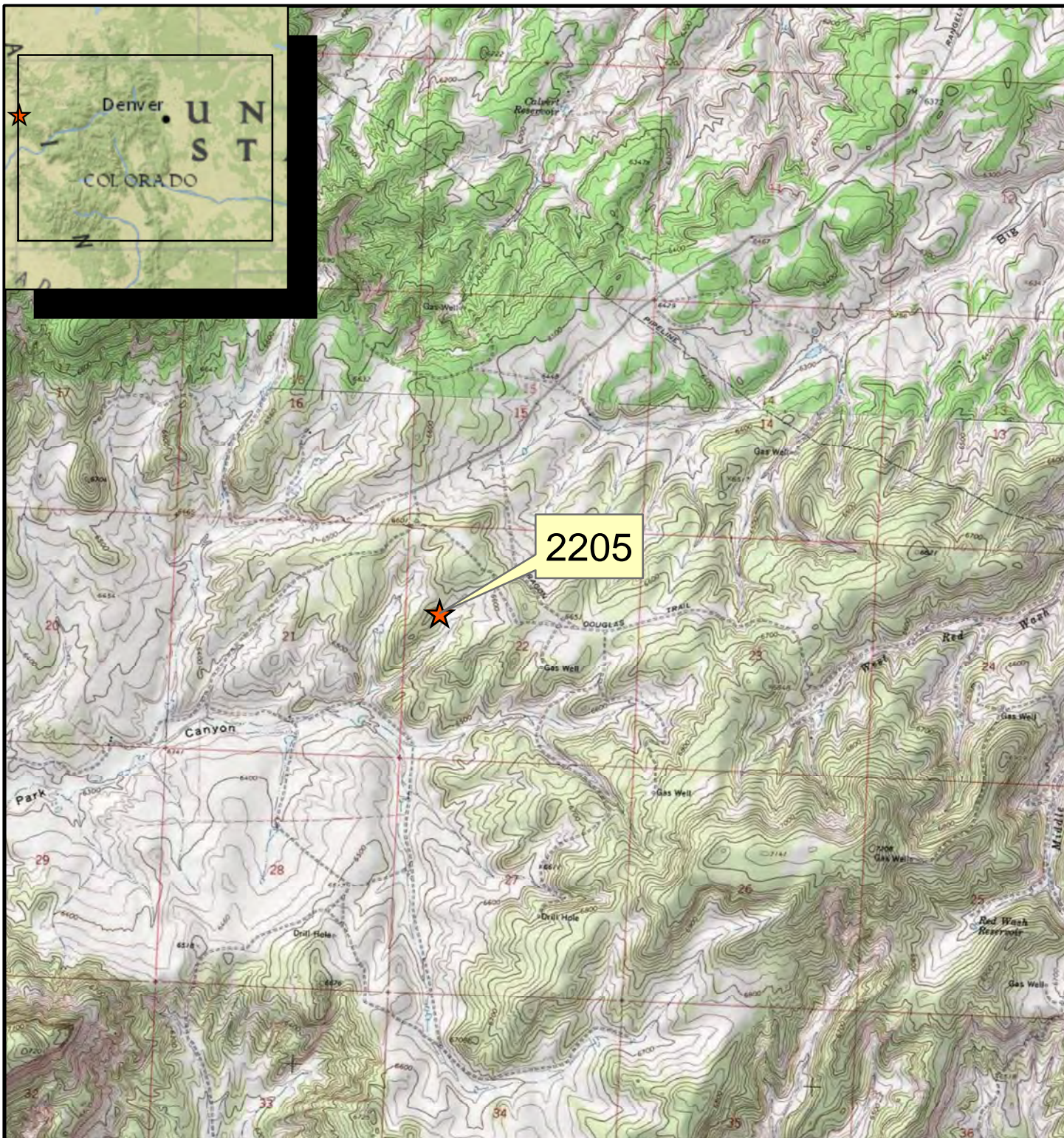
Notification of Completion

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)
2205 Aerial map with sample locations (Figure 2)
2205 Site Diagram of Excavation and sample locations (Figure 3)
Laboratory Results Summary Table 1 – 2205 Site Investigation (Table 1)
Attachment A- Laboratory Reports





Legend

★ 2205 Site Location



0 0.25 0.5 1 1.5 Miles

Rule Engineering, LLC
Solutions to Regulations for Industry



2205
Site Location Map

DATE: 9/06/2012 JG FILE: \\Encana\Figures\Rangely\2205\120906 Site Location Map.pdf

FIGURE: 1



Legend

★ Soil Sample Location

0 50 100 200 300 Feet



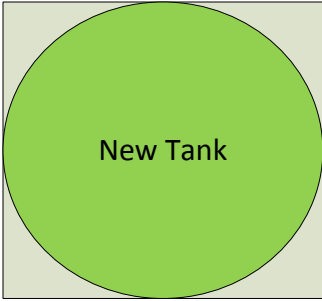
Rule Engineering, LLC
Solutions to Regulations for Industry



2205
Sample Location Map

DATE: 9/06/2012 JG FILE: \\EnCana\Figures\Rangely\2205\120906 Sample Location Map.pdf FIGURE: 2

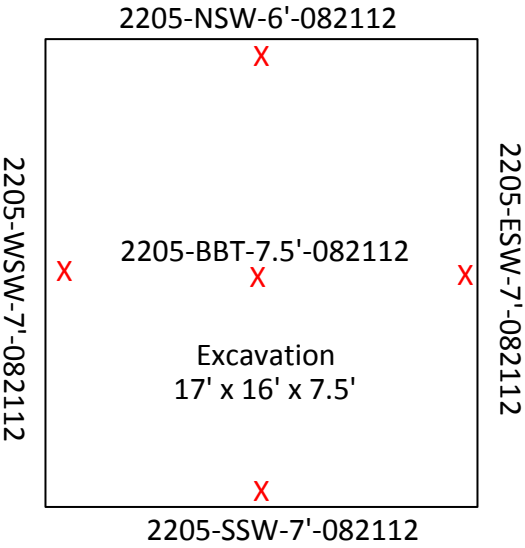
Meter
House



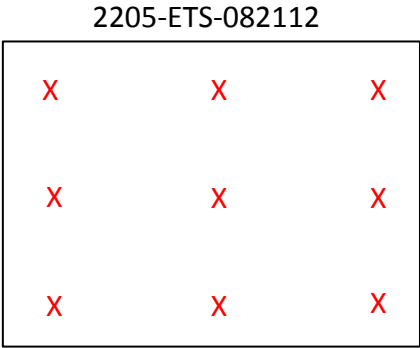
Direction of
Flow



Separator



Well



Lift
62' x 33'

Legend
X-Sample



Well: Figure 3. 2205 Site Diagram	
Area: Lower Horse Draw Unit	
Legal: SENE, Sec 21, 02S, 103W, 6 th PM	
Date: 10/03/12	Drawn By: Brad Ward
Revision Date:	Scale: None

Table 1. 2205 Site Clearance						Analytes (BDL = Below Detection Limit; NA = Not Applicable; ND =Non Detect; NS = Not Sampled)																																							
						Organics in Soil (mg/Kg)																		Metals in Soil (mg/kg [ppm])																					
						Allowable Concentration ->			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	70	120000	23	3100	400	23	1600	390	390	23000		
Sample ID	Location Number ID	COCID	Date:	Matrix Notes	Field Screen Reading (PID ppm)	TPH	TPH-GRO (G5-Cl0) Low Fraction	TPH-DRO (Cl0-C28) High Fraction	Benzene	Toluene	EthylBenzene	Xylenes - total	Acenaphthene	Anthracene	Benzo(A)anthracene	Benzo(B)fluoranthene	Benzo(K)fluoranthene	Benzo(A)pyrene	Chrysene	Dibenz(A,H)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Pyrene	EC (4 mmho/cn or 2x background)	SAE (calculation)	pH	Arsenic	Barium- EPA Total Barium	Cadmium	Chromium (III)	Chromium (VI)	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc					
2205-BBT-7.5 FT-082112	2205	L591834-09	8/21/2012	Base below culvert at 7.5 feet after excavation	26	6.9	<0.50	6.9	<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			
2205-BGIN-6 IN-082112	2205	L591834-01	8/21/2012	North Background			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		
2205-BG2E-6 IN-082112	2205	L591834-02	8/21/2012	East Background			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2205-BG3S-6 IN-082112	2205	L591834-03	8/21/2012	South Background			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	NS	
2205-BG4W-6 IN-082112	2205	L591834-04	8/21/2012	West Background			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2205-ESW-7 FT-082112	2205	L591834-06	8/21/2012	East Side Wall sample at 7 feet after excavation	35	<4.5	<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	
2205-ETS-082112	2205	L591834-10	8/21/2012	Composite sample of spoil		212	32	180	<0.025	<0.25	0.058	0.15	0.046	0.011	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.05	<0.0060	0.26	0.01	0.97	8	8.4	<1.0	80	<0.50	8.5	<2.0	18	18	0.021	13	<1.0	<0.50	98					
2205-NSW-6 FT-082112	2205	L591834-05	8/21/2012	North Side Wall sample at 6 feet after excavation	51.1	<4.5	<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
2205-SSW-7 FT-082112	2205	L591834-07	8/21/2012	South Side Wall sample at 7 feet after excavation	16.2	<4.5	<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
2205-WSW-7 FT-082112	2205	L591834-08	8/21/2012	West Side Wall sample at 7 feet after excavation	2340	182	130	52	0.044	0.28	0.36	0.81	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

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

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

Report Summary

Tuesday September 04, 2012

Report Number: L591834


Samples Received: 08/24/12

Client Project: 2205

Description: 2205 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

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

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

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-BG1N-6 IN-082112
Collected By : Brad Ward
Collection Date : 08/21/12 09:38

ESC Sample # : L591834-01

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	5.1	1.0	mg/kg	6010B	08/29/12	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

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-BG2E-6 IN-082112
Collected By : Brad Ward
Collection Date : 08/21/12 09:50

ESC Sample # : L591834-02

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	2.8	1.0	mg/kg	6010B	08/28/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-BG3S-6 IN-082112
Collected By : Brad Ward
Collection Date : 08/21/12 10:01

ESC Sample # : L591834-03

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	4.7	1.0	mg/kg	6010B	08/28/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-BG4W-6 IN-082112
Collected By : Brad Ward
Collection Date : 08/21/12 10:12

ESC Sample # : L591834-04

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	2.7	1.0	mg/kg	6010B	08/28/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-NSW-6 FT-082112
Collected By : Brad Ward
Collection Date : 08/21/12 10:51

ESC Sample # : L591834-05

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/25/12	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/25/12	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/25/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.0		% Rec.	8021/8015	08/25/12	5
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021/8015	08/25/12	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	08/29/12	1
Surrogate recovery(%)						
o-Terphenyl	52.6		% Rec.	3546/DRO	08/29/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-ESW-7 FT-082112
Collected By : Brad Ward
Collection Date : 08/21/12 11:00

ESC Sample # : L591834-06

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/25/12	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/25/12	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/25/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	94.9		% Rec.	8021/8015	08/25/12	5
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021/8015	08/25/12	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	08/29/12	1
Surrogate recovery(%)						
o-Terphenyl	54.1		% Rec.	3546/DRO	08/29/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-SSW-7 FT-082112
Collected By : Brad Ward
Collection Date : 08/21/12 11:08

ESC Sample # : L591834-07

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/25/12	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/25/12	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/25/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	94.8		% Rec.	8021/8015	08/25/12	5
a,a,a-Trifluorotoluene(PID)	99.9		% Rec.	8021/8015	08/25/12	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	08/29/12	1
Surrogate recovery(%)						
o-Terphenyl	58.1		% Rec.	3546/DRO	08/29/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-WSW-7 FT-082112
Collected By : Brad Ward
Collection Date : 08/21/12 11:16

ESC Sample # : L591834-08

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.044	0.025	mg/kg	8021/8015	08/25/12	50
Toluene	0.28	0.25	mg/kg	8021/8015	08/25/12	50
Ethylbenzene	0.36	0.025	mg/kg	8021/8015	08/25/12	50
Total Xylene	0.81	0.075	mg/kg	8021/8015	08/25/12	50
TPH (GC/FID) Low Fraction	130	5.0	mg/kg	GRO	08/25/12	50
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.7		% Rec.	8021/8015	08/25/12	50
a,a,a-Trifluorotoluene(PID)	99.9		% Rec.	8021/8015	08/25/12	50
TPH (GC/FID) High Fraction	52.	4.0	mg/kg	3546/DRO	08/29/12	1
Surrogate recovery(%)						
o-Terphenyl	55.3		% Rec.	3546/DRO	08/29/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-BBT-7.5 FT-082112
Collected By : Brad Ward
Collection Date : 08/21/12 11:23

ESC Sample # : L591834-09

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Toluene	BDL	0.025	mg/kg	8021/8015	08/25/12	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	08/25/12	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	08/25/12	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	08/25/12	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	95.0		% Rec.	8021/8015	08/25/12	5
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021/8015	08/25/12	5
TPH (GC/FID) High Fraction	6.9	4.0	mg/kg	3546/DRO	08/29/12	1
Surrogate recovery(%)						
o-Terphenyl	59.9		% Rec.	3546/DRO	08/29/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-ETS-082112
Collected By : Brad Ward
Collection Date : 08/21/12 13:05

ESC Sample # : L591834-10

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	08/29/12	1
Chromium, Trivalent	8.5	0.50	mg/kg	Calc.	08/29/12	1
ORP	130		mV	2580	08/28/12	1
pH	8.4		su	9045D	08/29/12	1
Sodium Adsorption Ratio	8.0			Calc.	08/30/12	1
Specific Conductance	970		umhos/cm	9050AMod	08/28/12	1
Mercury	0.021	0.020	mg/kg	7471	08/25/12	1
Arsenic	BDL	1.0	mg/kg	6010B	08/29/12	1
Barium	80.	0.25	mg/kg	6010B	08/29/12	1
Cadmium	BDL	0.50	mg/kg	6010B	08/29/12	2
Chromium	8.5	0.50	mg/kg	6010B	08/29/12	1
Copper	18.	1.0	mg/kg	6010B	08/29/12	1
Lead	18.	0.25	mg/kg	6010B	08/29/12	1
Nickel	13.	1.0	mg/kg	6010B	08/29/12	1
Selenium	BDL	1.0	mg/kg	6010B	08/29/12	1
Silver	BDL	0.50	mg/kg	6010B	08/29/12	1
Zinc	98.	1.5	mg/kg	6010B	08/29/12	1
Benzene	BDL	0.025	mg/kg	8021/8015	08/25/12	50
Toluene	BDL	0.25	mg/kg	8021/8015	08/25/12	50
Ethylbenzene	0.058	0.025	mg/kg	8021/8015	08/25/12	50
Total Xylene	0.15	0.075	mg/kg	8021/8015	08/25/12	50
TPH (GC/FID) Low Fraction	32.	5.0	mg/kg	GRO	08/25/12	50
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	94.8		% Rec.	8021/8015	08/25/12	50
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021/8015	08/25/12	50
TPH (GC/FID) High Fraction	180	4.0	mg/kg	3546/DRO	08/31/12	1
Surrogate recovery(%)						
o-Terphenyl	51.3		% Rec.	3546/DRO	08/31/12	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.011	0.0060	mg/kg	8270C-SIM	08/28/12	1
Acenaphthene	0.046	0.0060	mg/kg	8270C-SIM	08/28/12	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L591834-10 (PH) - 8.4@19.2c



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REPORT OF ANALYSIS

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

September 04, 2012

Date Received : August 24, 2012
Description : 2205 Site Clearance
Sample ID : 2205-ETS-082112
Collected By : Brad Ward
Collection Date : 08/21/12 13:05

ESC Sample # : L591834-10

Site ID : 2205

Project # : 2205

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Fluorene	0.050	0.0060	mg/kg	8270C-SIM	08/28/12	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Naphthalene	0.26	0.12	mg/kg	8270C-SIM	08/29/12	20
Phenanthrene	0.071	0.0060	mg/kg	8270C-SIM	08/28/12	1
Pyrene	0.010	0.0060	mg/kg	8270C-SIM	08/28/12	1
1-Methylnaphthalene	0.54	0.12	mg/kg	8270C-SIM	08/29/12	20
2-Methylnaphthalene	0.60	0.12	mg/kg	8270C-SIM	08/29/12	20
2-Chloronaphthalene	BDL	0.0060	mg/kg	8270C-SIM	08/28/12	1
Surrogate Recovery						
Nitrobenzene-d5	1130		% Rec.	8270C-SIM	08/29/12	20
2-Fluorobiphenyl	99.0		% Rec.	8270C-SIM	08/28/12	1
p-Terphenyl-d14	78.0		% Rec.	8270C-SIM	08/28/12	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L591834-10 (PH) - 8.4@19.2c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L591834-10	WG609595	SAMP	Barium	R2323173	J5
	WG609595	SAMP	Cadmium	R2323173	O
	WG609595	SAMP	Lead	R2323173	J3J5
	WG609595	SAMP	Zinc	R2323173	J5
	WG609373	SAMP	Fluorene	R2319573	J6
	WG609373	SAMP	Phenanthrene	R2319573	J6
	WG609373	SAMP	Nitrobenzene-d5	R2319573	J7
	WG609764	SAMP	pH	R2321933	T8
	WG609547	SAMP	Chromium, Hexavalent	R2322013	J6

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
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.



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September 04, 2012

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Mercury	< .02	mg/kg			WG609460	08/25/12 14:48
Benzene	< .0005	mg/kg			WG609444	08/25/12 02:10
Ethylbenzene	< .0005	mg/kg			WG609444	08/25/12 02:10
Toluene	< .005	mg/kg			WG609444	08/25/12 02:10
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG609444	08/25/12 02:10
Total Xylene	< .0015	mg/kg			WG609444	08/25/12 02:10
a,a,a-Trifluorotoluene(FID)		% Rec.	95.36	59-128	WG609444	08/25/12 02:10
a,a,a-Trifluorotoluene(PID)		% Rec.	100.5	54-144	WG609444	08/25/12 02:10
1-Methylnaphthalene	< .006	mg/kg			WG609373	08/27/12 18:05
2-Chloronaphthalene	< .006	mg/kg			WG609373	08/27/12 18:05
2-Methylnaphthalene	< .006	mg/kg			WG609373	08/27/12 18:05
Acenaphthene	< .006	mg/kg			WG609373	08/27/12 18:05
Acenaphthylene	< .006	mg/kg			WG609373	08/27/12 18:05
Anthracene	< .006	mg/kg			WG609373	08/27/12 18:05
Benzo(a)anthracene	< .006	mg/kg			WG609373	08/27/12 18:05
Benzo(a)pyrene	< .006	mg/kg			WG609373	08/27/12 18:05
Benzo(b)fluoranthene	< .006	mg/kg			WG609373	08/27/12 18:05
Benzo(g,h,i)perylene	< .006	mg/kg			WG609373	08/27/12 18:05
Benzo(k)fluoranthene	< .006	mg/kg			WG609373	08/27/12 18:05
Chrysene	< .006	mg/kg			WG609373	08/27/12 18:05
Dibenz(a,h)anthracene	< .006	mg/kg			WG609373	08/27/12 18:05
Fluoranthene	< .006	mg/kg			WG609373	08/27/12 18:05
Fluorene	< .006	mg/kg			WG609373	08/27/12 18:05
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG609373	08/27/12 18:05
Naphthalene	< .006	mg/kg			WG609373	08/27/12 18:05
Phenanthrene	< .006	mg/kg			WG609373	08/27/12 18:05
Pyrene	< .006	mg/kg			WG609373	08/27/12 18:05
2-Fluorobiphenyl		% Rec.	75.54	34-129	WG609373	08/27/12 18:05
Nitrobenzene-d5		% Rec.	64.17	14-141	WG609373	08/27/12 18:05
p-Terphenyl-d14		% Rec.	78.43	25-139	WG609373	08/27/12 18:05
Specific Conductance	0	umhos/cm			WG609529	08/28/12 14:00
Chromium,Hexavalent	< 2	mg/kg			WG609547	08/29/12 10:55
TPH (GC/FID) High Fraction	< 4	ppm			WG609496	08/28/12 11:25
o-Terphenyl		% Rec.	62.98	50-150	WG609496	08/28/12 11:25
Arsenic	< 1	mg/kg			WG609736	08/28/12 19:05
Arsenic	< 1	mg/kg			WG609595	08/29/12 11:39
Barium	< .25	mg/kg			WG609595	08/29/12 11:39
Cadmium	< .25	mg/kg			WG609595	08/29/12 11:39
Chromium	< .5	mg/kg			WG609595	08/29/12 11:39
Copper	< 1	mg/kg			WG609595	08/29/12 11:39
Lead	< .25	mg/kg			WG609595	08/29/12 11:39
Nickel	< 1	mg/kg			WG609595	08/29/12 11:39
Selenium	< 1	mg/kg			WG609595	08/29/12 11:39
Silver	< .5	mg/kg			WG609595	08/29/12 11:39
Zinc	< 1.5	mg/kg			WG609595	08/29/12 11:39

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
TPH (GC/FID) High Fraction	< 4	ppm			WG609500	08/29/12 15:48
o-Terphenyl		% Rec.	62.86	50-150	WG609500	08/29/12 15:48
TPH (GC/FID) High Fraction	< 4	ppm			WG609921	08/30/12 21:33
o-Terphenyl		% Rec.	59.68	50-150	WG609921	08/30/12 21:33

Analyte	Units	Result	Duplicate		Limit	Ref Samp	Batch
			Duplicate	RPD			
Mercury	mg/kg	0.0270	0.0320	16.2	20	L591835-02	WG609460
Specific Conductance	umhos/cm	1000	1000	3.92	20	L591355-10	WG609529
Specific Conductance	umhos/cm	730.	760.	4.44	20	L591939-02	WG609529
ORP	mV	46.0	48.0	4.26	20	L591421-34	WG609530
ORP	mV	130.	130.	0	20	L591826-10	WG609530
pH	su	8.30	8.20	1.45*	1	L591496-01	WG609764
pH	su	9.00	9.10	1.44*	1	L591939-02	WG609764
Chromium,Hexavalent	mg/kg	0	0	0	20	L591421-32	WG609547
Chromium,Hexavalent	mg/kg	0	0	0	20	L591834-10	WG609547
Arsenic	mg/kg	5.00	5.10	2.78	20	L591834-01	WG609736
Arsenic	mg/kg	0	0	0	20	L591834-10	WG609595
Barium	mg/kg	87.0	80.0	8.15	20	L591834-10	WG609595
Chromium	mg/kg	7.60	8.50	10.5	20	L591834-10	WG609595
Copper	mg/kg	17.0	18.0	3.39	20	L591834-10	WG609595
Lead	mg/kg	24.0	18.0	29.4*	20	L591834-10	WG609595
Nickel	mg/kg	13.0	13.0	2.28	20	L591834-10	WG609595
Selenium	mg/kg	0	0	0	20	L591834-10	WG609595
Silver	mg/kg	0	0	0	20	L591834-10	WG609595
Zinc	mg/kg	110.	98.0	10.6	20	L591834-10	WG609595
Cadmium	mg/kg	0	0	0	20	L591834-10	WG609595

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Mercury	mg/kg	12.4	13.9	112.	71.6-128	WG609460
Benzene	mg/kg	.05	0.0456	91.3	76-113	WG609444
Ethylbenzene	mg/kg	.05	0.0500	100.	78-115	WG609444
Toluene	mg/kg	.05	0.0499	99.8	76-114	WG609444
Total Xylene	mg/kg	.15	0.151	101.	81-118	WG609444
a,a,a-Trifluorotoluene(PID)				99.90	54-144	WG609444
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.37	97.6	67-135	WG609444
a,a,a-Trifluorotoluene(FID)				101.4	59-128	WG609444
1-Methylnaphthalene	mg/kg	.033	0.0229	69.3	48-113	WG609373

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
2-Chloronaphthalene	mg/kg	.033	0.0241	73.0	51-114	WG609373
2-Methylnaphthalene	mg/kg	.033	0.0230	69.7	44-109	WG609373
Acenaphthene	mg/kg	.033	0.0243	73.7	52-108	WG609373
Acenaphthylene	mg/kg	.033	0.0271	82.2	51-110	WG609373
Anthracene	mg/kg	.033	0.0260	78.7	58-120	WG609373
Benzo(a)anthracene	mg/kg	.033	0.0277	83.8	54-110	WG609373
Benzo(a)pyrene	mg/kg	.033	0.0259	78.6	56-118	WG609373
Benzo(b)fluoranthene	mg/kg	.033	0.0276	83.8	55-114	WG609373
Benzo(g,h,i)perylene	mg/kg	.033	0.0257	77.9	48-130	WG609373
Benzo(k)fluoranthene	mg/kg	.033	0.0249	75.3	55-122	WG609373
Chrysene	mg/kg	.033	0.0272	82.3	57-118	WG609373
Dibenz(a,h)anthracene	mg/kg	.033	0.0259	78.5	53-122	WG609373
Fluoranthene	mg/kg	.033	0.0263	79.7	58-118	WG609373
Fluorene	mg/kg	.033	0.0254	77.1	54-109	WG609373
Indeno(1,2,3-cd)pyrene	mg/kg	.033	0.0263	79.7	51-125	WG609373
Naphthalene	mg/kg	.033	0.0221	66.8	45-105	WG609373
Phenanthrene	mg/kg	.033	0.0256	77.5	53-114	WG609373
Pyrene	mg/kg	.033	0.0272	82.5	53-121	WG609373
2-Fluorobiphenyl				76.01	34-129	WG609373
Nitrobenzene-d5				66.17	14-141	WG609373
p-Terphenyl-d14				74.39	25-139	WG609373
Specific Conductance	umhos/cm	1050	1070	102.	85-115	WG609529
ORP	mV	228	225.	98.7	95.6-104.	WG609530
pH	su	6.03	6.02	99.8	98-101	WG609764
Chromium,Hexavalent	mg/kg	203	133.	65.5	50-150	WG609547
TPH (GC/FID) High Fraction	ppm	60	45.4	75.7	50-150	WG609496
o-Terphenyl				61.28	50-150	WG609496
Arsenic	mg/kg	237	209.	88.2	83.1-117	WG609736
Arsenic	mg/kg	237	234.	98.7	83.1-117	WG609595
Barium	mg/kg	252	263.	104.	84.1-116	WG609595
Cadmium	mg/kg	191	192.	101.	83.2-117	WG609595
Chromium	mg/kg	128	129.	101.	81.3-118	WG609595
Copper	mg/kg	123	130.	106.	83.7-116	WG609595
Lead	mg/kg	103	103.	100.	83.1-117	WG609595
Nickel	mg/kg	118	125.	106.	82-118	WG609595
Selenium	mg/kg	110	111.	101.	78.7-122	WG609595
Silver	mg/kg	47.3	46.2	97.7	66.2-134	WG609595
Zinc	mg/kg	183	184.	101.	82-118	WG609595
TPH (GC/FID) High Fraction	ppm	60	38.6	64.3	50-150	WG609500
o-Terphenyl				55.49	50-150	WG609500
TPH (GC/FID) High Fraction	ppm	60	41.8	69.7	50-150	WG609921

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Quality Assurance Report
Level II

L591834

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

September 04, 2012

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
o-Terphenyl					61.27		50-150	
Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/kg	0.0497	0.0456	99.0	76-113	8.51	20	WG609444
Ethylbenzene	mg/kg	0.0548	0.0500	110.	78-115	9.30	20	WG609444
Toluene	mg/kg	0.0534	0.0499	107.	76-114	6.91	20	WG609444
Total Xylene	mg/kg	0.162	0.151	108.	81-118	6.98	20	WG609444
a,a,a-Trifluorotoluene(PID)				99.95	54-144			WG609444
TPH (GC/FID) Low Fraction	mg/kg	5.36	5.37	97.0	67-135	0.140	20	WG609444
a,a,a-Trifluorotoluene(FID)				101.4	59-128			WG609444
1-Methylnaphthalene	mg/kg	0.0234	0.0229	71.0	48-113	2.31	24	WG609373
2-Chloronaphthalene	mg/kg	0.0245	0.0241	74.0	51-114	1.73	24	WG609373
2-Methylnaphthalene	mg/kg	0.0229	0.0230	69.0	44-109	0.349	24	WG609373
Acenaphthene	mg/kg	0.0246	0.0243	74.0	52-108	0.954	22	WG609373
Acenaphthylene	mg/kg	0.0271	0.0271	82.0	51-110	0.178	21	WG609373
Anthracene	mg/kg	0.0262	0.0260	79.0	58-120	0.825	20	WG609373
Benzo(a)anthracene	mg/kg	0.0280	0.0277	85.0	54-110	1.26	22	WG609373
Benzo(a)pyrene	mg/kg	0.0259	0.0259	78.0	56-118	0.128	21	WG609373
Benzo(b)fluoranthene	mg/kg	0.0259	0.0276	78.0	55-114	6.43	20	WG609373
Benzo(g,h,i)perylene	mg/kg	0.0256	0.0257	78.0	48-130	0.263	20	WG609373
Benzo(k)fluoranthene	mg/kg	0.0270	0.0249	82.0	55-122	8.17	25	WG609373
Chrysene	mg/kg	0.0269	0.0272	82.0	57-118	0.902	20	WG609373
Dibenz(a,h)anthracene	mg/kg	0.0251	0.0259	76.0	53-122	3.33	20	WG609373
Fluoranthene	mg/kg	0.0268	0.0263	81.0	58-118	1.85	20	WG609373
Fluorene	mg/kg	0.0248	0.0254	75.0	54-109	2.57	20	WG609373
Indeno(1,2,3-cd)pyrene	mg/kg	0.0258	0.0263	78.0	51-125	2.11	21	WG609373
Naphthalene	mg/kg	0.0220	0.0221	67.0	45-105	0.0804	24	WG609373
Phenanthrene	mg/kg	0.0263	0.0256	80.0	53-114	2.86	20	WG609373
Pyrene	mg/kg	0.0269	0.0272	82.0	53-121	1.13	20	WG609373
2-Fluorobiphenyl				75.37	34-129			WG609373
Nitrobenzene-d5				66.02	14-141			WG609373
p-Terphenyl-d14				75.34	25-139			WG609373
Specific Conductance	umhos/	1070	1070	102.	85-115	0	20	WG609529
ORP	mV	226.	225.	99.0	95.6-104.	0.443	20	WG609530
pH	su	6.02	6.02	100.	98-101	0	20	WG609764
Chromium,Hexavalent	mg/kg	124.	133.	61.0	50-150	7.00	20	WG609547
TPH (GC/FID) High Fraction	ppm	45.1	45.4	75.0	50-150	0.626	23	WG609496
o-Terphenyl				61.73	50-150			WG609496
TPH (GC/FID) High Fraction	ppm	39.6	38.6	66.0	50-150	2.72	25	WG609500
o-Terphenyl				52.32	50-150			WG609500
TPH (GC/FID) High Fraction	ppm	41.1	41.8	68.0	50-150	1.68	25	WG609921

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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
o-Terphenyl				62.06	50-150			
Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Mercury	mg/kg	0.302	0.0320	.25	108.	80-120	L591835-02	WG609460
Benzene	mg/kg	0.243	0	.05	97.3	32-137	L591830-01	WG609444
Ethylbenzene	mg/kg	0.269	0	.05	107.	10-150	L591830-01	WG609444
Toluene	mg/kg	0.268	0	.05	107.	20-142	L591830-01	WG609444
Total Xylene	mg/kg	0.801	0	.15	107.	16-141	L591830-01	WG609444
a,a,a-Trifluorotoluene(PID)					98.71	54-144		WG609444
TPH (GC/FID) Low Fraction	mg/kg	24.1	0	5.5	87.6	55-109	L591830-01	WG609444
a,a,a-Trifluorotoluene(FID)					100.1	59-128		WG609444
2-Chloronaphthalene	mg/kg	0.0292	0	.033	88.6	31-153	L591834-10	WG609373
Acenaphthene	mg/kg	0.0715	0.0460	.033	77.3	43-133	L591834-10	WG609373
Acenaphthylene	mg/kg	0.0401	0	.033	122.	42-146	L591834-10	WG609373
Anthracene	mg/kg	0.0340	0.0110	.033	69.8	38-153	L591834-10	WG609373
Benzo(a)anthracene	mg/kg	0.0321	0	.033	97.2	31-142	L591834-10	WG609373
Benzo(a)pyrene	mg/kg	0.0292	0	.033	88.6	26-152	L591834-10	WG609373
Benzo(b)fluoranthene	mg/kg	0.0287	0	.033	87.0	10-188	L591834-10	WG609373
Benzo(g,h,i)perylene	mg/kg	0.0265	0	.033	80.4	10-176	L591834-10	WG609373
Benzo(k)fluoranthene	mg/kg	0.0296	0	.033	89.6	22-163	L591834-10	WG609373
Chrysene	mg/kg	0.0309	0	.033	93.6	26-146	L591834-10	WG609373
Dibenz(a,h)anthracene	mg/kg	0.0272	0	.033	82.3	10-160	L591834-10	WG609373
Fluoranthene	mg/kg	0.0329	0	.033	99.7	23-160	L591834-10	WG609373
Fluorene	mg/kg	0.0661	0.0500	.033	48.8	44-143	L591834-10	WG609373
Indeno(1,2,3-cd)pyrene	mg/kg	0.0265	0	.033	80.2	10-157	L591834-10	WG609373
Phenanthrene	mg/kg	0.0878	0.0710	.033	50.8	23-164	L591834-10	WG609373
Pyrene	mg/kg	0.0354	0.0100	.033	76.9	12-170	L591834-10	WG609373
2-Fluorobiphenyl					102.9	34-129		WG609373
p-Terphenyl-d14					91.85	25-139		WG609373
Chromium,Hexavalent	mg/kg	6.60	0	20	33.0*	50-150	L591834-10	WG609547
TPH (GC/FID) High Fraction	ppm	36.9	0	60	61.4	50-150	L591910-03	WG609496
o-Terphenyl					50.28	50-150		WG609496
Arsenic	mg/kg	62.2	5.10	50	114.	75-125	L591834-01	WG609736
Arsenic	mg/kg	47.4	0	50	94.8	75-125	L591834-10	WG609595
Barium	mg/kg	141.	80.0	50	122.	75-125	L591834-10	WG609595
Chromium	mg/kg	56.6	8.50	50	96.2	75-125	L591834-10	WG609595
Copper	mg/kg	68.7	18.0	50	101.	75-125	L591834-10	WG609595
Lead	mg/kg	67.5	18.0	50	99.0	75-125	L591834-10	WG609595
Nickel	mg/kg	61.6	13.0	50	97.2	75-125	L591834-10	WG609595
Selenium	mg/kg	47.0	0	50	94.0	75-125	L591834-10	WG609595
Silver	mg/kg	48.1	0	50	96.2	75-125	L591834-10	WG609595
Zinc	mg/kg	160.	98.0	50	124.	75-125	L591834-10	WG609595
TPH (GC/FID) High Fraction	ppm	40.4	0	60	67.3	50-150	L591853-09	WG609500

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Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
o-Terphenyl					57.55	50-150		
Cadmium	mg/kg	49.1	0	50	98.2	75-125	L591834-10	WG609595
TPH (GC/FID) High Fraction	ppm	53.9	12.0	60	69.8	50-150	L592133-01	WG609921
o-Terphenyl					46.30*	50-150		WG609921

Analyte	Units	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec					
Mercury	mg/kg	0.266	0.302	93.6	80-120	12.7	20	L591835-02	WG609460
Benzene	mg/kg	0.239	0.243	95.6	32-137	1.68	39	L591830-01	WG609444
Ethylbenzene	mg/kg	0.258	0.269	103.	10-150	4.07	44	L591830-01	WG609444
Toluene	mg/kg	0.261	0.268	104.	20-142	2.77	42	L591830-01	WG609444
Total Xylene	mg/kg	0.763	0.801	102.	16-141	4.79	46	L591830-01	WG609444
a,a,a-Trifluorotoluene(PID)				99.31	54-144				WG609444
TPH (GC/FID) Low Fraction	mg/kg	23.7	24.1	86.3	55-109	1.52	20	L591830-01	WG609444
a,a,a-Trifluorotoluene(FID)				100.4	59-128				WG609444
2-Chloronaphthalene	mg/kg	0.0281	0.0292	85.1	31-153	4.10	22	L591834-10	WG609373
Acenaphthene	mg/kg	0.0603	0.0715	43.4	43-133	17.0	26	L591834-10	WG609373
Acenaphthylene	mg/kg	0.0374	0.0401	113.	42-146	7.15	22	L591834-10	WG609373
Anthracene	mg/kg	0.0310	0.0340	60.5	38-153	9.47	27	L591834-10	WG609373
Benzo(a)anthracene	mg/kg	0.0305	0.0321	92.4	31-142	5.07	31	L591834-10	WG609373
Benzo(a)pyrene	mg/kg	0.0275	0.0292	83.2	26-152	6.29	32	L591834-10	WG609373
Benzo(b)fluoranthene	mg/kg	0.0278	0.0287	84.2	10-188	3.36	33	L591834-10	WG609373
Benzo(g,h,i)perylene	mg/kg	0.0244	0.0265	73.8	10-176	8.59	30	L591834-10	WG609373
Benzo(k)fluoranthene	mg/kg	0.0280	0.0296	84.9	22-163	5.45	29	L591834-10	WG609373
Chrysene	mg/kg	0.0295	0.0309	89.3	26-146	4.66	30	L591834-10	WG609373
Dibenz(a,h)anthracene	mg/kg	0.0261	0.0272	79.1	10-160	3.99	39	L591834-10	WG609373
Fluoranthene	mg/kg	0.0294	0.0329	89.1	23-160	11.2	22	L591834-10	WG609373
Fluorene	mg/kg	0.0561	0.0661	18.4*	44-143	16.4	23	L591834-10	WG609373
Indeno(1,2,3-cd)pyrene	mg/kg	0.0250	0.0265	75.8	10-157	5.59	40	L591834-10	WG609373
Phenanthrene	mg/kg	0.0698	0.0878	0*	23-164	22.9	25	L591834-10	WG609373
Pyrene	mg/kg	0.0334	0.0354	70.8	12-170	5.91	24	L591834-10	WG609373
2-Fluorobiphenyl				93.52	34-129				WG609373
p-Terphenyl-d14				87.33	25-139				WG609373
Chromium,Hexavalent	mg/kg	6.56	6.60	32.8*	50-150	0.608	20	L591834-10	WG609547
TPH (GC/FID) High Fraction	ppm	35.3	36.9	58.9	50-150	4.21	40	L591910-03	WG609496
o-Terphenyl				48.47*	50-150				WG609496
Arsenic	mg/kg	59.6	62.2	109.	75-125	4.27	20	L591834-01	WG609736
Arsenic	mg/kg	48.0	47.4	96.0	75-125	1.26	20	L591834-10	WG609595
Barium	mg/kg	168.	141.	176.*	75-125	17.5	20	L591834-10	WG609595
Chromium	mg/kg	57.2	56.6	97.4	75-125	1.05	20	L591834-10	WG609595
Copper	mg/kg	69.2	68.7	102.	75-125	0.725	20	L591834-10	WG609595
Lead	mg/kg	81.6	67.5	127.*	75-125	18.9	20	L591834-10	WG609595
Nickel	mg/kg	61.6	61.6	97.2	75-125	0	20	L591834-10	WG609595
Selenium	mg/kg	47.7	47.0	95.4	75-125	1.48	20	L591834-10	WG609595

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Silver	mg/kg	48.1	48.1	96.2	75-125	0	20	L591834-10	WG609595
Zinc	mg/kg	166.	160.	136.*	75-125	3.68	20	L591834-10	WG609595
TPH (GC/FID) High Fraction	ppm	43.2	40.4	72.0	50-150	6.80	25	L591853-09	WG609500
o-Terphenyl				61.46	50-150				WG609500
Cadmium	mg/kg	49.3	49.1	98.6	75-125	0.407	20	L591834-10	WG609595
TPH (GC/FID) High Fraction	ppm	65.6	53.9	89.3	50-150	19.5	25	L592133-01	WG609921
o-Terphenyl				47.78*	50-150				WG609921

Batch number /Run number / Sample number cross reference

WG609460: R2317973: L591834-10
WG609444: R2318554: L591834-05 06 07 08 09 10
WG609373: R2319573: L591834-10
WG609529: R2321153: L591834-10
WG609530: R2321175: L591834-10
WG609764: R2321933: L591834-10
WG609547: R2322013: L591834-10
WG609496: R2322133: L591834-05
WG609736: R2322913: L591834-01 02 03 04
WG609595: R2323173: L591834-10
WG609500: R2323233: L591834-06 07 08 09
WG609665: R2324654: L591834-10
WG609921: R2325515: L591834-10

* * Calculations are performed prior to rounding of reported values.

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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Company Name/Address *ENCANRCO-RULEENG* Encana Oil & Gas 1125 ESCALANTE DRIVE RANGELY, CO 81648-3600 *ENCANRCO-RULEENG*				Billing Information Blake Ford 1125 Escalante Drive Rangely, CO 81648-3600 Report to: Blake Ford E-mail to: Blake Ford, Scotty Mann, Brad Ward				Analysis/Container/Preservative								in of Custody 1 of 1 B161 Prepared by: ENVIRONMENTAL SCIENCE CORP 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859						
Project Description: 2205 SITE CLEARANCE																						
PHONE:		FAX:		Client Project No. 2205		ENCANRCO-RULEENG																
Collected by: Brad Ward		Site/Facility ID# 2205		P.O.#																		
Collected by(signature): 		Rush? (Lab MUST be Notified) _____ Same Day.....200% _____ Next Day.....100% _____ Two Day.....50%		Date Results Needed Email? ___No___X___Yes FAX? ___No___Yes		No of Cntrs		BTEXGRO / DRO - 8021/8015 SV8270PAHSIM - 8270SIM SPCON - 9050AMod SAR - Calc. RCRA8 Metals + Cu, Ni, and Zn - 6010/7470 CR6SS - 3060A7196 CR3 - Calc. AS								CoCode (lab use only) , *ENCANRCO-RULEENG* Template/Prelogin						
																Shipped Via:						
Sample ID		Comp/Grab	Matrix	Depth	Date	Time														Remarks/contaminant	Sample # (lab only)	
2205-BG1N-6"-082112		GRAB	SS	6"	8/21/12	938	1															LSG1834-01
2205-BG2E-6"-082112		GRAB	SS	6"	8/21/12	950	1															02
2205-BG3S-6"-082112		GRAB	SS	6"	8/21/12	1001	1															03
2205-BG4W-6"-082112		GRAB	SS	6"	8/21/12	1012	1															04
2205-NSW-6'-082112		GRAB	SS	6'	8/21/12	1051	2	X														05
2205-ESW-7'-082112		GRAB	SS	7'	8/21/12	1100	2	X														06
2205-SSW-7'-082112		GRAB	SS	7'	8/21/12	1108	2	X														07
2205-WSW-7'-082112		GRAB	SS	7'	8/21/12	1116	2	X														08
2205-BBT-7.5'-082112		GRAB	SS	7.5'	8/21/12	1123	2	X														09
2205-ETS-082112		COMP	SS	3-9"	8/21/12	1305	3	X	X	X	X	X	X	X	X	X	X	X	X			00

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

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquisher by:(Signature) 		Date: 8/23/12		Time: 0900		Received by:(Signature) 		Samples returned via: FedEx		UPS		Other		Condition (lab use only)	
Relinquisher by:(Signature)		Date:		Time:		Received by: (Signature)		Temp: 3.6°C		Bottles Received: 12-402		COC Seals Intact Y N NA		pH Checked: NCF:	
Relinquisher by:(Signature)		Date:		Time:		Received for lab by: (Signature) 		Date: 8/24/12		Time: 0900					