



744 Horizon Ct., Suite 140  
Grand Junction, CO 81506  
Phone: 970-243-3271  
Fax: 970-243-3280

September 20, 2010

Mr. Chris Canfield, P.G.  
Environmental Protection Specialist  
State of Colorado Oil and Gas Conservation Commission  
707 Wapiti Ct. Suite 204  
Rifle, Colorado 81650

**RE: Site Investigation and Remediation Workplan Report Form 27**

Dear Mr. Canfield:

HRL Compliance Solutions, Inc. (HCSI) is submitting the Form 27 and applicable attachments on behalf of EnCana Oil and Gas (USA) Inc for closure of 65 blow down pits located in Garfield and Rio Blanco Counties. HCSI is an independent environmental consulting contractor that has been contracted by EnCana to manage the closure of the 65 pits identified within the Form 27 and is working in direct consultation with Mr. Lannie Massey, North Piceance Regulatory Coordinator with EnCana.

If you have any questions, please do not hesitate to contact our office at the above listed number.

Sincerely,

**HRL Compliance Solutions, Inc.**

A handwritten signature in black ink, which appears to read 'Herman Lucero'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Herman Lucero, REM  
Principal Consultant

cc: Lannie Massey, EnCana Oil and Gas (USA) Inc  
file

enclosure: COGCC Form 27 and attachments

State of Colorado  
**Oil and Gas Conservation Commission**

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



FOR OGCC USE ONLY

**SITE INVESTIGATION AND REMEDIATION WORKPLAN**

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

OGCC Employee:

Spill                      Complaint  
Inspection              NOAV

Tracking No:

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

Spill or Release    Plug & Abandon    Central Facility Closure    Site/Facility Closure    Other (describe): \_\_\_\_\_

OGCC Operator Number: \_\_\_\_\_

Name of Operator: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Contact Name and Telephone: \_\_\_\_\_

No: \_\_\_\_\_

Fax: \_\_\_\_\_

API Number: \_\_\_\_\_

County: \_\_\_\_\_

Facility Name: \_\_\_\_\_

Facility Number: \_\_\_\_\_

Well Name: \_\_\_\_\_

Well Number: \_\_\_\_\_

Location: (QtrQtr, Sec, Twp, Rng, Meridian): \_\_\_\_\_ Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

**TECHNICAL CONDITIONS**

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): \_\_\_\_\_

Site Conditions: Is location within a sensitive area (according to Rule 901e)?                      Y                      N                      If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): \_\_\_\_\_

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: \_\_\_\_\_

Potential receptors (water wells within 1/4 mi, surface waters, etc.): \_\_\_\_\_

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):

Extent of Impact:

How Determined:

Soils

Vegetation

Groundwater

Surface Water

**REMEDIALTION WORKPLAN**

Describe initial action taken (if previously provided, refer to that form or document):

Describe how source is to be removed:

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

FORM  
27  
Rev 8/99

State of Colorado  
Oil and Gas Conservation Commission  
1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
(303)894-2100 Fax: (303)894-2109



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**REMEDIATION WORKPLAN (Cont.)**

Tracking Number: \_\_\_\_\_  
Name of Operator: \_\_\_\_\_  
OGCC Operator No: \_\_\_\_\_  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: \_\_\_\_\_

OGCC Employee: \_\_\_\_\_

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

See Attachment A

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

See Attachment A

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☒ Y ☐ N If yes, describe: See Attachment A

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

See Attachment A

**IMPLEMENTATION SCHEDULE**

Date Site Investigation Began: 7/26/2010	Date Site Investigation Completed: 8/13/2010	Date Remediation Plan Submitted: 9/20/2010
Remediation Start Date: TBD	Anticipated Completion Date: TBD	Actual Completion Date: TBD

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

Print Name: Lannie Massey

Signed: Herman J. Lurie Lannie Massey

Title: N. Piceance Field Regulatory Coordinator

Date: 9-20-2010

OGCC Approved: N. Prince

for Chris Lurie EPS

Date: 12/8/2010

## **Attachment A**

### **Describe initial action taken**

All well site information from the COGCC database was reviewed in addition to EnCana Oil and Gas (USA) (EnCana), well files. Based on information from both the COGCC database and EnCana well files it was determined that 65 well sites are to be included for closure consideration under the direction of this COGCC Form 27 (see attached for list of locations).

Of these 65 well sites, 50 (77%) well sites were visited and visually inspected. Of the 50 locations visited, 21 of the pits have partially buried tanks in the pit, 19 of the pits did not have partially buried tanks, and 10 locations did not have pits associated with them. The 19 pits without partially buried tanks were field screened for hydrocarbons in the bottom of the pit using a Petroflag unit. Four of the 19 pits indicate hydrocarbon concentrations below COGCC Table 910-1 allowable standards and soil samples were submitted to an accredited analytical laboratory for confirmation.

EnCana proposes to close all 65 pits based on data from the 50 pits visited, of which 19 pits investigated. Pit locations were selected based on proximity to water source(s) and other sensitive area criteria.

### **Describe how source is to be removed**

#### **Pits with partially buried tanks:**

- The well(s) will be temporarily shut in;
- The flow and or dump line will be rerouted to a frac tank;
- The partially buried tank will be removed;
- A new lined secondary containment will be constructed and the tank will be replaced within the new containment;
- The flow and or dump line will be rerouted to the new established tank battery; and
- The well will be put back on-line.

#### **Pits without partially buried tanks:**

- If applicable, liquids in the pit will be removed using a vacuum truck;
- The well(s) will be temporarily shut in;
- The flow and or dump line will be rerouted to a frac tank;

- A new lined secondary containment will be constructed and the tank will be replaced within the new containment;
- The flow and or dump line will be rerouted to the new established tank battery; and
- The well will be put back on-line.

Liquids in the pit will be removed using a vac-truck, and the bottom of the pits (19) will be field screened for petroleum hydrocarbons. Pits that exceed COGCC Table 910-1 TPH concentrations will be remediated in accordance with COGCC 900 series rules or BLM COA's. Pits that do not exceed COGCC Table 910-1 TPH concentrations will have a composite soil sample collected from the pit and submitted to an accredited analytical laboratory for confirmation.

**Describe how remediation of existing impacts is to be accomplished**

Pit bottoms will be field screened for hydrocarbon concentrations using a Petroflag unit.

**Pit bottoms that indicate hydrocarbon concentrations do not exceed COGCC Table 910-1 Allowable Standards:**

A composite soil sample consisting of 5 individual grab samples collected from the bottom of the pit will be submitted to an accredited analytical laboratory and analyzed for all of the COGCC Table 910-1 contaminants of concern. A background sample will be collected from the location and analyzed for inorganics and arsenic.

Upon confirmation that all contaminants of concern are below COGCC Table 910-1 allowable standards, the pit will be backfilled with clean soil.

**Pit bottoms that indicate hydrocarbon concentrations exceed COGCC Table 910-1 Allowable Standards:**

The impacted area will be remediated in accordance with COGCC Rules 906e, 909, and 910. Specifically, EnCana will remediate the impacted pits utilizing insitu bioremediation techniques as follows:

- The depth of impacts will be determined;
- Collect initial hydrocarbon concentrations utilizing field screen equipment;
- Treat the pit (hydrocarbon impacted area) with a 3% MicroBlaze® solution;
- Monitor and maintain appropriate moisture and nutrient levels within the impacted area and potentially apply a second treatment of 3% MicroBlaze® solution to the impacted area;

- Collect confirmation soil samples for the complete COGCC Table 910-1 soil suite from the treated area once field screen results indicate hydrocarbon concentrations below COGCC Table 910-1 allowable standards; and
- Provide a Notice of Completion report to the COGCC upon completion of remediation.

**If groundwater has been impacted, describe proposed monitoring plan**

Groundwater is not anticipated to be impacted or encountered at any of the 65 well sites, however, if groundwater is encountered during closure activities, work will be stopped, groundwater samples will be collected and analyzed for COGCC Table 910-1 groundwater contaminants of concern, and closure activities evaluated based on analytical results.

**Describe reclamation plan**

The 65 pits proposed for closure under this Form 27, are located on existing/producing well pads. Upon closure of the pits, 45 barrel tanks with secondary containment to 110% of the tank volume will be installed above ground. Pits that are closed will be reclaimed in accordance with COGCC 1000 series rules and regulations for well sites located on Fee land, and in accordance with BLM COA's for well sites located on federal land.

**Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.**

Confirmation soil samples will be collected upon treatment of impacted pits and will be provided with Notice of Completion-COGCC Form 4.

EnCana has performed initial field screen sampling on 19 pits. Of the 19 pits field screened, 4 pits were below COGCC Table 910-1 allowable standards. The 4 pits were sampled and submitted to an accredited analytical laboratory for confirmation. The results are attached.

EnCana has attached field screen data, as well as onsite drawings of sample points for all 19 pits that were accessible. Of the 19 pits field screened:

- 4 pits indicate hydrocarbon concentrations <500 ppm; 21%
- 9 pits indicate hydrocarbon concentrations >500 <1500 ppm; 47%
- 6 pits indicate hydrocarbon concentrations >1500 ppm; 32%

**Final disposition of E&P waste**

Hydrocarbon impacted soil will be treated on-site if allowed, or disposed off-site at an approved disposal facility if on-site treatment is not allowed.

### Field Screen Data

No.	Sample ID	Sample Date	Calibration Date	Calibration Temp.	Weight	Time	Reading (ppm)	DF	RF
1	BP 3102	7/27/2010	7/27/2010	32.3 °C	10g	11:00am	>10,000	1	5
2	SDC 7315	7/27/2010	7/27/2010	32.3 °C	10g	1:30pm	1771	1	5
3	SDC 7334	7/28/2010	7/28/2010	23.8°C	10g	9:00am	548	1	5
4	SDC 7303	7/28/2010	7/28/2010	23.8°C	10g	10:15am	1102	1	5
5	FCB 7408	7/28/2010	7/28/2010	23.8°C	10g	11:40am	314	1	5
6	FED 9-14	7/30/2010	7/28/2010	23.8°C	10g	11:30am	2782	1	5
7	DPU 7706	8/3/2010	7/28/2010	23.8°C	10g	11:15am	2596	1	5
8	DPU 7710	8/3/2010	7/28/2010	23.8°C	10g	12:00pm	642	1	5
9	SDC 7316	8/4/2010	8/4/2010	26.5°C	10g	2:15pm	3267	1	5
10	RC 7001	8/4/2010	8/4/2010	26.5°C	10g	3:15pm	1002	1	5
11	T 7503	8/4/2010	8/4/2010	26.5°C	10g	10:15am	517	1	5
12	EC 7602	8/4/2010	8/4/2010	26.5°C	10g	11:30am	646	1	5
13	DF 35-1	8/4/2010	8/4/2010	26.5°C	10g	9:15am	242	1	5
14	CF A-20-3S-101W	8/4/2010	8/4/2010	26.5°C	10g	2:00pm	441	1	5
15	CF 22-2	8/5/2010	8/4/2010	26.5°C	10g	10:15am	503	1	5
16	GOV 1-3	8/5/2010	8/4/2010	26.5°C	10g	12:00pm	243	1	5
17	FC 7414	8/5/2010	8/4/2010	26.5°C	10g	2:15	1804	1	5
18	SDC 7302	8/9/2010	8/4/2010	26.5°C	10g	10:30am	760	1	5
19	DP 7712	8/9/2010	8/4/2010	26.5°C	10g	4:10pm	1144	1	5



15-Aug-2010

Herman Lucero  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **Encana Pit Closure 10-418 8/6/10**

Work Order: **1008211**

Dear Herman,

ALS Laboratory Group received 4 samples on 09-Aug-2010 10:10 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

DOV#URXS#KVD/FRUS#Sdu#k#kh#DOV#Derudru|Huxs#D#dp seha#Burkhu#Dp lhg#rp sdq|

Environmental The ALS logo, which is a stylized blue and green shape.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



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**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**Work Order:** 1008211

**Work Order Sample Summary**

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<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1008211-01	Federal 22-2	Soil		8/6/2010 10:30	8/9/2010 10:10	<input type="checkbox"/>
1008211-02	Federal 22-2 Background	Soil		8/6/2010 10:30	8/9/2010 10:10	<input type="checkbox"/>
1008211-03	1-3 Gov	Soil		8/6/2010 12:00	8/9/2010 10:10	<input type="checkbox"/>
1008211-04	1-3 Gov Background	Soil		8/6/2010 12:00	8/9/2010 10:10	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**Work Order:** 1008211

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**Case Narrative**

Batch 28569 MSD recovery for Arsenic was just slightly below control limits. Both the MS recovery for Arsenic and the RPD between the MS and MSD met quality control criteria.

Batch 28598 LCS/LCSD recoveries for the Semi-volatiles' surrogate 2-Fluorobiphenyl were below control limits. The other 2 surrogates met quality control criteria. The Semi-Volatile MS/MSD data is not related to this project's samples.

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**WorkOrder:** 1008211

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
SQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

# ALS Laboratory Group

Date: 15-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**Sample ID:** Federal 22-2  
**Collection Date:** 8/6/2010 10:30 AM

**Work Order:** 1008211  
**Lab ID:** 1008211-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>RM</b>
<b>ERO (C8-C36)</b>	<b>110</b>		<b>5.4</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/11/2010
Surr: 4-Terphenyl-d14	92.6		30-125	%REC	1	8/11/2010
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C5-C12)</b>	<b>ND</b>		<b>2,700</b>	<b>µg/Kg-dry</b>	<b>100</b>	8/12/2010
Surr: Toluene-d8	111		50-150	%REC	100	8/12/2010
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>8/12/2010</b>	Analyst: <b>RB</b>
Mercury	ND		0.019	mg/Kg-dry	1	8/12/2010 05:18 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>CES</b>
<b>Arsenic</b>	<b>3.2</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Barium</b>	<b>360</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	<b>10</b>	8/10/2010 06:01 PM
<b>Cadmium</b>	<b>0.46</b>		<b>0.21</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Chromium</b>	<b>6.2</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Copper</b>	<b>11</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Lead</b>	<b>14</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Nickel</b>	<b>11</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Selenium</b>	<b>0.40</b>		<b>0.21</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Silver</b>	<b>0.074</b>		<b>0.021</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>Zinc</b>	<b>57</b>		<b>1.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:08 PM
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS) - SIM</b>						
			<b>SW8270M</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>HL</b>
1-Methylnaphthalene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
2-Methylnaphthalene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Acenaphthene	ND		5.4	µg/Kg-dry	1	8/12/2010 08:17 AM
Acenaphthylene	ND		16	µg/Kg-dry	1	8/12/2010 08:17 AM
Anthracene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Benzo(a)anthracene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Benzo(a)pyrene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Benzo(b)fluoranthene	ND		22	µg/Kg-dry	1	8/12/2010 08:17 AM
Benzo(b-k)fluoranthene	ND		22	µg/Kg-dry	1	8/12/2010 08:17 AM
Benzo(e)pyrene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Benzo(g,h,i)perylene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Benzo(k)fluoranthene	ND		22	µg/Kg-dry	1	8/12/2010 08:17 AM
Chrysene	ND		5.4	µg/Kg-dry	1	8/12/2010 08:17 AM
Dibenzo(a,h)anthracene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Fluoranthene	ND		16	µg/Kg-dry	1	8/12/2010 08:17 AM
Fluorene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Indeno(1,2,3-cd)pyrene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Naphthalene	ND		16	µg/Kg-dry	1	8/12/2010 08:17 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 15-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**Sample ID:** Federal 22-2  
**Collection Date:** 8/6/2010 10:30 AM

**Work Order:** 1008211  
**Lab ID:** 1008211-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Perylene	ND		11	µg/Kg-dry	1	8/12/2010 08:17 AM
Phenanthrene	ND		27	µg/Kg-dry	1	8/12/2010 08:17 AM
Phenol	ND		5.4	µg/Kg-dry	1	8/12/2010 08:17 AM
Pyrene	ND		16	µg/Kg-dry	1	8/12/2010 08:17 AM
Surr: 2-Fluorobiphenyl	25.0	S	45-105	%REC	1	8/12/2010 08:17 AM
Surr: 4-Terphenyl-d14	65.0		30-125	%REC	1	8/12/2010 08:17 AM
Surr: Nitrobenzene-d5	44.8		35-100	%REC	1	8/12/2010 08:17 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>CW</b>
Benzene	ND		19	µg/Kg-dry	100	8/12/2010 05:14 PM
Ethylbenzene	ND		13	µg/Kg-dry	100	8/12/2010 05:14 PM
m,p-Xylene	ND		17	µg/Kg-dry	100	8/12/2010 05:14 PM
o-Xylene	ND		13	µg/Kg-dry	100	8/12/2010 05:14 PM
Toluene	ND		13	µg/Kg-dry	100	8/12/2010 05:14 PM
Xylenes, Total	ND		30	µg/Kg-dry	100	8/12/2010 05:14 PM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>JJG</b>
Moisture	8.2		0.010	% of sample	1	8/9/2010 10:23 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Laboratory Group

Date: 15-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**Sample ID:** Federal 22-2 Background  
**Collection Date:** 8/6/2010 10:30 AM

**Work Order:** 1008211  
**Lab ID:** 1008211-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>CES</b>
Arsenic	2.6		0.48	mg/Kg-dry	1	8/10/2010 03:26 PM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>JJG</b>
Moisture	6.4		0.010	% of sample	1	8/10/2010 11:49 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 15-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**Sample ID:** 1-3 Gov  
**Collection Date:** 8/6/2010 12:00 PM

**Work Order:** 1008211  
**Lab ID:** 1008211-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>RM</b>
<b>ERO (C8-C36)</b>	<b>84</b>		<b>6.2</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/11/2010
Surr: 4-Terphenyl-d14	114		30-125	%REC	1	8/11/2010
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C5-C12)</b>	<b>ND</b>		<b>3,200</b>	<b>µg/Kg-dry</b>	<b>100</b>	8/12/2010
Surr: Toluene-d8	94.9		50-150	%REC	100	8/12/2010
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>CES</b>
<b>Arsenic</b>	<b>3.3</b>		<b>0.62</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Barium</b>	<b>190</b>		<b>0.62</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Cadmium</b>	<b>0.42</b>		<b>0.25</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Chromium</b>	<b>9.6</b>		<b>0.62</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Copper</b>	<b>21</b>		<b>0.62</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Lead</b>	<b>17</b>		<b>0.62</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Nickel</b>	<b>15</b>		<b>0.62</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Selenium</b>	<b>0.44</b>		<b>0.25</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Silver</b>	<b>0.13</b>		<b>0.025</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>Zinc</b>	<b>61</b>		<b>1.2</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/10/2010 03:31 PM
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS) - SIM</b>						
			<b>SW8270M</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>HL</b>
1-Methylnaphthalene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
2-Methylnaphthalene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Acenaphthene	ND		6.3	µg/Kg-dry	1	8/12/2010 07:20 AM
Acenaphthylene	ND		19	µg/Kg-dry	1	8/12/2010 07:20 AM
Anthracene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Benzo(a)anthracene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Benzo(a)pyrene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Benzo(b)fluoranthene	ND		25	µg/Kg-dry	1	8/12/2010 07:20 AM
Benzo(b-k)fluoranthene	ND		25	µg/Kg-dry	1	8/12/2010 07:20 AM
Benzo(e)pyrene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Benzo(g,h,i)perylene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Benzo(k)fluoranthene	ND		25	µg/Kg-dry	1	8/12/2010 07:20 AM
Chrysene	ND		6.3	µg/Kg-dry	1	8/12/2010 07:20 AM
Dibenzo(a,h)anthracene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Fluoranthene	ND		19	µg/Kg-dry	1	8/12/2010 07:20 AM
Fluorene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Indeno(1,2,3-cd)pyrene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Naphthalene	ND		19	µg/Kg-dry	1	8/12/2010 07:20 AM
Perylene	ND		13	µg/Kg-dry	1	8/12/2010 07:20 AM
Phenanthrene	ND		31	µg/Kg-dry	1	8/12/2010 07:20 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Laboratory Group**

Date: 15-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure 10-418 8/6/10  
**Sample ID:** 1-3 Gov  
**Collection Date:** 8/6/2010 12:00 PM

**Work Order:** 1008211  
**Lab ID:** 1008211-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Phenol	ND		6.3	µg/Kg-dry	1	8/12/2010 07:20 AM
Pyrene	ND		19	µg/Kg-dry	1	8/12/2010 07:20 AM
Surr: 2-Fluorobiphenyl	36.4	S	45-105	%REC	1	8/12/2010 07:20 AM
Surr: 4-Terphenyl-d14	121		30-125	%REC	1	8/12/2010 07:20 AM
Surr: Nitrobenzene-d5	60.6		35-100	%REC	1	8/12/2010 07:20 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>CW</b>
Benzene	ND		22	µg/Kg-dry	100	8/12/2010 05:41 PM
Ethylbenzene	ND		15	µg/Kg-dry	100	8/12/2010 05:41 PM
m,p-Xylene	ND		20	µg/Kg-dry	100	8/12/2010 05:41 PM
o-Xylene	ND		15	µg/Kg-dry	100	8/12/2010 05:41 PM
Toluene	ND		15	µg/Kg-dry	100	8/12/2010 05:41 PM
Xylenes, Total	ND		35	µg/Kg-dry	100	8/12/2010 05:41 PM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>JJG</b>
Moisture	21		0.010	% of sample	1	8/9/2010 10:23 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



## ALS Laboratory Group

Date: 15-Aug-10

**Client:** HRL Compliance Solutions

**Project:** Encana Pit Closure 10-418 8/6/10

**Sample ID:** 1-3 Gov Background

**Collection Date:** 8/6/2010 12:00 PM

**Work Order:** 1008211

**Lab ID:** 1008211-04

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>CES</b>
Arsenic	2.8		0.48	mg/Kg-dry	1	8/10/2010 03:37 PM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>JJG</b>
Moisture	2.3		0.010	% of sample	1	8/10/2010 11:49 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 15-Aug-10

**Client:** HRL Compliance Solutions

## QC BATCH REPORT

**Work Order:** 1008211

**Project:** Encana Pit Closure 10-418 8/6/10

Batch ID: **28597**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>DBLKS1-28597-28597</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385978</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	ND	5.0								
<i>Surr: 4-Terphenyl-d14</i>	2.409	0	2	0	120	30-125	0			

<b>LCS</b>	Sample ID: <b>DLCSS1-28597-28597</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385980</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	296.4	5.0	400	0	74.1	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	1.315	0	2	0	65.7	30-125	0			

<b>LCSD</b>	Sample ID: <b>DLCSDS1-28597-28597</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385979</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	273.6	5.0	400	0	68.4	60-130	296.4	7.99	30	
<i>Surr: 4-Terphenyl-d14</i>	1.372	0	2	0	68.6	30-125	1.315	4.22	30	

<b>MS</b>	Sample ID: <b>1008229-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385975</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	408	5.0	397	165.5	61.1	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	1.215	0	1.985	0	61.2	30-125	0			

<b>MSD</b>	Sample ID: <b>1008229-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385976</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	430.3	5.0	397.3	165.5	66.6	60-130	408	5.32	30	
<i>Surr: 4-Terphenyl-d14</i>	1.395	0	1.987	0	70.2	30-125	1.215	13.8	30	

The following samples were analyzed in this batch:

1008211-01A 1008211-03A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **R79955**      Instrument ID **GC6**      Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MB-R79955-R79955</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010</b>			
Client ID:	Run ID: <b>GC6_100812A</b>				SeqNo: <b>1385467</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C5-C12)	ND	200								
<i>Surr: Toluene-d8</i>	22.69	0	20	0	113	70-130	0			

<b>LCS</b>	Sample ID: <b>LCS-R79955-R79955</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010</b>			
Client ID:	Run ID: <b>GC6_100812A</b>				SeqNo: <b>1385468</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C5-C12)	22450	200	25000	0	89.8	70-130	0			
<i>Surr: Toluene-d8</i>	17.22	0	20	0	86.1	70-130	0			

<b>LCSD</b>	Sample ID: <b>LCSD-R79955-R79955</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010</b>			
Client ID:	Run ID: <b>GC6_100812A</b>				SeqNo: <b>1385470</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C5-C12)	23350	200	25000	0	93.4	70-130	22450	3.95	30	
<i>Surr: Toluene-d8</i>	17.65	0	20	0	88.3	70-130	17.22	2.48	30	

The following samples were analyzed in this batch:

1008211-01B	1008211-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **28640** Instrument ID **HG1** Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-28640-28640</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/12/2010 04:50 PM</b>			
Client ID:	Run ID: <b>HG1_100812B</b>				SeqNo: <b>1386412</b>		Prep Date: <b>8/12/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

<b>LCS</b>	Sample ID: <b>LCS-28640-28640</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/12/2010 05:49 PM</b>			
Client ID:	Run ID: <b>HG1_100812B</b>				SeqNo: <b>1386464</b>		Prep Date: <b>8/12/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1703	0.020	0.1665		0	102	80-120	0		

<b>LCSD</b>	Sample ID: <b>LCSD-28640-28640</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/12/2010 05:51 PM</b>			
Client ID:	Run ID: <b>HG1_100812B</b>				SeqNo: <b>1386465</b>		Prep Date: <b>8/12/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1698	0.020	0.1665		0	102	80-120	0.1703	0.294	20

<b>MS</b>	Sample ID: <b>1008211-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/12/2010 05:20 PM</b>			
Client ID: <b>Federal 22-2</b>	Run ID: <b>HG1_100812B</b>				SeqNo: <b>1386424</b>		Prep Date: <b>8/12/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1793	0.018	0.1496	0.01572	109	75-125		0		

<b>MSD</b>	Sample ID: <b>1008211-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/12/2010 05:22 PM</b>			
Client ID: <b>Federal 22-2</b>	Run ID: <b>HG1_100812B</b>				SeqNo: <b>1386425</b>		Prep Date: <b>8/12/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1764	0.018	0.1489	0.01572	108	75-125	0.1793	1.62	35	

The following samples were analyzed in this batch:

1008211-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

# QC BATCH REPORT

Batch ID: **28569** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-28569-28569</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>8/10/2010 12:26 PM</b>					
Client ID:	Run ID: <b>ICPMS1_100810A</b>		SeqNo: <b>1383926</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.01014	0.25								J
Cadmium	0.01872	0.10								J
Chromium	0.005225	0.25								J
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	0.00622	0.25								J
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

<b>LCS</b>	Sample ID: <b>LCS-28569-28569</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>8/10/2010 12:32 PM</b>					
Client ID:	Run ID: <b>ICPMS1_100810A</b>		SeqNo: <b>1383927</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	2.144	0.25	2.5	0	85.8	80-120	0			
Barium	2.436	0.25	2.5	0	97.5	80-120	0			
Cadmium	2.216	0.10	2.5	0	88.7	80-120	0			
Chromium	2.408	0.25	2.5	0	96.3	80-120	0			
Copper	2.456	0.25	2.5	0	98.3	80-120	0			
Lead	2.393	0.25	2.5	0	95.7	80-120	0			
Nickel	2.429	0.25	2.5	0	97.2	80-120	0			
Selenium	2.198	0.25	2.5	0	87.9	80-120	0			
Silver	2.374	0.25	2.5	0	95	80-120	0			
Zinc	2.128	0.50	2.5	0	85.1	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-28569-28569</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>8/10/2010 12:38 PM</b>					
Client ID:	Run ID: <b>ICPMS1_100810A</b>		SeqNo: <b>1383928</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	2.146	0.25	2.5	0	85.9	80-120	2.144	0.117	20	
Barium	2.471	0.25	2.5	0	98.8	80-120	2.436	1.41	20	
Cadmium	2.245	0.10	2.5	0	89.8	80-120	2.216	1.28	20	
Chromium	2.435	0.25	2.5	0	97.4	80-120	2.408	1.09	20	
Copper	2.49	0.25	2.5	0	99.6	80-120	2.456	1.35	20	
Lead	2.421	0.25	2.5	0	96.8	80-120	2.393	1.16	20	
Nickel	2.488	0.25	2.5	0	99.5	80-120	2.429	2.4	20	
Selenium	2.193	0.25	2.5	0	87.7	80-120	2.198	0.228	20	
Silver	2.412	0.25	2.5	0	96.5	80-120	2.374	1.59	20	
Zinc	2.2	0.50	2.5	0	88	80-120	2.128	3.37	20	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **28569**      Instrument ID **ICPMS1**      Method: **SW6020A**

MS				Units: mg/Kg			Analysis Date: 8/10/2010 01:53 PM			
Sample ID: <b>1008170-01A MS</b>		Run ID: <b>ICPMS1_100810A</b>		SeqNo: <b>1383937</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>		
Client ID:										
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.585	0.48	4.785	0.6373	82.5	80-120	0			
Barium	11.8	0.48	4.785	6.816	104	80-120	0			
Cadmium	4.271	0.19	4.785	0.05327	88.1	80-120	0			
Chromium	6.234	0.48	4.785	1.75	93.7	80-120	0			
Copper	5.056	0.48	4.785	0.5268	94.6	80-120	0			
Lead	6.591	0.48	4.785	1.974	96.5	80-120	0			
Nickel	6.605	0.48	4.785	2.096	94.2	80-120	0			
Selenium	4.049	0.48	4.785	0.02034	84.2	80-120	0			
Silver	4.371	0.48	4.785	0.00261	91.3	80-120	0			
Zinc	10.55	0.96	4.785	6.623	82	80-120	0			

MSD				Units: mg/Kg			Analysis Date: 8/10/2010 01:59 PM			
Sample ID: <b>1008170-01A MSD</b>		Run ID: <b>ICPMS1_100810A</b>		SeqNo: <b>1383938</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>		
Client ID:										
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.565	0.48	4.776	0.6373	82.3	80-120	4.585	0.421	25	
Barium	11.41	0.48	4.776	6.816	96.3	80-120	11.8	3.32	25	
Cadmium	4.149	0.19	4.776	0.05327	85.8	80-120	4.271	2.89	25	
Chromium	6.088	0.48	4.776	1.75	90.8	80-120	6.234	2.38	25	
Copper	4.92	0.48	4.776	0.5268	92	80-120	5.056	2.72	25	
Lead	6.311	0.48	4.776	1.974	90.8	80-120	6.591	4.34	25	
Nickel	6.521	0.48	4.776	2.096	92.7	80-120	6.605	1.27	25	
Selenium	4.039	0.48	4.776	0.02034	84.2	80-120	4.049	0.238	25	
Silver	4.196	0.48	4.776	0.00261	87.8	80-120	4.371	4.1	25	
Zinc	10.41	0.96	4.776	6.623	79.3	80-120	10.55	1.29	25	S

The following samples were analyzed in this batch:

1008211-01A	1008211-02A	1008211-03A
1008211-04A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **28598**      Instrument ID **SVMS4**      Method: **SW8270M**

MBLK		Sample ID: <b>SBLKS1-28598-28598</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/12/2010 11:30 AM</b>		
Client ID:		Run ID: <b>SVMS4_100811A</b>				SeqNo: <b>1385865</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
Acenaphthene	ND	5.0								
Acenaphthylene	ND	15								
Anthracene	ND	10								
Benzo(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	20								
Benzo(b-k)fluoranthene	ND	20								
Benzo(e)pyrene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	20								
Chrysene	ND	5.0								
Dibenzo(a,h)anthracene	ND	10								
Fluoranthene	ND	15								
Fluorene	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Naphthalene	ND	15								
Perylene	ND	10								
Phenanthrene	ND	25								
Phenol	ND	5.0								
Pyrene	ND	15								
<i>Surr: 2-Fluorobiphenyl</i>	<i>117</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>70.2</i>	<i>45-105</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>112</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>67.2</i>	<i>30-125</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>116.3</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>69.8</i>	<i>35-100</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **28598**      Instrument ID **SVMS4**      Method: **SW8270M**

LCS		Sample ID: <b>SLCSS1-28598-28598</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/12/2010 05:25 AM</b>		
Client ID:		Run ID: <b>SVMS4_100811A</b>				SeqNo: <b>1385857</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	52.67	10	66.67	0	79	50-110	0			
Acenaphthene	33.33	5.0	66.67	0	50	35-110	0			
Acenaphthylene	50.33	15	66.67	0	75.5	35-115	0			
Anthracene	59.33	10	66.67	0	89	45-125	0			
Benzo(a)anthracene	59	10	66.67	0	88.5	50-105	0			
Benzo(a)pyrene	73	10	66.67	0	110	40-135	0			
Benzo(b)fluoranthene	52	20	66.67	0	78	55-120	0			
Benzo(b-k)fluoranthene	102	20	133.3	0	76.5	55-120	0			
Benzo(g,h,i)perylene	58	10	66.67	0	87	55-115	0			
Benzo(k)fluoranthene	68	20	66.67	0	102	55-120	0			
Chrysene	65.33	5.0	66.67	0	98	55-120	0			
Dibenzo(a,h)anthracene	60	10	66.67	0	90	45-115	0			
Fluoranthene	64.33	15	66.67	0	96.5	40-135	0			
Fluorene	54.33	10	66.67	0	81.5	45-105	0			
Indeno(1,2,3-cd)pyrene	58.33	10	66.67	0	87.5	55-135	0			
Naphthalene	51	15	66.67	0	76.5	50-110	0			
Phenanthrene	57.33	25	66.67	0	86	55-125	0			
Phenol	58.67	5.0	66.67	0	88	40-110	0			
Pyrene	54.33	15	66.67	0	81.5	50-115	0			
<i>Surr: 2-Fluorobiphenyl</i>	67.33	0	166.7	0	40.4	45-105	0			S
<i>Surr: 4-Terphenyl-d14</i>	165.7	0	166.7	0	99.4	30-125	0			
<i>Surr: Nitrobenzene-d5</i>	123	0	166.7	0	73.8	35-100	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **28598**      Instrument ID **SVMS4**      Method: **SW8270M**

LCSD		Sample ID: <b>SLCSDS1-28598-28598</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/12/2010 06:04 AM</b>		
Client ID:		Run ID: <b>SVMS4_100811A</b>				SeqNo: <b>1385858</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	50.67	10	66.67	0	76	50-110	52.67	3.87	40	
Acenaphthene	29.33	5.0	66.67	0	44	35-110	33.33	12.8	40	
Acenaphthylene	45.67	15	66.67	0	68.5	35-115	50.33	9.72	40	
Anthracene	54.67	10	66.67	0	82	45-125	59.33	8.19	40	
Benzo(a)anthracene	60.67	10	66.67	0	91	50-105	59	2.79	40	
Benzo(a)pyrene	72	10	66.67	0	108	40-135	73	1.38	40	
Benzo(b)fluoranthene	52	20	66.67	0	78	55-120	52	0	40	
Benzo(b-k)fluoranthene	122.3	20	133.3	0	91.8	55-120	102	18.1	40	
Benzo(g,h,i)perylene	58.33	10	66.67	0	87.5	55-115	58	0.573	40	
Benzo(k)fluoranthene	70.33	20	66.67	0	106	55-120	68	3.37	40	
Chrysene	67.67	5.0	66.67	0	102	55-120	65.33	3.51	40	
Dibenzo(a,h)anthracene	60	10	66.67	0	90	45-115	60	0	40	
Fluoranthene	61.33	15	66.67	0	92	40-135	64.33	4.77	40	
Fluorene	51	10	66.67	0	76.5	45-105	54.33	6.33	40	
Indeno(1,2,3-cd)pyrene	58.33	10	66.67	0	87.5	55-135	58.33	0	40	
Naphthalene	54.67	15	66.67	0	82	50-110	51	6.94	40	
Phenanthrene	53	25	66.67	0	79.5	55-125	57.33	7.85	40	
Phenol	62	5.0	66.67	0	93	40-110	58.67	5.52	40	
Pyrene	54.33	15	66.67	0	81.5	50-115	54.33	0	40	
<i>Surr: 2-Fluorobiphenyl</i>	58	0	166.7	0	34.8	45-105	67.33	14.9	40	S
<i>Surr: 4-Terphenyl-d14</i>	174.3	0	166.7	0	105	30-125	165.7	5.1	40	
<i>Surr: Nitrobenzene-d5</i>	115.3	0	166.7	0	69.2	35-100	123	6.43	40	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **28598**      Instrument ID **SVMS4**      Method: **SW8270M**

MS				Sample ID: <b>1008229-01A MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/12/2010 09:33 AM</b>	
Client ID:				Run ID: <b>SVMS4_100811A</b>			SeqNo: <b>1385862</b>		Prep Date: <b>8/10/2010</b>	
							DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	31.67	9.9	65.99	8.331	35.4	50-110	0			S
Acenaphthene	30.02	4.9	65.99	0	45.5	35-110	0			
Acenaphthylene	47.51	15	65.99	0	72	35-115	0			
Anthracene	65.33	9.9	65.99	0	99	45-125	0			
Benzo(a)anthracene	34.31	9.9	65.99	6.665	41.9	50-105	0			S
Benzo(a)pyrene	74.9	9.9	65.99	6.998	103	40-135	0			
Benzo(b)fluoranthene	72.26	20	65.99	2.333	106	55-120	0			
Benzo(b-k)fluoranthene	146.2	20	132	2.333	109	55-120	0			
Benzo(g,h,i)perylene	40.91	9.9	65.99	0	62	55-115	0			
Benzo(k)fluoranthene	73.91	20	65.99	0	112	55-120	0			
Chrysene	58.4	4.9	65.99	0	88.5	55-120	0			
Dibenzo(a,h)anthracene	42.89	9.9	65.99	0	65	45-115	0			
Fluoranthene	67.64	15	65.99	0.9997	101	40-135	0			
Fluorene	60.05	9.9	65.99	2.333	87.5	45-105	0			
Indeno(1,2,3-cd)pyrene	41.57	9.9	65.99	0	63	55-135	0			
Naphthalene	41.9	15	65.99	2.999	59	50-110	0			
Phenanthrene	63.68	25	65.99	2.999	92	55-125	0			
Phenol	49.82	4.9	65.99	1.666	73	40-110	0			
Pyrene	39.92	15	65.99	3.332	55.4	50-115	0			
<i>Surr: 2-Fluorobiphenyl</i>	<i>57.41</i>	<i>0</i>	<i>165</i>	<i>0</i>	<i>34.8</i>	<i>45-105</i>	<i>0</i>			<i>S</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>101.6</i>	<i>0</i>	<i>165</i>	<i>0</i>	<i>61.6</i>	<i>30-125</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>92.05</i>	<i>0</i>	<i>165</i>	<i>0</i>	<i>55.8</i>	<i>35-100</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **28598**      Instrument ID **SVMS4**      Method: **SW8270M**

MSD				Sample ID: <b>1008229-01A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/12/2010 10:12 AM</b>	
Client ID:				Run ID: <b>SVMS4_100811A</b>			SeqNo: <b>1385863</b>		Prep Date: <b>8/10/2010</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	44.87	9.9	65.99	8.331	55.4	50-110	31.67	34.5	40	
Acenaphthene	87.44	4.9	65.99	0	133	35-110	30.02	97.8	40	SR
Acenaphthylene	62.36	15	65.99	0	94.5	35-115	47.51	27	40	
Anthracene	67.64	9.9	65.99	0	103	45-125	65.33	3.48	40	
Benzo(a)anthracene	35.31	9.9	65.99	6.665	43.4	50-105	34.31	2.85	40	S
Benzo(a)pyrene	77.54	9.9	65.99	6.998	107	40-135	74.9	3.47	40	
Benzo(b)fluoranthene	78.86	20	65.99	2.333	116	55-120	72.26	8.74	40	
Benzo(b-k)fluoranthene	160.7	20	132	2.333	120	55-120	146.2	9.47	40	
Benzo(g,h,i)perylene	43.88	9.9	65.99	0	66.5	55-115	40.91	7.01	40	
Benzo(k)fluoranthene	81.83	20	65.99	0	124	55-120	73.91	10.2	40	S
Chrysene	57.41	4.9	65.99	0	87	55-120	58.4	1.7	40	
Dibenzo(a,h)anthracene	46.85	9.9	65.99	0	71	45-115	42.89	8.83	40	
Fluoranthene	61.04	15	65.99	0.9997	91	40-135	67.64	10.2	40	
Fluorene	73.25	9.9	65.99	2.333	107	45-105	60.05	19.8	40	S
Indeno(1,2,3-cd)pyrene	43.55	9.9	65.99	0	66	55-135	41.57	4.66	40	
Naphthalene	50.15	15	65.99	2.999	71.5	50-110	41.9	17.9	40	
Phenanthrene	63.68	25	65.99	2.999	92	55-125	63.68	0.0066	40	
Phenol	55.43	4.9	65.99	1.666	81.5	40-110	49.82	10.7	40	
Pyrene	48.17	15	65.99	3.332	68	50-115	39.92	18.7	40	
<i>Surr: 2-Fluorobiphenyl</i>	68.96	0	165	0	41.8	45-105	57.41	18.3	40	S
<i>Surr: 4-Terphenyl-d14</i>	109.9	0	165	0	66.6	30-125	101.6	7.81	40	
<i>Surr: Nitrobenzene-d5</i>	98.99	0	165	0	60	35-100	92.05	7.26	40	

The following samples were analyzed in this batch:

1008211-01A	1008211-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **R79964** Instrument ID **VMS6** Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBLKW1-100812-R79964</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010 11:30 AM</b>			
Client ID:	Run ID: <b>VMS6_100812A</b>				SeqNo: <b>1386402</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								

<b>LCS</b>	Sample ID: <b>VLCSW1-100812-R79964</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010 10:08 AM</b>			
Client ID:	Run ID: <b>VMS6_100812A</b>				SeqNo: <b>1385726</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.34	1.0	20	0	96.7	80-120	0			
Ethylbenzene	20.57	1.0	20	0	103	75-125	0			
m,p-Xylene	41.34	2.0	40	0	103	75-130	0			
o-Xylene	21.11	1.0	20	0	106	80-120	0			
Toluene	19.83	1.0	20	0	99.2	75-120	0			
Xylenes, Total	62.45	2.0	60	0	104	75-130	0			

<b>LCSD</b>	Sample ID: <b>VLCSW1-100812-R79964</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010 10:36 AM</b>			
Client ID:	Run ID: <b>VMS6_100812A</b>				SeqNo: <b>1385727</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.71	1.0	20	0	93.6	80-120	19.34	3.31	30	
Ethylbenzene	19.68	1.0	20	0	98.4	75-125	20.57	4.42	30	
m,p-Xylene	39.48	2.0	40	0	98.7	75-130	41.34	4.6	30	
o-Xylene	20.37	1.0	20	0	102	80-120	21.11	3.57	30	
Toluene	18.82	1.0	20	0	94.1	75-120	19.83	5.23	30	
Xylenes, Total	59.85	2.0	60	0	99.8	75-130	62.45	4.25	30	

<b>MS</b>	Sample ID: <b>1008277-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/12/2010 07:55 PM</b>			
Client ID:	Run ID: <b>VMS6_100812A</b>				SeqNo: <b>1386471</b>		Prep Date:		DF: <b>100</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1584	100	2000	0	79.2	75-125	0			
Ethylbenzene	1856	200	2000	17	92	75-125	0			
m,p-Xylene	3781	200	4000	51	93.2	80-125	0			
o-Xylene	1943	100	2000	24	96	75-125	0			
Toluene	1770	150	2000	0	88.5	70-125	0			
Xylenes, Total	5724	300	6000	75	94.2	75-125	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **R79964** Instrument ID **VMS6** Method: **SW8260**

<b>MSD</b>	Sample ID: <b>1008277-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/12/2010 08:23 PM</b>			
Client ID:	Run ID: <b>VMS6_100812A</b>				SeqNo: <b>1386472</b>		Prep Date:		DF: <b>100</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1736	100	2000	0	86.8	75-125	1584	9.16	30	
Ethylbenzene	1834	200	2000	17	90.8	75-125	1856	1.19	30	
m,p-Xylene	3712	200	4000	51	91.5	80-125	3781	1.84	30	
o-Xylene	1918	100	2000	24	94.7	75-125	1943	1.3	30	
Toluene	1749	150	2000	0	87.4	70-125	1770	1.19	30	
Xylenes, Total	5630	300	6000	75	92.6	75-125	5724	1.66	30	

The following samples were analyzed in this batch:

1008211-01B	1008211-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **R79888** Instrument ID **MOIST** Method: **A2540 B**

<b>MBLK</b>	Sample ID: <b>WBLKS1-100809-R79888</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/9/2010 10:23 AM</b>		
Client ID:	Run ID: <b>MOIST_100809B</b>				SeqNo: <b>1383777</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.010								

<b>DUP</b>	Sample ID: <b>1008173-10A DUP</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/9/2010 10:23 AM</b>		
Client ID:	Run ID: <b>MOIST_100809B</b>				SeqNo: <b>1383786</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	7.48	0.010	0	0	0	0-0	7.71	3.03	20	

<b>DUP</b>	Sample ID: <b>1008184-01C DUP</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/9/2010 10:23 AM</b>		
Client ID:	Run ID: <b>MOIST_100809B</b>				SeqNo: <b>1383792</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	8.25	0.010	0	0	0	0-0	8.23	0.243	20	

The following samples were analyzed in this batch:

1008211-01A	1008211-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008211  
**Project:** Encana Pit Closure 10-418 8/6/10

## QC BATCH REPORT

Batch ID: **R79925** Instrument ID **MOIST** Method: **A2540 B**

<b>MBLK</b>	Sample ID: <b>WBLKS1-100810-R79925</b>	Units: <b>% of sample</b>	Analysis Date: <b>8/10/2010 11:49 AM</b>							
Client ID:	Run ID: <b>MOIST_100810A</b>	SeqNo: <b>1384840</b>	Prep Date: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.010								

<b>DUP</b>	Sample ID: <b>1008229-01A DUP</b>	Units: <b>% of sample</b>	Analysis Date: <b>8/10/2010 11:49 AM</b>							
Client ID:	Run ID: <b>MOIST_100810A</b>	SeqNo: <b>1384845</b>	Prep Date: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.47	0.010	0	0	0	0-0	13.77	2.2	20	

The following samples were analyzed in this batch:

1008211-02A	1008211-04A
-------------	-------------

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

## Chain-of-Custody

**WORKORDER**

1008211

Form 202r8

PAGE

/ of /

## DISPOSAL

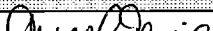

By Lab or Return to Client

[illegible]

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

<b>Comments:</b> For metals run COGLC 9/10-1 Surete Report total Barium & Do Not Run Boron	<b>QC PACKAGE (check below)</b>	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
<b>Preservative Key:</b> 1-HCl   2-HNO3   3-H2SO4   4-NaOH   5-NaHSO4   7-Other   8-4 degrees C   9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Anne Opitz	8/6/10	5pm
RECEIVED BY		KEITH W. FERENC	8/9/10	1010
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



## Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **09-Aug-10 10:10**

Work Order: **1008211**

Received by: **KRW**

Checklist completed by Keith Wurenga 09-Aug-10  
eSignature Date

Reviewed by: Ann Preston 09-Aug-10  
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>23.0 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes: Client approved running samples with non-compliance temperature upon receipt.

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



<b>4a Express Package Service</b>		* To most locations.	<b>Packages up to 150 lbs.</b>
<b>01</b>	<input checked="" type="checkbox"/> <b>FedEx Priority Overnight</b> Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.	<b>05</b>	<input type="checkbox"/> <b>FedEx Standard Overnight</b> Next business afternoon.* Saturday Delivery NOT available.
<b>03</b>	<input type="checkbox"/> <b>FedEx 2Day</b> Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.	<b>20</b>	<input type="checkbox"/> <b>FedEx Express Saver</b> Third business day.* Saturday Delivery NOT available.

---

<b>4b Express Freight Service</b>		** To most locations.	<b>Packages over 150 lbs.</b>
<b>70</b>	<input type="checkbox"/> <b>FedEx 1Day Freight</b> Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.	<b>FedEx 1Day Freight Booking No.</b>	
<b>80</b>	<input type="checkbox"/> <b>FedEx 2Day Freight</b> Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.	<b>83</b>	<input type="checkbox"/> <b>FedEx 3Day Freight</b> Third business day.** Saturday Delivery NOT available.

---

<b>5 Packaging</b>		* Declared value limit \$500.	
<b>06</b>	<input type="checkbox"/> <b>FedEx Envelope*</b>	<b>02</b>	<input type="checkbox"/> <b>FedEx Pak*</b> Includes FedEx Small Pak and FedEx Large Pak
<b>03</b>	<input type="checkbox"/> <b>FedEx Box</b>	<b>04</b>	<input type="checkbox"/> <b>FedEx Tube</b>
<b>01</b>	<input checked="" type="checkbox"/> <b>Other</b>		

To: Sample Receiving Phone 615-399-1607  
 Recipient's Name  
ALS Group  
 Company  
3352 128th Ave  
 Address  
 We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room 01  
HOLD Weekday  
FedEx location address  
REQUIRED, NOT available  
FedEx First Overnight.  
HOLD Saturday  
FedEx location address  
REQUIRED, Available ONLY  
FedEx Priority Overnight and  
FedEx 2Day to select locations  
Address 31  
 Use this line for the HOLD location address or for continuation of your shipping address.  
 City Holland State MO ZIP 64424

03 ☐ **SATURDAY DELIVERY**

☐ **No Signature Required**  
Package may be left without  
obtaining a signature for delivery.

**10** ☐ **Direct Signature**  
Someone at recipient's address  
may sign for delivery. *Fee applies.*

**34** ☐ **Indirect Signature**  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. *For  
residential deliveries only. Fee applies.*

**Does this shipment contain dangerous goods?**

One box must be checked.

☒ **No 04** ☐ **Yes** ☐ **Yes** ☐ **06** ☐ **Dry Ice**

☐ **As per attached Shipper's Declaration** ☐ **Shipper's Declaration not required** ☐ **Dry Ice, 9, UN 1845**

**Dangerous goods (including dry ice) cannot be shipped in FedEx packaging**

☐ **Cargo Aircraft Only**

**7. Payment Bill to:** Obtain recip. ☐  
 Sender ☐ Enter FedEx Acct. No. or Credit Card No. below. Acct. No. ☐

1 ☐ **Sender** Account No. In Section 1 will be billed. 2 ☐ **Recipient** 3 ☐ **Third Party** 4 ☐ **Credit Card** 5 ☐ **Cash/Check**

Total Packages Total Weight. Credit Card Auth.

\*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.



8722 9432 0294

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Part 158280/158281 • Rev. Date 2/10

**Money-Back Guarantee**  
In the event of untimely delivery, FedEx will, at your request and with some limitations, refund or credit all transportation charges. See the current FedEx Service Guide for more information.

For other shipments, \$50,000 unless your package value, in which case the highest value, in which case the highest value, is \$1,000.

Items of extraordinary value include shipments containing such items as artwork, jewelry, furs, precious metals, portable electronic instruments, and other items listed in the current Customs Service Guide.

You may send more than one package on this Airbill and in the total declared value for all packages, not to exceed the \$500, \$1,000, or \$50,000 per package limit described above. (Example: 5 packages can have a total declared value of up to \$250,000.) In that case, our liability is limited to the actual value of the package(s) lost or damaged, but may not exceed the maximum allowable declared value(s) or the total declared value, whichever is less. You are responsible for proving the actual loss or damage.

Even if you give us different payment instructions, you will always be primarily responsible for delivery costs, as well as any cost we incur in either returning your package to you or warehousing it pending disposition.

ENVIRONMENTAL SAMPLING SUPPLY  
9601 San Leandro St. Oakland, CA 94603  
CUSTODY

**Filing A Claim** YOU MUST MAKE ALL CLAIMS IN  
writing and notify us of your claim within strict time limits  
set out in the current FedEx Service Guide.

You may call our Customer Service department at  
1-800-GoFedEx 1-800-463-3339 to report a claim; however,  
you must still file a timely written claim. We aren't obligated  
to act on any claim until you have paid all transportation  
charges, and you may not deduct the amount of your claim  
from those charges.

If the recipient accepts your package without noting any  
damage on the delivery record, we will assume the package  
was delivered in good condition. For us to process your claim,  
you must make the original shipping cartons and packing  
available for inspection.

**Right To Inspect** We may, at our option, open and inspect

- for your acts or omissions, including but not limited to  
 improper or insufficient packing, securing, marking, or  
 addressing, or those of the recipient or anyone else with  
 an interest in the package.  
 - if you or the recipient violates any of the terms of  
 our agreement.  
 - or damage to shipments of prohibited items.  
 - delay caused by events we cannot  
 be held liable to acts of God, war,  
 public emergencies, war,  
 authorities

Signature: *[Signature]*  
 Date: *08/01/08*

By giving us, "you" and "your" refer to the sender, its employees, and agents. FedEx Service Guide, which is available to those terms on behalf of the terms on this Airbill. FedEx Service Guide will control. No one is responsible for adequately packaging your goods and/or weight per package, our billing will be based on an estimated "heft" weight per package as indicated on the number of packages we received and/or an estimated "heft" weight per package as indicated on the number of packages we received.

## Terms And Conditions



13-Aug-2010

Herman Lucero  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **Encana Pit Closure #10-418 8/5/10**

Work Order: **1008168**

Dear Herman,

ALS Laboratory Group received 4 samples on 06-Aug-2010 11:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

DOV#T UR X S#K VD /#R US#Sdu#k i#kh#DOV#Dderudw#u| #U ux#s#D #F dp seha#Eurwkh#Dp l#hg#F rp sdq|

Environmental The ALS logo, which is a small blue triangle with a yellow flame inside.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**Work Order:** 1008168

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1008168-01	A-20-3-101-S Federal	Soil		8/5/2010 14:15	8/6/2010 11:00	<input type="checkbox"/>
1008168-02	A-20-3-101-S Federal Background	Soil		8/5/2010 14:15	8/6/2010 11:00	<input type="checkbox"/>
1008168-03	35-1 Duncan Fed.	Soil		8/5/2010 09:45	8/6/2010 11:00	<input type="checkbox"/>
1008168-04	35-1 Duncan Fed. Background	Soil		8/5/2010 09:45	8/6/2010 11:00	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**Work Order:** 1008168

---

**Case Narrative**

Batch 28569 MSD data for Zinc is not related to this project's samples.

Batch 28545 LCS recovery for Acenaphthene and LCSD recovery for Naphthalene were below control limits and are considered sporadic marginal exceedances allowed by the SOP. Sample A-20-3-101-S Federal MS recovery for Benzo(a)anthracene, and MS/MSD recoveries for the surrogate 2-Fluorobiphenyl were below control limits due to matrix interference.

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**WorkOrder:** 1008168

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

# ALS Laboratory Group

Date: 13-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**Sample ID:** A-20-3-101-S Federal  
**Collection Date:** 8/5/2010 02:15 PM

**Work Order:** 1008168  
**Lab ID:** 1008168-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>SW8015M</b>					Prep Date: 8/8/2010	Analyst: RM
<b>ERO (C8-C36)</b>	<b>290</b>		<b>5.9</b>	<b>mg/Kg-dry</b>	1	8/11/2010
Surr: 4-Terphenyl-d14	73.5		30-125	%REC	1	8/11/2010
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>SW8015</b>						Analyst: RM
<b>GRO (C5-C12)</b>	<b>ND</b>		<b>3,000</b>	<b>µg/Kg-dry</b>	100	8/12/2010
Surr: Toluene-d8	106		50-150	%REC	100	8/12/2010
<b>MERCURY BY CVAA</b>						
<b>SW7471</b>					Prep Date: 8/9/2010	Analyst: RB
Mercury	ND		0.023	mg/Kg-dry	1	8/9/2010 06:31 PM
<b>METALS BY ICP-MS</b>						
<b>SW6020A</b>					Prep Date: 8/10/2010	Analyst: CES
<b>Arsenic</b>	<b>3.8</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	1	8/10/2010 12:55 PM
<b>Barium</b>	<b>500</b>		<b>5.3</b>	<b>mg/Kg-dry</b>	10	8/10/2010 03:14 PM
<b>Cadmium</b>	<b>0.40</b>		<b>0.21</b>	<b>mg/Kg-dry</b>	1	8/10/2010 12:55 PM
<b>Chromium</b>	<b>4.7</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	1	8/10/2010 12:55 PM
<b>Copper</b>	<b>10</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	1	8/10/2010 12:55 PM
<b>Lead</b>	<b>14</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	1	8/10/2010 12:55 PM
<b>Nickel</b>	<b>8.5</b>		<b>0.53</b>	<b>mg/Kg-dry</b>	1	8/10/2010 12:55 PM
Selenium	ND		0.53	mg/Kg-dry	1	8/10/2010 12:55 PM
Silver	ND		0.53	mg/Kg-dry	1	8/10/2010 12:55 PM
<b>Zinc</b>	<b>51</b>		<b>1.1</b>	<b>mg/Kg-dry</b>	1	8/10/2010 12:55 PM
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS) - SIM</b>						
<b>SW8270M</b>					Prep Date: 8/8/2010	Analyst: HL
1-Methylnaphthalene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
2-Methylnaphthalene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Acenaphthene	ND		5.9	µg/Kg-dry	1	8/10/2010 10:22 AM
Acenaphthylene	ND		18	µg/Kg-dry	1	8/10/2010 10:22 AM
Anthracene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Benzo(a)anthracene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Benzo(a)pyrene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Benzo(b)fluoranthene	ND		23	µg/Kg-dry	1	8/10/2010 10:22 AM
Benzo(b-k)fluoranthene	ND		23	µg/Kg-dry	1	8/10/2010 10:22 AM
Benzo(e)pyrene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Benzo(g,h,i)perylene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Benzo(k)fluoranthene	ND		23	µg/Kg-dry	1	8/10/2010 10:22 AM
Chrysene	ND		5.9	µg/Kg-dry	1	8/10/2010 10:22 AM
Dibenzo(a,h)anthracene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Fluoranthene	ND		18	µg/Kg-dry	1	8/10/2010 10:22 AM
Fluorene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Indeno(1,2,3-cd)pyrene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Naphthalene	ND		18	µg/Kg-dry	1	8/10/2010 10:22 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Laboratory Group****Date:** 13-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**Sample ID:** A-20-3-101-S Federal  
**Collection Date:** 8/5/2010 02:15 PM

**Work Order:** 1008168  
**Lab ID:** 1008168-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Perylene	ND		12	µg/Kg-dry	1	8/10/2010 10:22 AM
Phenanthrene	ND		29	µg/Kg-dry	1	8/10/2010 10:22 AM
Phenol	ND		5.9	µg/Kg-dry	1	8/10/2010 10:22 AM
Pyrene	ND		18	µg/Kg-dry	1	8/10/2010 10:22 AM
Surr: 2-Fluorobiphenyl	27.4	S	45-105	%REC	1	8/10/2010 10:22 AM
Surr: 4-Terphenyl-d14	65.6		30-125	%REC	1	8/10/2010 10:22 AM
Surr: Nitrobenzene-d5	51.2		35-100	%REC	1	8/10/2010 10:22 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>CW</b>
Benzene	ND		20	µg/Kg-dry	100	8/10/2010 08:02 AM
Ethylbenzene	ND		14	µg/Kg-dry	100	8/10/2010 08:02 AM
<b>m,p-Xylene</b>	<b>130</b>		<b>19</b>	<b>µg/Kg-dry</b>	100	8/10/2010 08:02 AM
<b>o-Xylene</b>	<b>24</b>		<b>15</b>	<b>µg/Kg-dry</b>	100	8/10/2010 08:02 AM
Toluene	ND		14	µg/Kg-dry	100	8/10/2010 08:02 AM
<b>Xylenes, Total</b>	<b>160</b>		<b>33</b>	<b>µg/Kg-dry</b>	100	8/10/2010 08:02 AM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>JJG</b>
<b>Moisture</b>	<b>16</b>		<b>0.010</b>	<b>% of sample</b>	1	8/9/2010 04:18 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



## ALS Laboratory Group

Date: 13-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**Sample ID:** A-20-3-101-S Federal Background  
**Collection Date:** 8/5/2010 02:15 PM

**Work Order:** 1008168  
**Lab ID:** 1008168-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>CES</b>
Arsenic	6.0		0.59	mg/Kg-dry	1	8/10/2010 01:00 PM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>KV</b>
Moisture	16		0.010	% of sample	1	8/6/2010 04:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 13-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**Sample ID:** 35-1 Duncan Fed.  
**Collection Date:** 8/5/2010 09:45 AM

**Work Order:** 1008168  
**Lab ID:** 1008168-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>SW8015M</b>					Prep Date: 8/8/2010	Analyst: RM
<b>ERO (C8-C36)</b>	<b>50</b>		<b>6.0</b>	<b>mg/Kg-dry</b>	1	8/11/2010
Surr: 4-Terphenyl-d14	104		30-125	%REC	1	8/11/2010
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>SW8015</b>						Analyst: RM
<b>GRO (C5-C12)</b>	<b>ND</b>		<b>3,000</b>	<b>µg/Kg-dry</b>	100	8/12/2010
Surr: Toluene-d8	98.5		50-150	%REC	100	8/12/2010
<b>MERCURY BY CVAA</b>						
<b>SW7471</b>					Prep Date: 8/9/2010	Analyst: RB
Mercury	ND		0.021	mg/Kg-dry	1	8/9/2010 06:33 PM
<b>METALS BY ICP-MS</b>						
<b>SW6020A</b>					Prep Date: 8/10/2010	Analyst: CES
<b>Arsenic</b>	<b>3.6</b>		<b>0.56</b>	<b>mg/Kg-dry</b>	1	8/10/2010 01:06 PM
<b>Barium</b>	<b>220</b>		<b>5.6</b>	<b>mg/Kg-dry</b>	10	8/10/2010 03:20 PM
<b>Cadmium</b>	<b>0.41</b>		<b>0.23</b>	<b>mg/Kg-dry</b>	1	8/10/2010 01:06 PM
<b>Chromium</b>	<b>9.7</b>		<b>0.56</b>	<b>mg/Kg-dry</b>	1	8/10/2010 01:06 PM
<b>Copper</b>	<b>15</b>		<b>0.56</b>	<b>mg/Kg-dry</b>	1	8/10/2010 01:06 PM
<b>Lead</b>	<b>14</b>		<b>0.56</b>	<b>mg/Kg-dry</b>	1	8/10/2010 01:06 PM
<b>Nickel</b>	<b>12</b>		<b>0.56</b>	<b>mg/Kg-dry</b>	1	8/10/2010 01:06 PM
Selenium	ND		0.56	mg/Kg-dry	1	8/10/2010 01:06 PM
Silver	ND		0.56	mg/Kg-dry	1	8/10/2010 01:06 PM
<b>Zinc</b>	<b>52</b>		<b>1.1</b>	<b>mg/Kg-dry</b>	1	8/10/2010 01:06 PM
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS) - SIM</b>						
<b>SW8270M</b>					Prep Date: 8/8/2010	Analyst: HL
1-Methylnaphthalene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
2-Methylnaphthalene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Acenaphthene	ND		6.1	µg/Kg-dry	1	8/10/2010 11:01 AM
Acenaphthylene	ND		18	µg/Kg-dry	1	8/10/2010 11:01 AM
Anthracene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Benzo(a)anthracene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Benzo(a)pyrene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Benzo(b)fluoranthene	ND		24	µg/Kg-dry	1	8/10/2010 11:01 AM
Benzo(b-k)fluoranthene	ND		24	µg/Kg-dry	1	8/10/2010 11:01 AM
Benzo(e)pyrene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Benzo(g,h,i)perylene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Benzo(k)fluoranthene	ND		24	µg/Kg-dry	1	8/10/2010 11:01 AM
Chrysene	ND		6.1	µg/Kg-dry	1	8/10/2010 11:01 AM
Dibenzo(a,h)anthracene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Fluoranthene	ND		18	µg/Kg-dry	1	8/10/2010 11:01 AM
Fluorene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Indeno(1,2,3-cd)pyrene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Naphthalene	ND		18	µg/Kg-dry	1	8/10/2010 11:01 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Laboratory Group**

Date: 13-Aug-10

**Client:** HRL Compliance Solutions  
**Project:** Encana Pit Closure #10-418 8/5/10  
**Sample ID:** 35-1 Duncan Fed.  
**Collection Date:** 8/5/2010 09:45 AM

**Work Order:** 1008168  
**Lab ID:** 1008168-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Perylene	ND		12	µg/Kg-dry	1	8/10/2010 11:01 AM
Phenanthrene	ND		30	µg/Kg-dry	1	8/10/2010 11:01 AM
Phenol	ND		6.1	µg/Kg-dry	1	8/10/2010 11:01 AM
Pyrene	ND		18	µg/Kg-dry	1	8/10/2010 11:01 AM
Surr: 2-Fluorobiphenyl	19.0	S	45-105	%REC	1	8/10/2010 11:01 AM
Surr: 4-Terphenyl-d14	108		30-125	%REC	1	8/10/2010 11:01 AM
Surr: Nitrobenzene-d5	45.6		35-100	%REC	1	8/10/2010 11:01 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>CW</b>
Benzene	ND		21	µg/Kg-dry	100	8/10/2010 07:34 AM
Ethylbenzene	ND		15	µg/Kg-dry	100	8/10/2010 07:34 AM
m,p-Xylene	ND		19	µg/Kg-dry	100	8/10/2010 07:34 AM
o-Xylene	ND		15	µg/Kg-dry	100	8/10/2010 07:34 AM
Toluene	ND		14	µg/Kg-dry	100	8/10/2010 07:34 AM
Xylenes, Total	ND		34	µg/Kg-dry	100	8/10/2010 07:34 AM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>JJG</b>
Moisture	18		0.010	% of sample	1	8/9/2010 04:18 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Laboratory Group

Date: 13-Aug-10

**Client:** HRL Compliance Solutions

**Project:** Encana Pit Closure #10-418 8/5/10

**Sample ID:** 35-1 Duncan Fed. Background

**Collection Date:** 8/5/2010 09:45 AM

**Work Order:** 1008168

**Lab ID:** 1008168-04

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>8/10/2010</b>	Analyst: <b>CES</b>
Arsenic	4.6		0.67	mg/Kg-dry	1	8/10/2010 01:12 PM
<b>MOISTURE</b>			<b>A2540 B</b>			Analyst: <b>KV</b>
Moisture	27		0.010	% of sample	1	8/6/2010 04:00 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Laboratory Group

Date: 13-Aug-10

**Client:** HRL Compliance Solutions

**Work Order:** 1008168

**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **28544**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>DBLKS1-28544-28544</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385476</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	ND	5.0								
<i>Surr: 4-Terphenyl-d14</i>	2.463	0	2	0	123	30-125	0			

<b>LCS</b>	Sample ID: <b>DLCSS1-28544-28544</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385478</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	353.2	5.0	400	0	88.3	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	1.732	0	2	0	86.6	30-125	0			

<b>LCSD</b>	Sample ID: <b>DLCSDS1-28544-28544</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID:	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385477</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	372.2	5.0	400	0	93	60-130	353.2	5.23	30	
<i>Surr: 4-Terphenyl-d14</i>	1.784	0	2	0	89.2	30-125	1.732	2.94	30	

<b>MS</b>	Sample ID: <b>1008168-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID: <b>A-20-3-101-S Federal</b>	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385473</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	519.4	5.0	398.6	239.9	70.1	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	1.547	0	1.993	0	77.6	30-125	0			

<b>MSD</b>	Sample ID: <b>1008168-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/11/2010</b>			
Client ID: <b>A-20-3-101-S Federal</b>	Run ID: <b>GC8_100811A</b>				SeqNo: <b>1385474</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C8-C36)	507.9	4.9	395.5	239.9	67.8	60-130	519.4	2.24	30	
<i>Surr: 4-Terphenyl-d14</i>	1.516	0	1.978	0	76.6	30-125	1.547	2.07	30	

The following samples were analyzed in this batch:

1008168-01A	1008168-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **R79955**      Instrument ID **GC6**      Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MB-R79955-R79955</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010</b>			
Client ID:	Run ID: <b>GC6_100812A</b>				SeqNo: <b>1385467</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C5-C12)	ND	200								
<i>Surr: Toluene-d8</i>	22.69	0	20	0	113	70-130	0			

<b>LCS</b>	Sample ID: <b>LCS-R79955-R79955</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010</b>			
Client ID:	Run ID: <b>GC6_100812A</b>				SeqNo: <b>1385468</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C5-C12)	22450	200	25000	0	89.8	70-130	0			
<i>Surr: Toluene-d8</i>	17.22	0	20	0	86.1	70-130	0			

<b>LCSD</b>	Sample ID: <b>LCSD-R79955-R79955</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/12/2010</b>			
Client ID:	Run ID: <b>GC6_100812A</b>				SeqNo: <b>1385470</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C5-C12)	23350	200	25000	0	93.4	70-130	22450	3.95	30	
<i>Surr: Toluene-d8</i>	17.65	0	20	0	88.3	70-130	17.22	2.48	30	

The following samples were analyzed in this batch:

1008168-01A	1008168-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **28563** Instrument ID **HG1** Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-28563-28563</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/9/2010 05:44 PM</b>			
Client ID:	Run ID: <b>HG1_100809C</b>				SeqNo: <b>1383610</b>		Prep Date: <b>8/9/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

<b>LCS</b>	Sample ID: <b>LCS-28563-28563</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/9/2010 05:46 PM</b>			
Client ID:	Run ID: <b>HG1_100809C</b>				SeqNo: <b>1383611</b>		Prep Date: <b>8/9/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1968	0.020	0.1665	0	118	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-28563-28563</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/9/2010 05:48 PM</b>			
Client ID:	Run ID: <b>HG1_100809C</b>				SeqNo: <b>1383612</b>		Prep Date: <b>8/9/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1983	0.020	0.1665	0	119	80-120	0.1968	0.759	20	

<b>MS</b>	Sample ID: <b>1008162-09AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/9/2010 06:10 PM</b>			
Client ID:	Run ID: <b>HG1_100809C</b>				SeqNo: <b>1383624</b>		Prep Date: <b>8/9/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1919	0.020	0.164	0.00298	115	75-125	0			

<b>MSD</b>	Sample ID: <b>1008162-09AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/9/2010 06:12 PM</b>			
Client ID:	Run ID: <b>HG1_100809C</b>				SeqNo: <b>1383625</b>		Prep Date: <b>8/9/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1917	0.020	0.1638	0.00298	115	75-125	0.1919	0.0785	35	

The following samples were analyzed in this batch:

1008168-01B	1008168-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

# QC BATCH REPORT

Batch ID: **28569** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-28569-28569</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>8/10/2010 12:26 PM</b>			
Client ID:	Run ID: <b>ICPMS1_100810A</b>			SeqNo: <b>1383926</b>			Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.01014	0.25								J
Cadmium	0.01872	0.10								J
Chromium	0.005225	0.25								J
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	0.00622	0.25								J
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

<b>LCS</b>	Sample ID: <b>LCS-28569-28569</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>8/10/2010 12:32 PM</b>			
Client ID:	Run ID: <b>ICPMS1_100810A</b>			SeqNo: <b>1383927</b>			Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	2.144	0.25	2.5	0	85.8	80-120	0			
Barium	2.436	0.25	2.5	0	97.5	80-120	0			
Cadmium	2.216	0.10	2.5	0	88.7	80-120	0			
Chromium	2.408	0.25	2.5	0	96.3	80-120	0			
Copper	2.456	0.25	2.5	0	98.3	80-120	0			
Lead	2.393	0.25	2.5	0	95.7	80-120	0			
Nickel	2.429	0.25	2.5	0	97.2	80-120	0			
Selenium	2.198	0.25	2.5	0	87.9	80-120	0			
Silver	2.374	0.25	2.5	0	95	80-120	0			
Zinc	2.128	0.50	2.5	0	85.1	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-28569-28569</b>			Units: <b>mg/Kg</b>			Analysis Date: <b>8/10/2010 12:38 PM</b>			
Client ID:	Run ID: <b>ICPMS1_100810A</b>			SeqNo: <b>1383928</b>			Prep Date: <b>8/10/2010</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	2.146	0.25	2.5	0	85.9	80-120	2.144	0.117	20	
Barium	2.471	0.25	2.5	0	98.8	80-120	2.436	1.41	20	
Cadmium	2.245	0.10	2.5	0	89.8	80-120	2.216	1.28	20	
Chromium	2.435	0.25	2.5	0	97.4	80-120	2.408	1.09	20	
Copper	2.49	0.25	2.5	0	99.6	80-120	2.456	1.35	20	
Lead	2.421	0.25	2.5	0	96.8	80-120	2.393	1.16	20	
Nickel	2.488	0.25	2.5	0	99.5	80-120	2.429	2.4	20	
Selenium	2.193	0.25	2.5	0	87.7	80-120	2.198	0.228	20	
Silver	2.412	0.25	2.5	0	96.5	80-120	2.374	1.59	20	
Zinc	2.2	0.50	2.5	0	88	80-120	2.128	3.37	20	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **28569** Instrument ID **ICPMS1** Method: **SW6020A**

MS				Units: mg/Kg			Analysis Date: 8/10/2010 01:53 PM			
Sample ID: <b>1008170-01A MS</b>		Run ID: <b>ICPMS1_100810A</b>		SeqNo: <b>1383937</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>		
Client ID:										
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.585	0.48	4.785	0.6373	82.5	80-120	0			
Barium	11.8	0.48	4.785	6.816	104	80-120	0			
Cadmium	4.271	0.19	4.785	0.05327	88.1	80-120	0			
Chromium	6.234	0.48	4.785	1.75	93.7	80-120	0			
Copper	5.056	0.48	4.785	0.5268	94.6	80-120	0			
Lead	6.591	0.48	4.785	1.974	96.5	80-120	0			
Nickel	6.605	0.48	4.785	2.096	94.2	80-120	0			
Selenium	4.049	0.48	4.785	0.02034	84.2	80-120	0			
Silver	4.371	0.48	4.785	0.00261	91.3	80-120	0			
Zinc	10.55	0.96	4.785	6.623	82	80-120	0			

MSD				Units: mg/Kg			Analysis Date: 8/10/2010 01:59 PM			
Sample ID: <b>1008170-01A MSD</b>		Run ID: <b>ICPMS1_100810A</b>		SeqNo: <b>1383938</b>		Prep Date: <b>8/10/2010</b>		DF: <b>1</b>		
Client ID:										
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.565	0.48	4.776	0.6373	82.3	80-120	4.585	0.421	25	
Barium	11.41	0.48	4.776	6.816	96.3	80-120	11.8	3.32	25	
Cadmium	4.149	0.19	4.776	0.05327	85.8	80-120	4.271	2.89	25	
Chromium	6.088	0.48	4.776	1.75	90.8	80-120	6.234	2.38	25	
Copper	4.92	0.48	4.776	0.5268	92	80-120	5.056	2.72	25	
Lead	6.311	0.48	4.776	1.974	90.8	80-120	6.591	4.34	25	
Nickel	6.521	0.48	4.776	2.096	92.7	80-120	6.605	1.27	25	
Selenium	4.039	0.48	4.776	0.02034	84.2	80-120	4.049	0.238	25	
Silver	4.196	0.48	4.776	0.00261	87.8	80-120	4.371	4.1	25	
Zinc	10.41	0.96	4.776	6.623	79.3	80-120	10.55	1.29	25	S

The following samples were analyzed in this batch:

1008168-01B	1008168-02A	1008168-03B
1008168-04A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

# QC BATCH REPORT

Batch ID: **28545** Instrument ID **SVMS4** Method: **SW8270M**

MBLK		Sample ID: <b>SBLKS1-28545-28545</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/10/2010 09:44 AM</b>		
Client ID:		Run ID: <b>SVMS4_100809A</b>				SeqNo: <b>1383948</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
Acenaphthene	ND	5.0								
Acenaphthylene	ND	15								
Anthracene	ND	10								
Benzo(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	20								
Benzo(b-k)fluoranthene	ND	20								
Benzo(e)pyrene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	20								
Chrysene	ND	5.0								
Dibenzo(a,h)anthracene	ND	10								
Fluoranthene	ND	15								
Fluorene	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Naphthalene	ND	15								
Perylene	ND	10								
Phenanthrene	ND	25								
Phenol	ND	5.0								
Pyrene	ND	15								
<i>Surr: 2-Fluorobiphenyl</i>	<i>85.33</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>51.2</i>	<i>45-105</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>141.3</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>84.8</i>	<i>30-125</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>67.67</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>40.6</i>	<i>35-100</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **28545**      Instrument ID **SVMS4**      Method: **SW8270M**

LCS		Sample ID: <b>SLCSS1-28545-28545</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/10/2010 07:11 AM</b>		
Client ID:		Run ID: <b>SVMS4_100809A</b>				SeqNo: <b>1383944</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	60	10	66.67	0	90	50-110	0			S
Acenaphthene	ND	5.0	66.67	0	0	35-110	0			
Acenaphthylene	64.67	15	66.67	0	97	35-115	0			
Anthracene	60.67	10	66.67	0	91	45-125	0			
Benzo(a)anthracene	57.67	10	66.67	0	86.5	50-105	0			
Benzo(a)pyrene	59	10	66.67	0	88.5	40-135	0			
Benzo(b)fluoranthene	54.33	20	66.67	0	81.5	55-120	0			
Benzo(b-k)fluoranthene	119.3	20	133.3	0	89.5	55-120	0			
Benzo(g,h,i)perylene	54	10	66.67	0	81	55-115	0			
Benzo(k)fluoranthene	65	20	66.67	0	97.5	55-120	0			
Chrysene	51	5.0	66.67	0	76.5	55-120	0			
Dibenzo(a,h)anthracene	63	10	66.67	0	94.5	45-115	0			
Fluoranthene	72	15	66.67	0	108	40-135	0			
Fluorene	58.67	10	66.67	0	88	45-105	0			
Indeno(1,2,3-cd)pyrene	59	10	66.67	0	88.5	55-135	0			
Naphthalene	38.33	15	66.67	0	57.5	50-110	0			
Phenanthrene	58	25	66.67	0	87	55-125	0			
Phenol	49.67	5.0	66.67	0	74.5	40-110	0			
Pyrene	68.67	15	66.67	0	103	50-115	0			
<i>Surr: 2-Fluorobiphenyl</i>	<i>133.3</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>80</i>	<i>45-105</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>164.3</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>98.6</i>	<i>30-125</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>102.7</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>61.6</i>	<i>35-100</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **28545**      Instrument ID **SVMS4**      Method: **SW8270M**

LCSD		Sample ID: <b>SLCSDS1-28545-28545</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/10/2010 07:49 AM</b>		
Client ID:		Run ID: <b>SVMS4_100809A</b>				SeqNo: <b>1383945</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	38.67	10	66.67	0	58	50-110	60	43.2	40	R
Acenaphthene	24	5.0	66.67	0	36	35-110	0	200	40	R
Acenaphthylene	38.67	15	66.67	0	58	35-115	64.67	50.3	40	R
Anthracene	52.67	10	66.67	0	79	45-125	60.67	14.1	40	
Benzo(a)anthracene	60.33	10	66.67	0	90.5	50-105	57.67	4.52	40	
Benzo(a)pyrene	60.33	10	66.67	0	90.5	40-135	59	2.23	40	
Benzo(b)fluoranthene	52	20	66.67	0	78	55-120	54.33	4.39	40	
Benzo(b-k)fluoranthene	124	20	133.3	0	93	55-120	119.3	3.84	40	
Benzo(g,h,i)perylene	55	10	66.67	0	82.5	55-115	54	1.83	40	
Benzo(k)fluoranthene	72	20	66.67	0	108	55-120	65	10.2	40	
Chrysene	62.67	5.0	66.67	0	94	55-120	51	20.5	40	
Dibenzo(a,h)anthracene	65	10	66.67	0	97.5	45-115	63	3.12	40	
Fluoranthene	69	15	66.67	0	104	40-135	72	4.26	40	
Fluorene	43	10	66.67	0	64.5	45-105	58.67	30.8	40	
Indeno(1,2,3-cd)pyrene	62	10	66.67	0	93	55-135	59	4.96	40	
Naphthalene	32.67	15	66.67	0	49	50-110	38.33	16	40	S
Phenanthrene	49.67	25	66.67	0	74.5	55-125	58	15.5	40	
Phenol	45.33	5.0	66.67	0	68	40-110	49.67	9.12	40	
Pyrene	67.67	15	66.67	0	102	50-115	68.67	1.47	40	
<i>Surr: 2-Fluorobiphenyl</i>	<i>40</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>24</i>	<i>45-105</i>	<i>133.3</i>	<i>108</i>	<i>40</i>	<i>SR</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>172.7</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>104</i>	<i>30-125</i>	<i>164.3</i>	<i>4.95</i>	<i>40</i>	
<i>Surr: Nitrobenzene-d5</i>	<i>86</i>	<i>0</i>	<i>166.7</i>	<i>0</i>	<i>51.6</i>	<i>35-100</i>	<i>102.7</i>	<i>17.7</i>	<i>40</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

# QC BATCH REPORT

Batch ID: **28545**      Instrument ID **SVMS4**      Method: **SW8270M**

MS		Sample ID: <b>1008168-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/10/2010 08:27 AM</b>		
Client ID: <b>A-20-3-101-S Federal</b>		Run ID: <b>SVMS4_100809A</b>				SeqNo: <b>1383946</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	41.35	9.8	65.63	2.3	59.5	50-110	0			
Acenaphthene	34.46	4.9	65.63	0	52.5	35-110	0			
Acenaphthylene	50.54	15	65.63	0	77	35-115	0			
Anthracene	58.74	9.8	65.63	0	89.5	45-125	0			
Benzo(a)anthracene	28.88	9.8	65.63	0	44	50-105	0			S
Benzo(a)pyrene	59.4	9.8	65.63	0	90.5	40-135	0			
Benzo(b)fluoranthene	60.38	20	65.63	0	92	55-120	0			
Benzo(b-k)fluoranthene	118.1	20	131.3	0	90	55-120	0			
Benzo(g,h,i)perylene	53.49	9.8	65.63	0	81.5	55-115	0			
Benzo(k)fluoranthene	57.76	20	65.63	0	88	55-120	0			
Chrysene	64.98	4.9	65.63	0	99	55-120	0			
Fluoranthene	66.94	15	65.63	0	102	40-135	0			
Fluorene	52.83	9.8	65.63	0	80.5	45-105	0			
Indeno(1,2,3-cd)pyrene	61.04	9.8	65.63	0	93	55-135	0			
Naphthalene	39.71	15	65.63	1.972	57.5	50-110	0			
Phenanthrene	55.46	25	65.63	2.3	81	55-125	0			
Phenol	49.55	4.9	65.63	0.6572	74.5	40-110	0			
Pyrene	33.47	15	65.63	0	51	50-115	0			
<i>Surr: 2-Fluorobiphenyl</i>	<i>41.68</i>	<i>0</i>	<i>164.1</i>	<i>0</i>	<i>25.4</i>	<i>45-105</i>	<i>0</i>			<i>S</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>79.09</i>	<i>0</i>	<i>164.1</i>	<i>0</i>	<i>48.2</i>	<i>30-125</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>103.7</i>	<i>0</i>	<i>164.1</i>	<i>0</i>	<i>63.2</i>	<i>35-100</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **28545**      Instrument ID **SVMS4**      Method: **SW8270M**

MSD		Sample ID: <b>1008168-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/10/2010 09:06 AM</b>		
Client ID: <b>A-20-3-101-S Federal</b>		Run ID: <b>SVMS4_100809A</b>				SeqNo: <b>1383947</b>		Prep Date: <b>8/8/2010</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Methylnaphthalene	35.92	10	66.52	2.3	50.5	50-110	41.35	14	40	
Acenaphthene	36.59	5.0	66.52	0	55	35-110	34.46	6	40	
Acenaphthylene	52.89	15	66.52	0	79.5	35-115	50.54	4.54	40	
Anthracene	60.87	10	66.52	0	91.5	45-125	58.74	3.56	40	
Benzo(a)anthracene	54.55	10	66.52	0	82	50-105	28.88	61.5	40	R
Benzo(a)pyrene	61.87	10	66.52	0	93	40-135	59.4	4.07	40	
Benzo(b)fluoranthene	75.5	20	66.52	0	114	55-120	60.38	22.3	40	
Benzo(b-k)fluoranthene	120.7	20	133	0	90.8	55-120	118.1	2.18	40	
Benzo(g,h,i)perylene	48.23	10	66.52	0	72.5	55-115	53.49	10.3	40	
Benzo(k)fluoranthene	45.24	20	66.52	0	68	55-120	57.76	24.3	40	
Chrysene	51.55	5.0	66.52	0	77.5	55-120	64.98	23	40	
Fluoranthene	61.2	15	66.52	0	92	40-135	66.94	8.96	40	
Fluorene	53.55	10	66.52	0	80.5	45-105	52.83	1.35	40	
Indeno(1,2,3-cd)pyrene	57.21	10	66.52	0	86	55-135	61.04	6.48	40	
Naphthalene	41.24	15	66.52	1.972	59	50-110	39.71	3.8	40	
Phenanthrene	56.54	25	66.52	2.3	81.5	55-125	55.46	1.94	40	
Phenol	44.9	5.0	66.52	0.6572	66.5	40-110	49.55	9.84	40	
Pyrene	48.56	15	66.52	0	73	50-115	33.47	36.8	40	
<i>Surr: 2-Fluorobiphenyl</i>	48.23	0	166.3	0	29	45-105	41.68	14.6	40	S
<i>Surr: 4-Terphenyl-d14</i>	131	0	166.3	0	78.8	30-125	79.09	49.5	40	R
<i>Surr: Nitrobenzene-d5</i>	83.49	0	166.3	0	50.2	35-100	103.7	21.6	40	

The following samples were analyzed in this batch:

1008168-01A	1008168-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

# QC BATCH REPORT

Batch ID: **R79875** Instrument ID **VMS6** Method: **SW8260**

**MBLK** Sample ID: **VBLKW1-100810-R79875** Units: **µg/L** Analysis Date: **8/10/2010 03:48 AM**  
 Client ID: Run ID: **VMS6\_100810A** SeqNo: **1383807** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								

**LCS** Sample ID: **VLCSW1-100810-R79875** Units: **µg/L** Analysis Date: **8/10/2010 02:26 AM**  
 Client ID: Run ID: **VMS6\_100810A** SeqNo: **1383805** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.47	1.0	20	0	92.4	80-120	0			
Ethylbenzene	19.32	1.0	20	0	96.6	75-125	0			
m,p-Xylene	38.55	2.0	40	0	96.4	75-130	0			
o-Xylene	19.91	1.0	20	0	99.6	80-120	0			
Toluene	18.41	1.0	20	0	92	75-120	0			
Xylenes, Total	58.46	2.0	60	0	97.4	75-130	0			

**LCSD** Sample ID: **VLCSW1-100810-R79875** Units: **µg/L** Analysis Date: **8/10/2010 02:53 AM**  
 Client ID: Run ID: **VMS6\_100810A** SeqNo: **1383806** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	17.69	1.0	20	0	88.4	80-120	18.47	4.31	30	
Ethylbenzene	18.47	1.0	20	0	92.4	75-125	19.32	4.5	30	
m,p-Xylene	37.33	2.0	40	0	93.3	75-130	38.55	3.22	30	
o-Xylene	19.14	1.0	20	0	95.7	80-120	19.91	3.94	30	
Toluene	17.68	1.0	20	0	88.4	75-120	18.41	4.05	30	
Xylenes, Total	56.47	2.0	60	0	94.1	75-130	58.46	3.46	30	

**MS** Sample ID: **1008167-03A MS** Units: **µg/L** Analysis Date: **8/10/2010 11:37 AM**  
 Client ID: Run ID: **VMS6\_100810A** SeqNo: **1383875** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	907.2	20	400	501.8	101	80-120	0			
Ethylbenzene	380.8	20	400	10	92.7	75-125	0			
m,p-Xylene	1019	40	800	245.2	96.8	75-130	0			
o-Xylene	411.4	20	400	25.2	96.6	80-120	0			
Toluene	378	20	400	23.2	88.7	75-120	0			
Xylenes, Total	1431	40	1200	270.4	96.7	75-130	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **R79875** Instrument ID **VMS6** Method: **SW8260**

<b>MSD</b>	Sample ID: <b>1008167-03A MSD</b>				Units: <b>µg/L</b>			Analysis Date: <b>8/10/2010 12:04 PM</b>		
Client ID:	Run ID: <b>VMS6_100810A</b>				SeqNo: <b>1383876</b>		Prep Date:		DF: <b>20</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	886.6	20	400	501.8	96.2	80-120	907.2	2.3	30	
Ethylbenzene	371	20	400	10	90.2	75-125	380.8	2.61	30	
m,p-Xylene	994.6	40	800	245.2	93.7	75-130	1019	2.44	30	
o-Xylene	402.6	20	400	25.2	94.4	80-120	411.4	2.16	30	
Toluene	374.8	20	400	23.2	87.9	75-120	378	0.85	30	
Xylenes, Total	1397	40	1200	270.4	93.9	75-130	1431	2.36	30	

The following samples were analyzed in this batch:

1008168-01A	1008168-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **R79855**      Instrument ID **MOIST**      Method: **A2540 B**

<b>MBLK</b>	Sample ID: <b>WBLKS1-100806-R79855</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/6/2010 04:00 PM</b>		
Client ID:	Run ID: <b>MOIST_100806C</b>				SeqNo: <b>1382945</b>			Prep Date:      DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.010								

<b>DUP</b>	Sample ID: <b>1008162-21A DUP1</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/6/2010 04:00 PM</b>		
Client ID:	Run ID: <b>MOIST_100806C</b>				SeqNo: <b>1382924</b>			Prep Date:      DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.15	0.010	0	0	0	0-0	13.62	3.56	20	

<b>DUP</b>	Sample ID: <b>1008162-21A DUP2</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/6/2010 04:00 PM</b>		
Client ID:	Run ID: <b>MOIST_100806C</b>				SeqNo: <b>1382925</b>			Prep Date:      DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.57	0.010	0	0	0	0-0	13.62	0.421	20	

<b>DUP</b>	Sample ID: <b>1008171-05B DUP</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/6/2010 04:00 PM</b>		
Client ID:	Run ID: <b>MOIST_100806C</b>				SeqNo: <b>1382941</b>			Prep Date:      DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.35	0.010	0	0	0	0-0	13.88	3.9	20	

The following samples were analyzed in this batch:

1008168-01B	1008168-02A	1008168-03B
1008168-04A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1008168  
**Project:** Encana Pit Closure #10-418 8/5/10

## QC BATCH REPORT

Batch ID: **R79889** Instrument ID **MOIST** Method: **A2540 B**

<b>MBLK</b>	Sample ID: <b>WBLKS1-100809-R79889</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/9/2010 04:18 PM</b>		
Client ID:	Run ID: <b>MOIST_100809C</b>				SeqNo: <b>1383798</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.010								

<b>DUP</b>	Sample ID: <b>1008210-02A DUP</b>				Units: <b>% of sample</b>			Analysis Date: <b>8/9/2010 04:18 PM</b>		
Client ID:	Run ID: <b>MOIST_100809C</b>				SeqNo: <b>1383802</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.78	0.010	0	0	0	0-0	11.53	2.15	20	

The following samples were analyzed in this batch:

1008168-01A	1008168-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



# ALS Laboratory Group

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## Chain-of-Custody

Form 202r8

WORKORDER #

1008168

PROJECT NAME		ENCANA Pit Closure		SAMPLER		Anne Opitz		DATE				PAGE		1 of 1	
PROJECT No.		10-418		SITE ID				TURNAROUND				DISPOSAL		By Lab or Return to Client	
COMPANY NAME		HRL Compliance Solutions Inc		BILL TO COMPANY		Encana Oil & Gas									
SEND REPORT TO		Herman Lucero		INVOICE ATTN TO		Lannie Massey									
ADDRESS		744 Horizon Ct Suite 40		ADDRESS		1125 Escalante Dr.									
CITY / STATE / ZIP		Grand Junction CO 81506		CITY / STATE / ZIP		Rangely CO 81648									
PHONE		970 243 3271		PHONE		970. 675. 4477									
FAX		970 243 3280		FAX											
E-MAIL		HLUCERO@HRLCOMP.COM		E-MAIL		lannie.massey@encana.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	GRO	DRO	Mercuride	Total metals (see comments) (9/10/1)	Semivols - PAH	Arsenic	
1	A-20-3-101-S Federal	S	8/5	2:15pm	2	440C		X	X	X	X	X	X		
2	A-20-3-101-S Fed. Backgnd	S	8/5	2:15pm	1	440C								X	
3	35-1 Duncan Fed.	S	8/5	9:45am	2	440C		X	X	X	X	X	X		
4	35-1 Duncan Fed Backgnd	S	8/5	9:45am	1	440C								X	

\*Time Zone (Circle): EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments:	For metals, run <del>the</del> COCCL 910-1 Suite. Report total barium and do not run boron	QC PACKAGE (check below)	
		<input checked="" type="checkbox"/> LEVEL II (Standard QC)	
		<input type="checkbox"/> LEVEL III (Std QC + forms)	
		<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035			

SIGNATURE	PRINTED NAME	DATE	TIME
	Anne Opitz	8/5	5:30pm
RECEIVED BY	KEITH WIERENCA	8/6	1100
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

## Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **06-Aug-10 11:00**

Work Order: **1008168**

Received by: **KRW**

Checklist completed by Keith Wurenga 06-Aug-10  
eSignature Date

Reviewed by: Ann Preston 07-Aug-10  
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

00-233-8425

fedex.com 1800.GoFedEx 1800.463.3339

Date: 8/5  
Signature: [Signature]

6601 San Leandro St, Oakland, CA 94601

ENVIRONMENTAL SAMPLING SUPPLY

**CUSTOMER**

32 0331

Form 10 No.

**FedEx Retrieval Copy**

**Express**

1 **From**  
Date: 8/5/10 Sender's FedEx Account Number: \_\_\_\_\_  
Sender's Name: Ann Phone: \_\_\_\_\_  
Company: HPL Compliance Solutions Inc  
Address: 744 Horizon Ct Dept./Floor/Suite/Room: 140  
City: Grand Junction State: CO ZIP: 81506

2 **Your Internal Billing Reference**

3 **To:**  
Recipient's Name: Sample Receiving Phone: 619 399-6070  
Company: ALS Group  
Address: 3352 138th Ave Dept./Floor/Suite/Room: \_\_\_\_\_  
We cannot deliver to P.O. boxes or P.O. ZIP codes.  
Address: \_\_\_\_\_  
Use this line for the HOLD location address or for continuation of your shipping address.  
City: Holland State: MI ZIP: 49429

**HOLD Weekday**  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.

**HOLD Saturday**  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.

**4a Express Package Service**

01 ☒ **FedEx Priority Overnight**  
Next business morning.\* Friday  
shipments will be delivered on Monday  
unless SATURDAY Delivery is selected.

03 ☐ **FedEx 2Day**  
Second business day.\* Thursday  
shipments will be delivered on Monday  
unless SATURDAY Delivery is selected.

05 ☐ **FedEx Standard Overnight**  
Next business afternoon.\*  
Saturday Delivery NOT available.

06 ☐ **FedEx First Overnight**  
Earliest next business morning  
delivery to select locations.\*

20 ☐ **FedEx Express Saver**  
Third business day.\*  
Saturday Delivery NOT available.

**4b Express Freight Service**

70 ☐ **FedEx 1Day Freight**  
Next business day.\*\* Friday shipments will  
be delivered on Monday unless SATURDAY  
Delivery is selected.

80 ☐ **FedEx 2Day Freight**  
Second business day.\*\* Thursday shipments will be delivered  
on Monday unless SATURDAY Delivery is selected.

83 ☐ **FedEx 3Day Freight**  
Third business day.\*\* Saturday Delivery NOT available.

**5 Packaging**

06 ☐ **FedEx Envelope\***

02 ☐ **FedEx Pak\***  
Includes FedEx Small Pak and  
FedEx Large Pak.

03 ☐ **FedEx Box**

04 ☐ **FedEx Tube**

01 ☒ **Other**

**6 Special Handling and Delivery Signature Options**

03 ☐ **SATURDAY DELIVERY**

☐ No Signature Required  
Package may be left without  
obtaining a signature for delivery.

10 ☐ **Direct Signature**  
Someone at recipient's address  
may sign for delivery. Fee applies.

34 ☐ **Indirect Signature**  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. For  
residential deliveries only. Fee applies.

**Does this shipment contain dangerous goods?**

☒ **No** ☐ **Yes**  
One box must be checked.  
Yes As per attached  
Shipper's Declaration. Yes  
Shipper's Declaration  
not required.

06 ☐ **Dry Ice**  
Dry ice, 9 UN 1845

☐ **Cargo Aircraft Only**

**7 Payment Bill to:**

1 ☐ **Sender**  
Acct. No. in Section 2 will be billed.

2 ☒ **Recipient**

3 ☐ **Third Party**

4 ☐ **Credit Card**

5 ☐ **Cash/Check**

Total Packages: \_\_\_\_\_ Total Weight: \_\_\_\_\_ lbs.

Credit Card Auth: \_\_\_\_\_



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## Sample Location Field Map

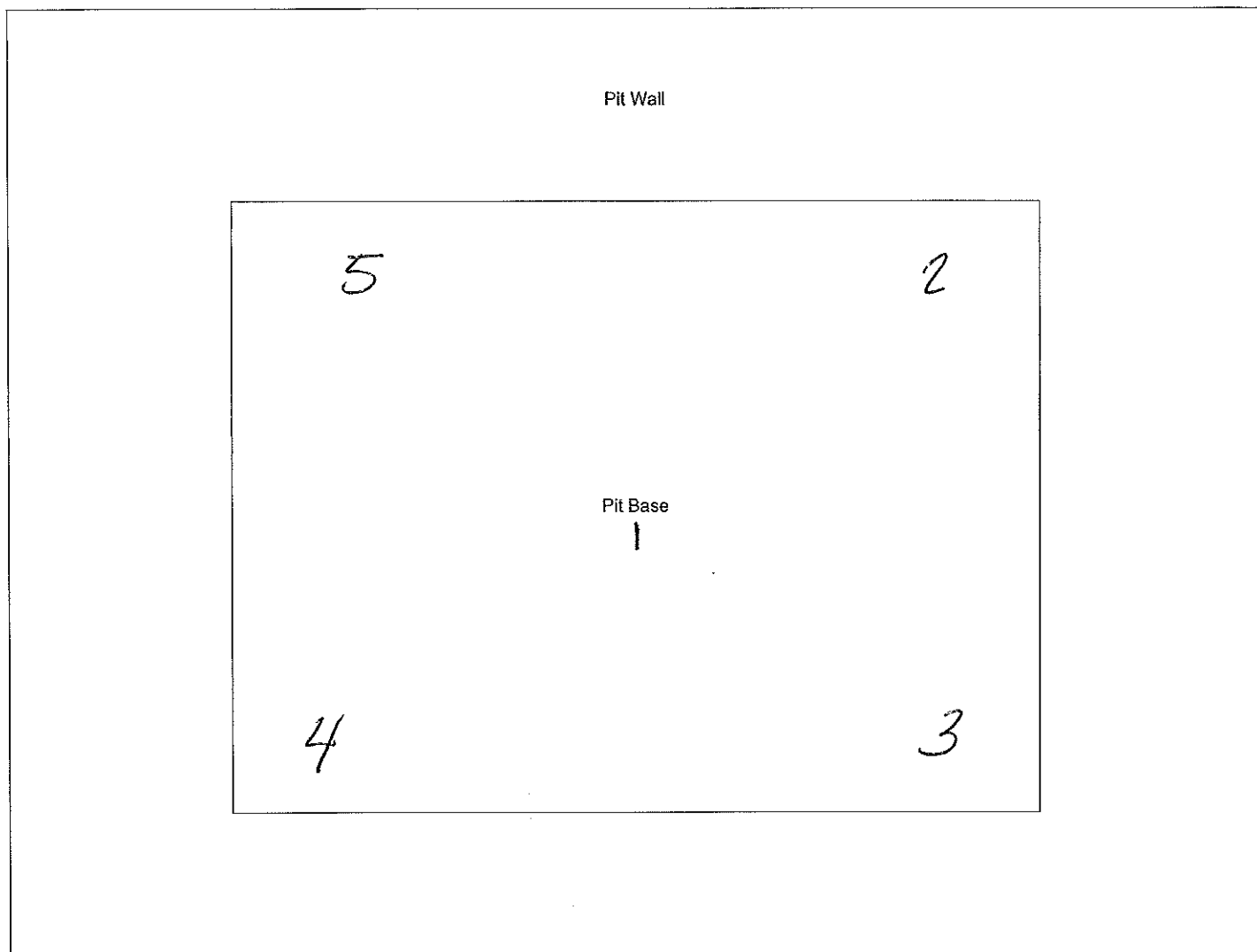
Location: 3102 Brushy Point

Date: 7/27/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: Black net covering pit.  
Removed to collect samples and  
replaced when finished

Red Flag - > 500 ppm

# Sample Location Field Map

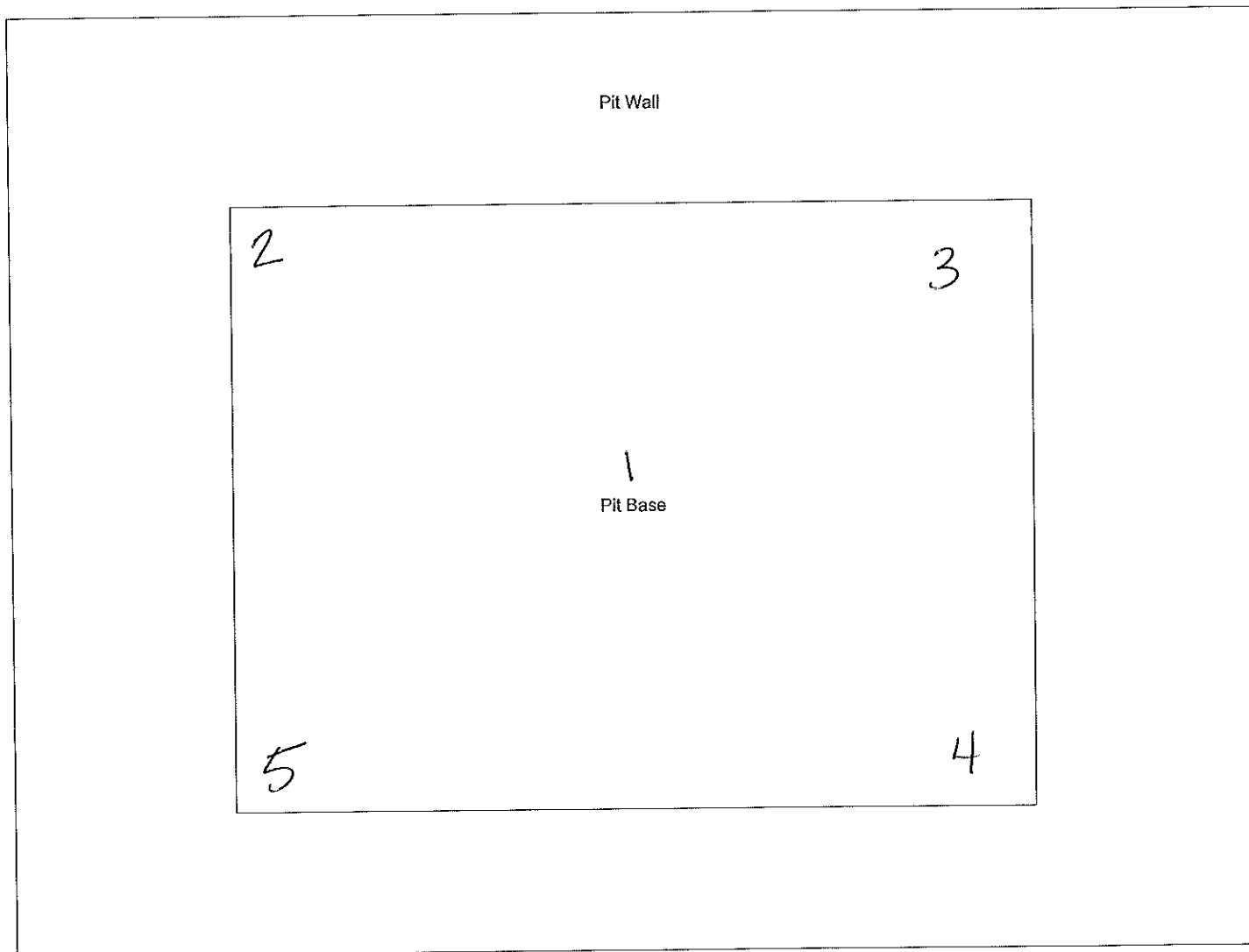
Location: 7315 South Douglas Creek

Date: 7/27/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: Strong H<sub>2</sub>S odor when removing soil

Rebar Flag - 1771 ppm

# Sample Location Field Map

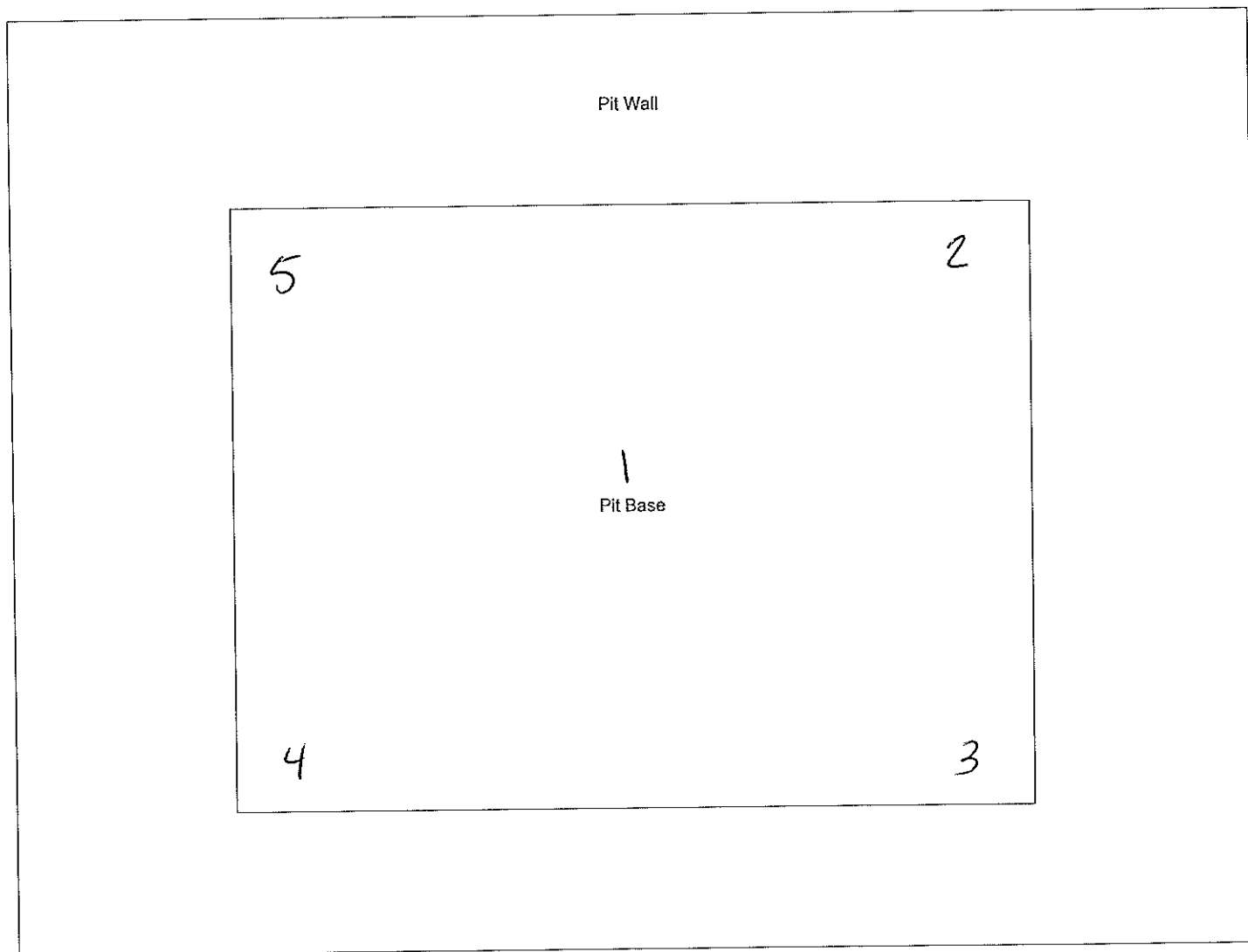
Location: 7334 South Douglas Creek

Date: 7/20/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



## Notes:

Contaminant tank beside pit, no liquid or odor, ~3.5 ft deep

Retro Flag - 548 ppm



# Sample Location Field Map

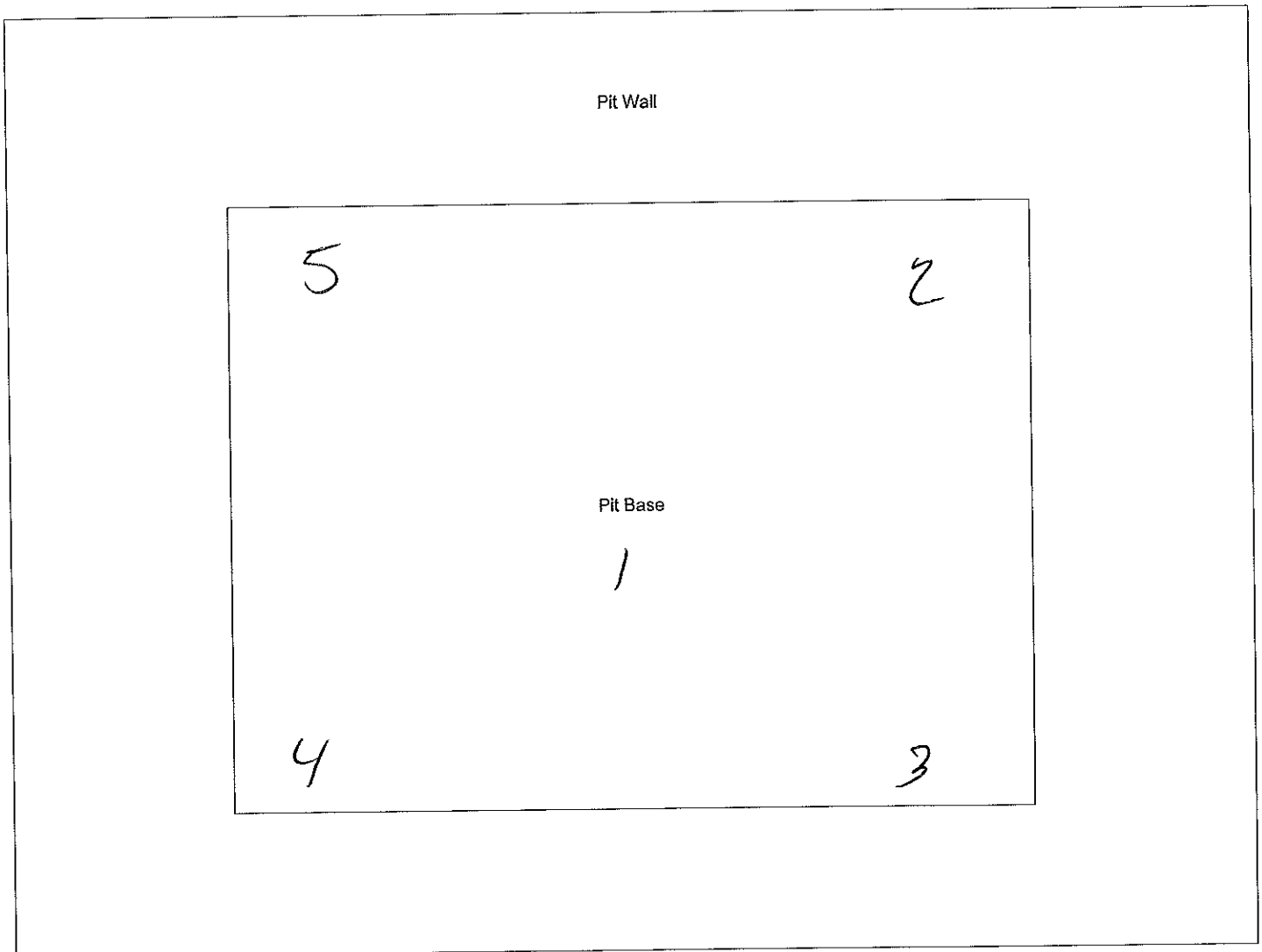
Location: 7408 Foundation Creek B

Date: 7/28/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes:

Pit appears to have been filled. Retro Flag collected but omitted, may not be used

Retro Flag - 314 ppm

# Sample Location Field Map

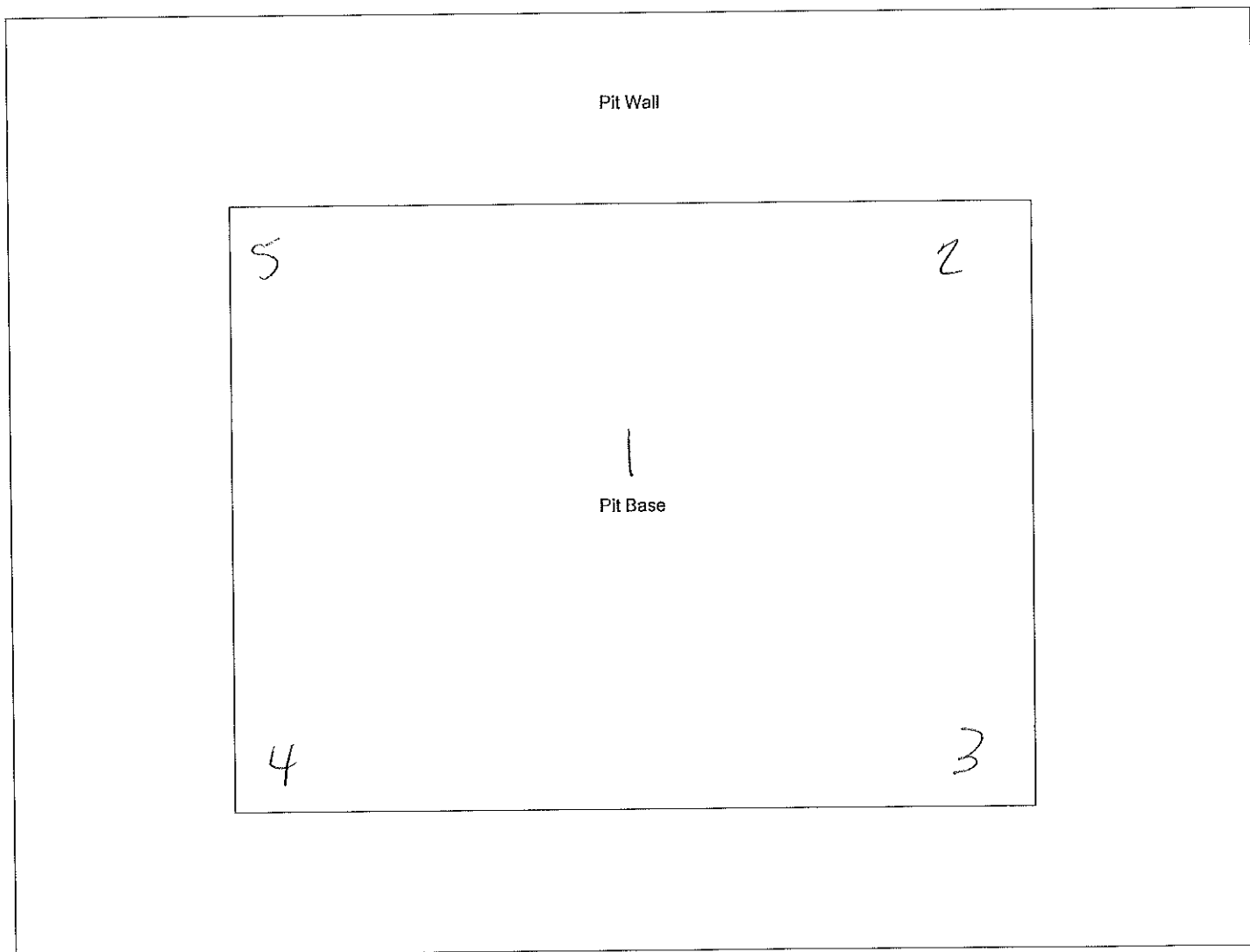
Location: 7303 South Douglas Creek

Date: 7/28/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes:

Small Amount of liquid in pit,  
Strong He odor in Soil

Retro Flag - 1102 ppm

# Sample Location Field Map

Location: 7405 Foundation Creek B

Date: 7/30/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall

5

2

1

Pit Base

4

3

Notes: liquid in pit, strong HE odor.

Second pit with stock tank & pipe leading to well head, on location

petro flag- 784 ppm

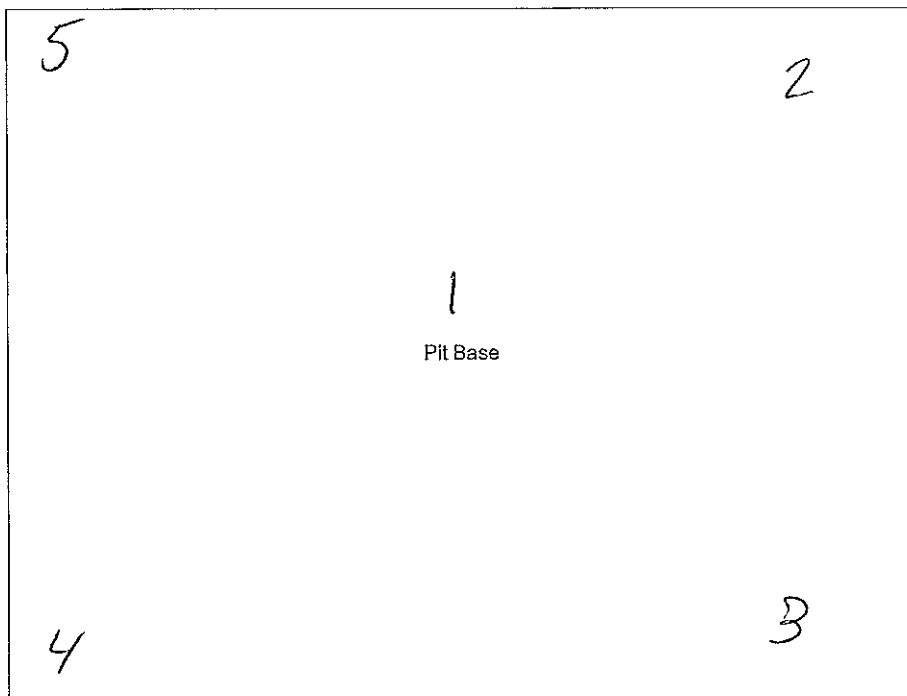
## Sample Location Field Map

Location: 9-14 FED  
Date: 7/30/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall



Notes:

liquid in pit, strong HC odor, dark discoloration in soil

Retro Flag- 2782 ppm

# Sample Location Field Map

Location: 7706 Douglas Pass Unit

Date: 8/3/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall

5

2

1

Pit Base

4

3

Notes: large Pit, light HC odor

Re-to Flag - 2596 ppm

# Sample Location Field Map

Location: 7710 Douglas Pass Unit  
Date: 8/3/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall

Pit Base

5

2

1

4

3

Notes:

pit contained two low points and was higher in the middle, so samples were taken from lower areas

Petro Flag - 642 ppm

# Sample Location Field Map

Location: 7316 South Douglas Creek

Date: 8/4/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall

5

2

1

Pit Base

4

3

Notes: liquid in pit, ~ 1.5 ft, Strong HC odor.

Bird net covered pit, need to be removed. Could not replace

Retro Flag - 3267 ppm

# Sample Location Field Map

Location:

7001 Rock Canyon

Date:

8/4/10

Sampler Name(s):

Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall

5

2

1

Pit Base

4

3

Notes: Strong HC odor, pit covered by net that was removed. Unable to secure the net when finished.

Retro Flag - 1002 ppm



# Sample Location Field Map

Location: 7503 Thunder

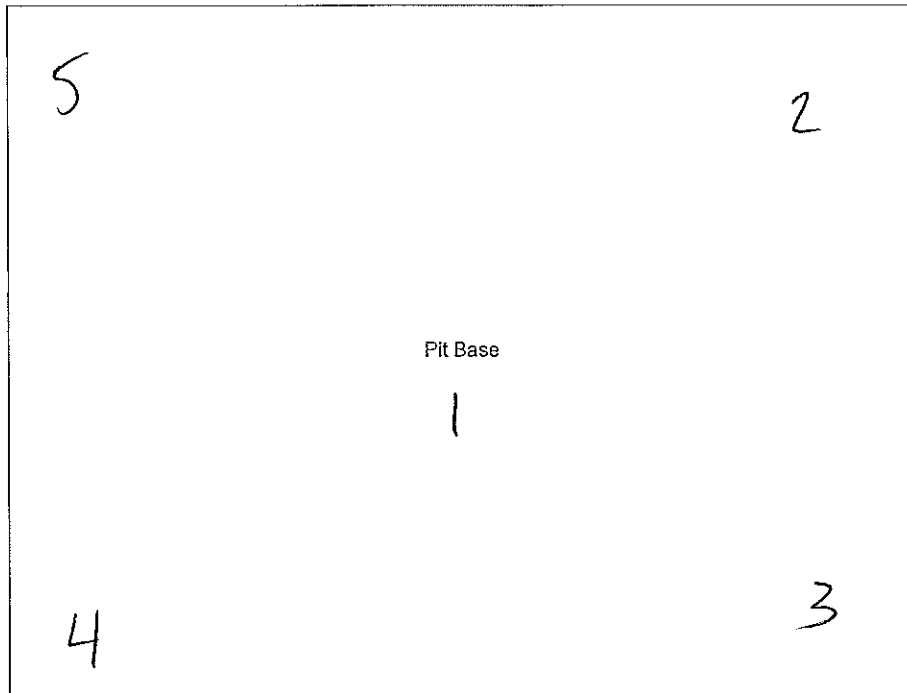
Date: 8/4/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall



Notes:

Pit contained small amount of moisture, strong HC odor

Retro Flag 517

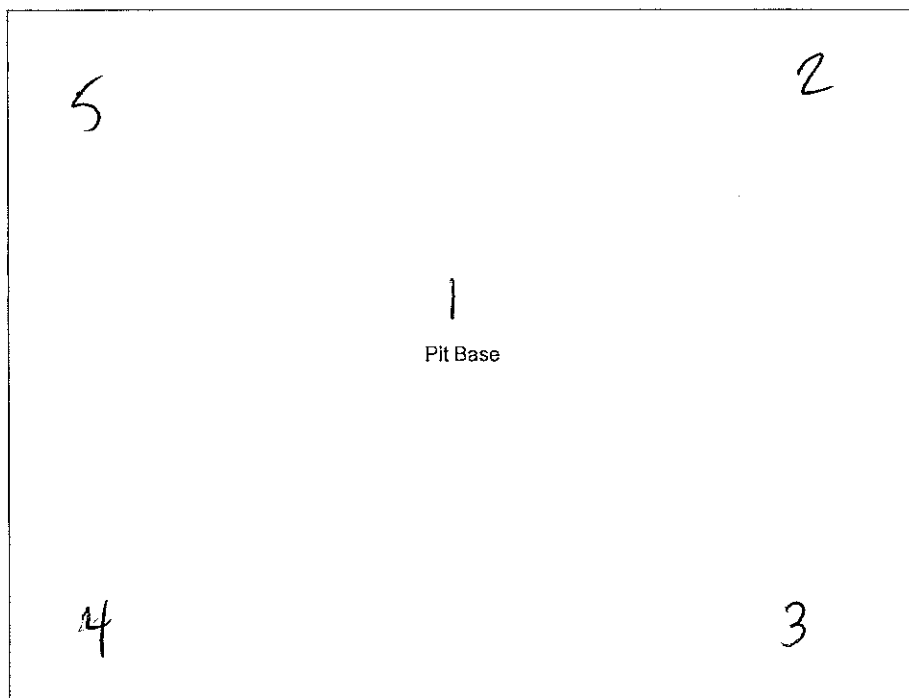
# Sample Location Field Map

Location: 7602 EVACUATION CREEK COM B  
Date: 8/4/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.

Pit Wall



Notes: light HC odor in pit, no liquid

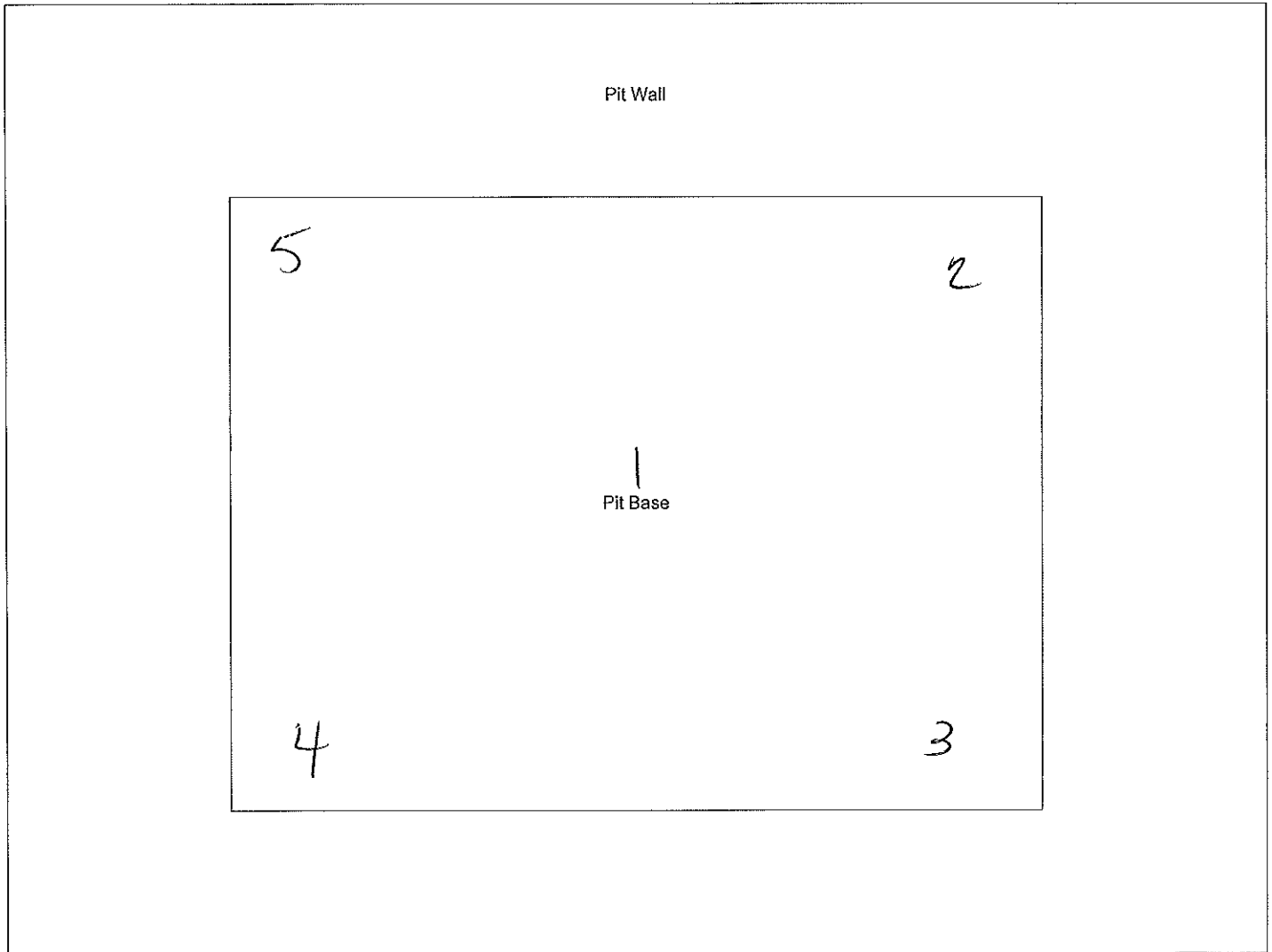
Retro Flag - 646

# Sample Location Field Map

Location: Duncan Fed. 35-1  
Date: 8/5/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: liquid in pit, light HC odor

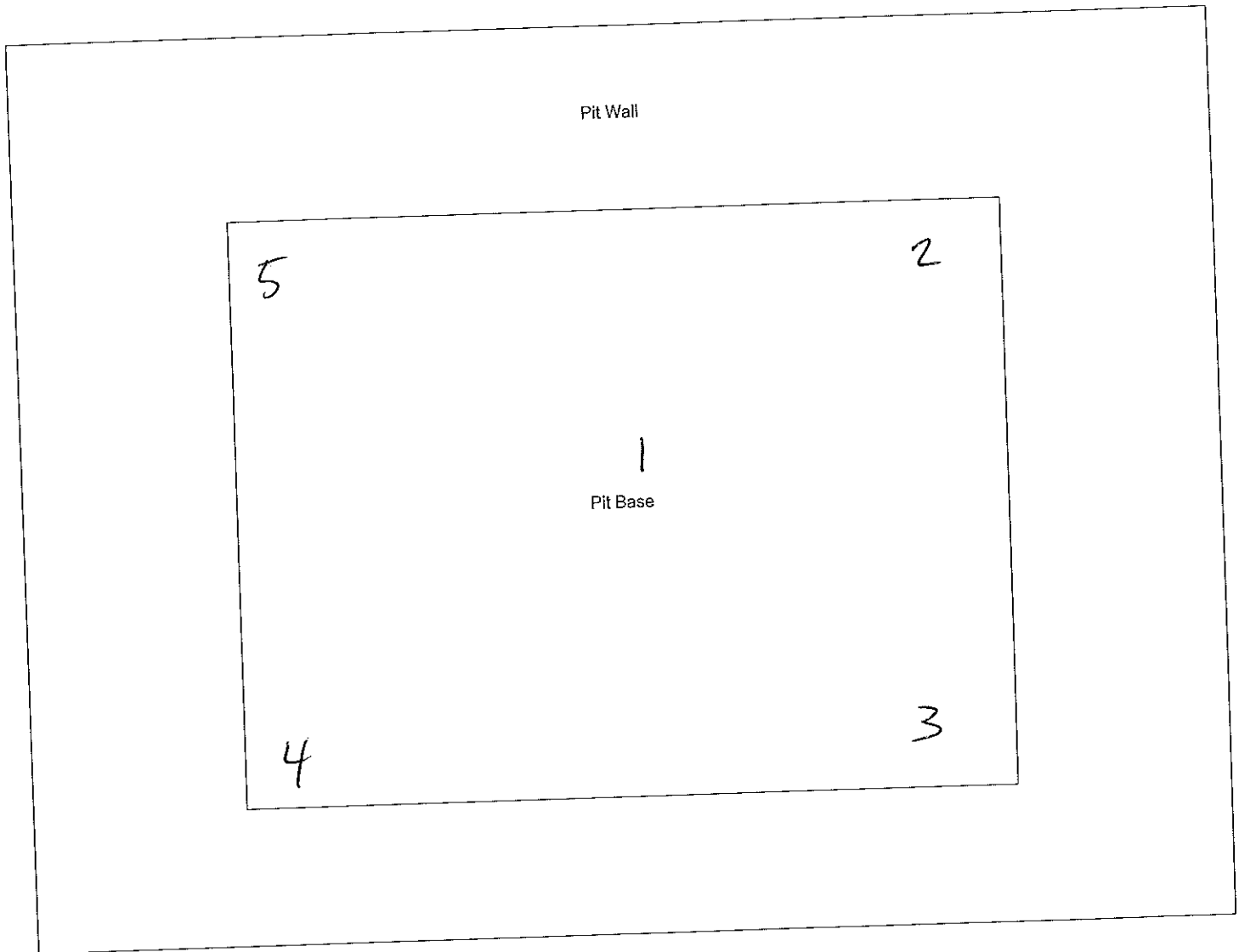
Retro Flag - 242 ppm

# Sample Location Field Map

Location: Cathedral Federal A-20-35-101W  
Date: 8/5/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: pit covered by bird net, removed to collect samples. New growth present in veg., no liquid

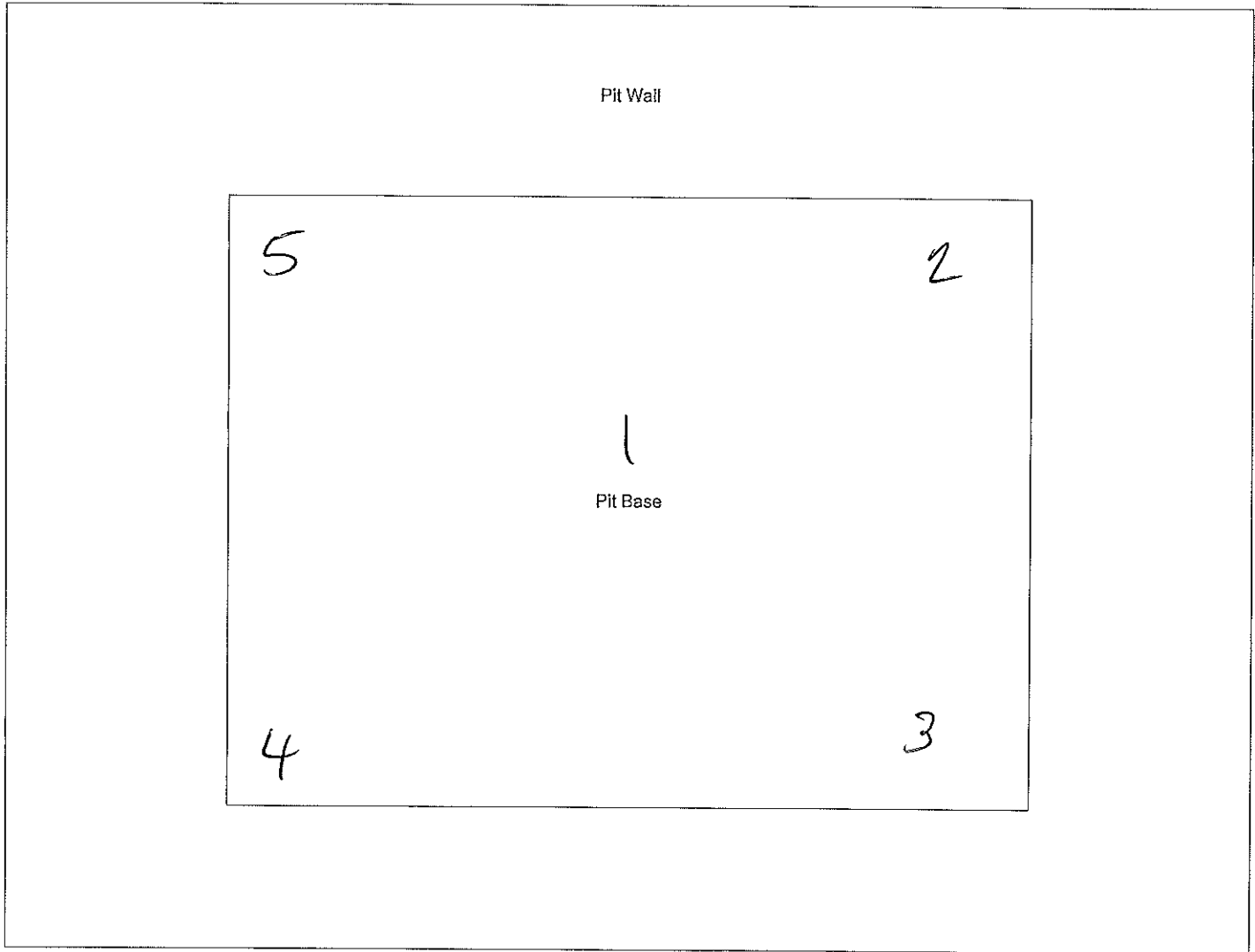
Retro Flag - 441 ppm

# Sample Location Field Map

Location: Cathedral Federal 22-2  
Date: 8/6/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: Pit is large in size, 10ft deep, 10x15ft  
No Odor or liquid

Retro Flag- 503 ppm

# Sample Location Field Map

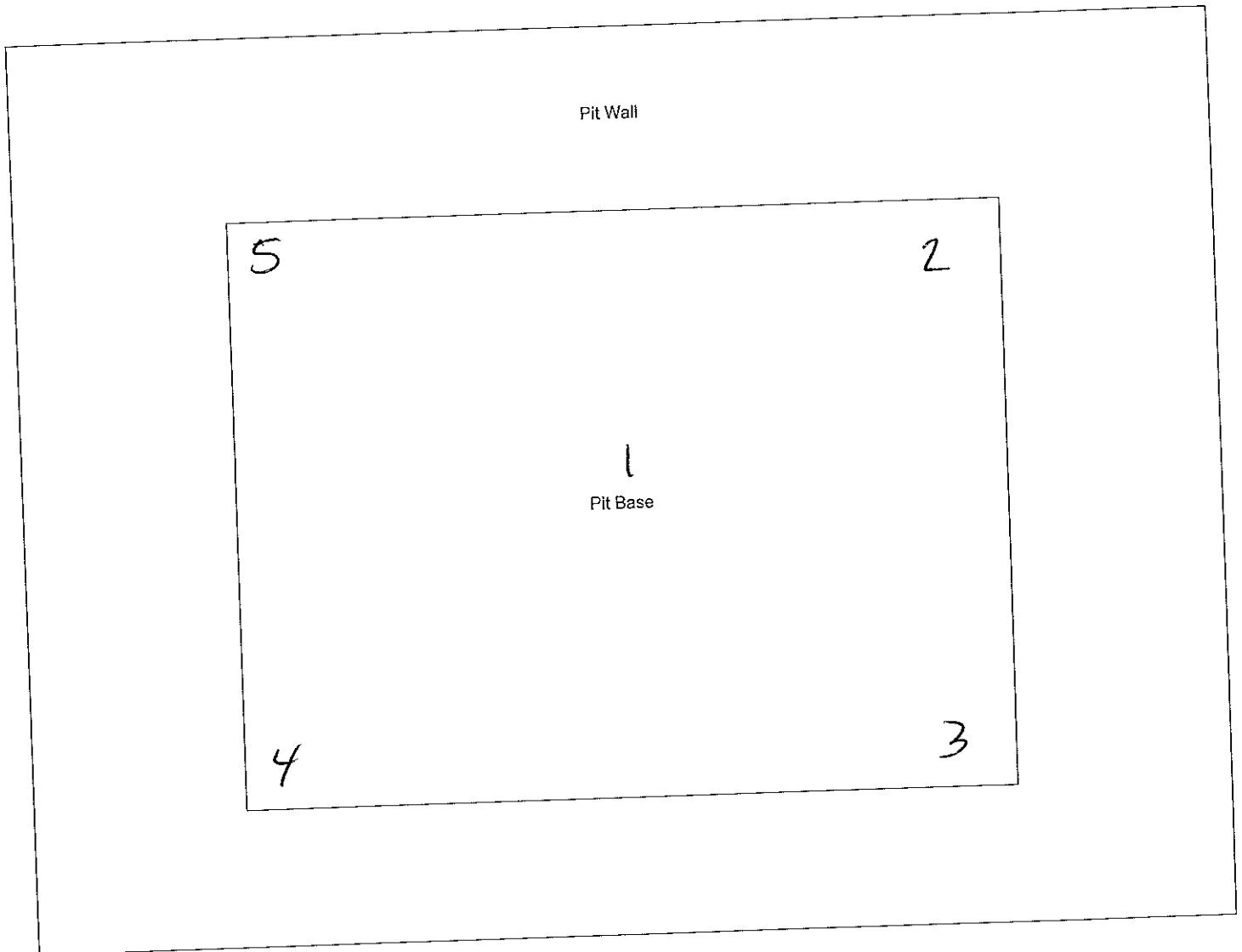
Location: GOV 1-3

Date: 8/6/10

Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: No liquid, Slight odor

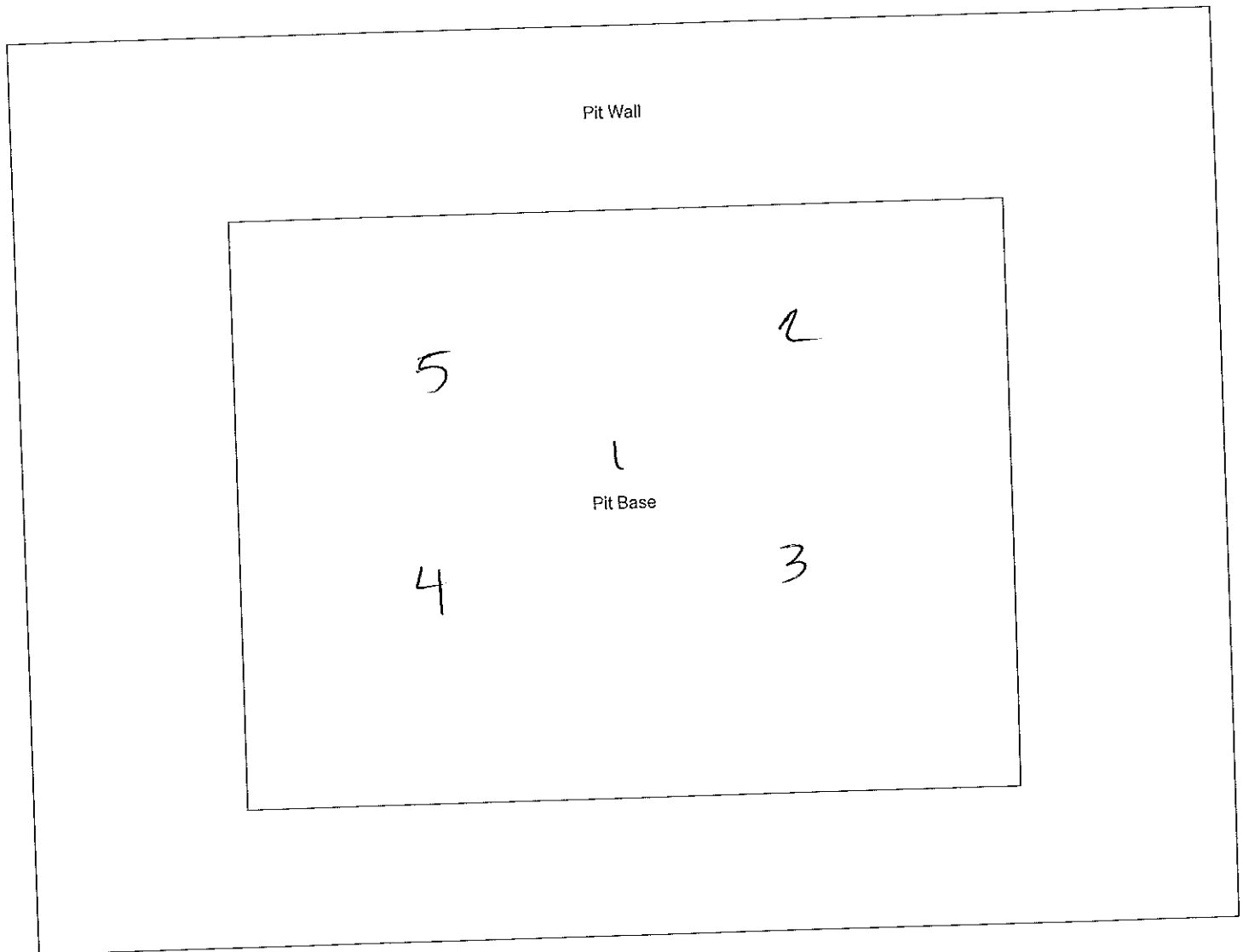
Retro Flag - 243 ppm

# Sample Location Field Map

Location: 7414 Foundation Creek  
Date: 8/6/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: Bird net covering pit, was removed for sampling. Odor (strong HC) & liquid in pit

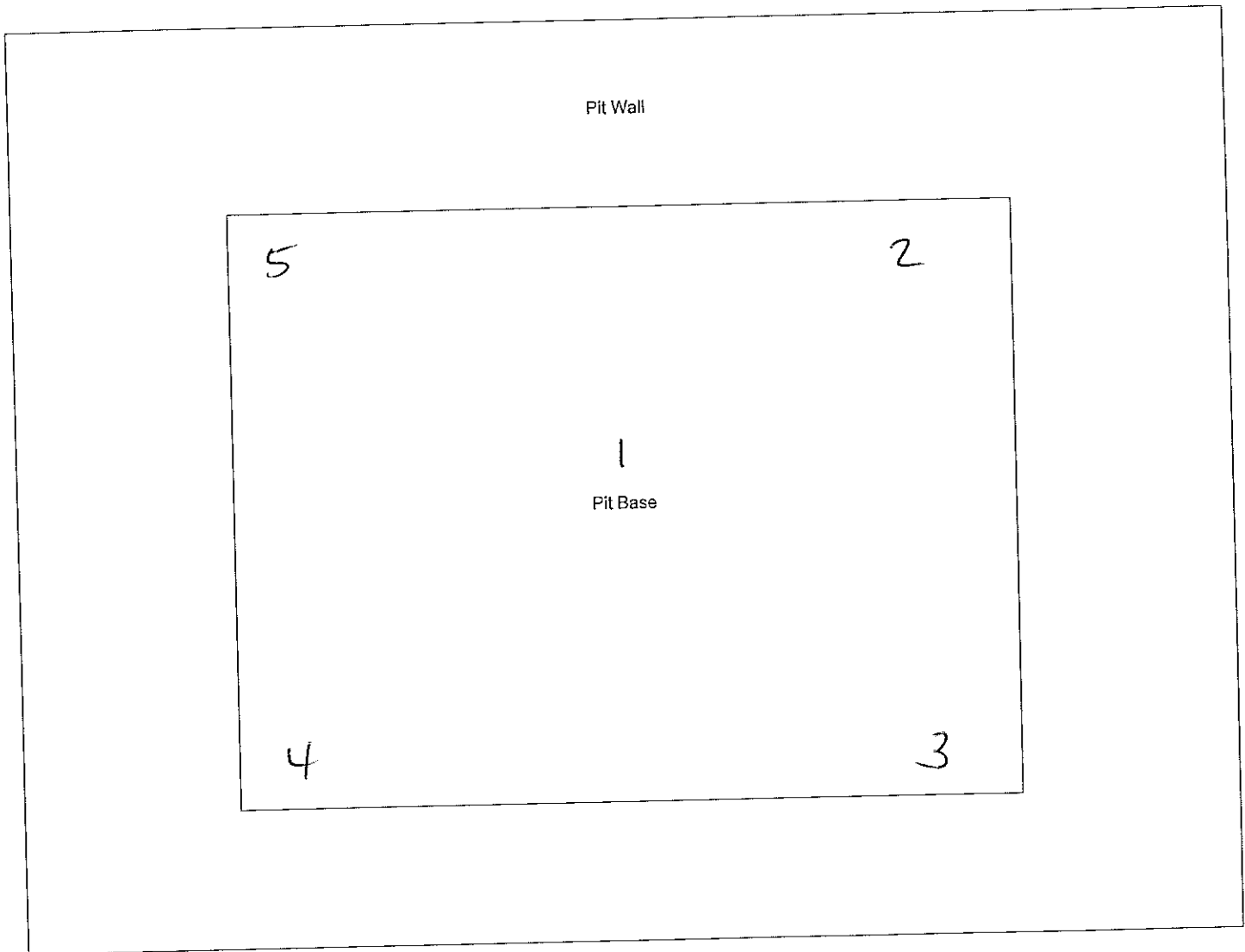
Retro Flag - 1804 ppm

# Sample Location Field Map

Location: ~~Site~~ 7302 South Douglas Creek  
Date: 8/9/10  
Sampler Name(s): Anne Opitz



Indicate the lowest point of the pit and sample locations on pit map.



Notes: liquid in pit, extremely strong HC  
odor, soil grey in color.  
location Did not have a sign

Retro Flag - 760 ppm

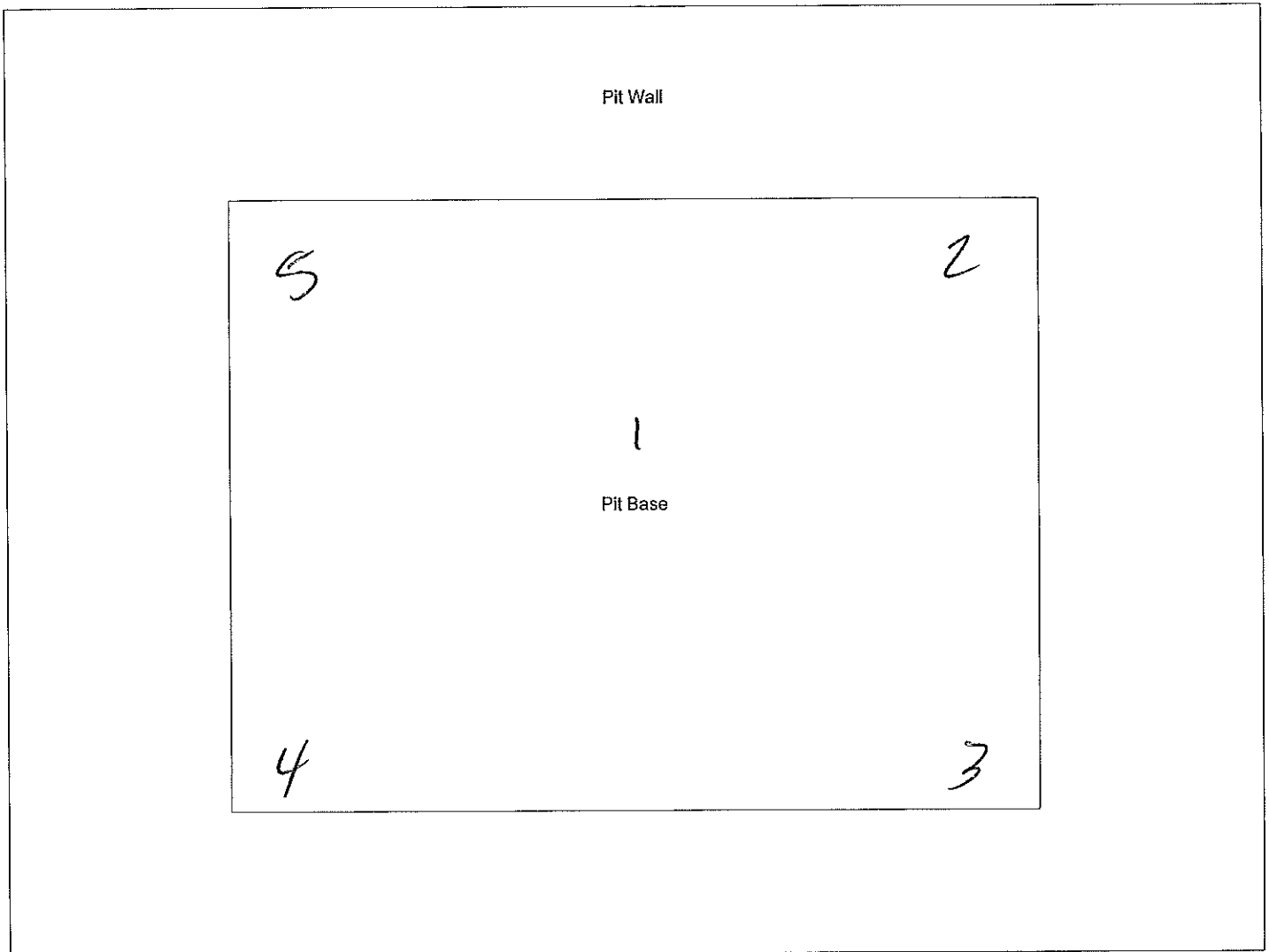


# Sample Location Field Map

Location: 7712 Douglas Pass Unit  
Date: 8/9/10  
Sampler Name(s): Anne Epite



Indicate the lowest point of the pit and sample locations on pit map.



Notes:

Pit contained liquid and slight odor of HC, liquid green/brown in color

Retro Flag - 1144 ppm