

State of Colorado
Oil and Gas Conservation Commission

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

DOCUMENT
#2221286

SUNDRY NOTICE

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

RECEIVED

SEP 12 2011

COGCC/Rifle Office

Complete the Attachment
Checklist

OP OGCC

1. OGCC Operator Number: 10150 4. Contact Name
2. Name of Operator: Black Hills Jessica Donahue
3. Address: 1515 Wynkoop St. Suite 500 Phone: (720) 210-1333
City: Denver State: CO Zip: 80202 Fax: (303) 566-3344
5. API Number 05- 077-08554 OGCC Facility ID Number 112389 *WOC ID 31257*
6. Well/Facility Name: HSC 22-1DK 7. Well/Facility Number
8. Location (Qtr/Qtr, Sec, Twp, Rng, Meridian): NENE Sect. 22, T9S R97W, 6th PM
9. County: Mesa (077) 10. Field Name: Shire Gulch
11. Federal, Indian or State Lease Number: COC014473

Survey Plat	
Directional Survey	
Surface Eqpm Diagram	
Technical Info Page	✓
Other	

General Notice

☐ CHANGE OF LOCATION: **Attach New Survey Plat** (a change of surface qtr/qtr is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines:

Change of Surface Footage to Exterior Section Lines:

Change of Bottomhole Footage from Exterior Section Lines:

Change of Bottomhole Footage to Exterior Section Lines:

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer

Latitude

Distance to nearest property line

Distance to nearest bldg, public rd, utility or RR

Longitude

Distance to nearest lease line

Is location in a High Density Area (rule 603b)?

Yes/No

Ground Elevation

Distance to nearest well same formation

Surface owner consultation date:

attach directional survey

GPS DATA:

Date of Measurement PDOP Reading Instrument Operator's Name

☐ CHANGE SPACING UNIT

Formation Formation Code Spacing order number Unit Acreage Unit configuration

☐ Remove from surface bond

Signed surface use agreement attached

☐ CHANGE OF OPERATOR (prior to drilling):

Effective Date:

Plugging Bond: ☐ Blanket ☐ Individual☐ CHANGE WELL NAME

NUMBER

From:

To:

Effective Date:

☐ ABANDONED LOCATION:

Was location ever built?

☐ Yes☐ No

Is site ready for inspection?

☐ Yes☐ No

Date Ready for Inspection:

☐ NOTICE OF CONTINUED SHUT IN STATUS

Date well shut in or temporarily abandoned:

Has Production Equipment been removed from site?

☐ Yes☐ No

MIT required if shut in longer than two years. Date of last MIT

☐ SPUD DATE:☐ REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)☐ SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK

*submit cbl and cement job summaries

Method used Cementing tool setting/perf depth Cement volume Cement top Cement bottom Date

☐ RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.

Final reclamation will commence on approximately

☐ Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

☐ Notice of Intent

Approximate Start Date:

☐ Report of Work Done

Date Work Completed:

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

☐ Intent to Recomplete (submit form 2)☐ Request to Vent or Flare☐ E&P Waste Disposal☐ Change Drilling Plans☐ Repair Well☐ Beneficial Reuse of E&P Waste☐ Gross Interval Changed?☐ Rule 502 variance requested☐ Status Update/Change of Remediation Plans

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 10150 API Number: 05-077-08554
2. Name of Operator: Black Hills OGCC Facility ID # 112389
3. Well/Facility Name: HSC 22-1DK Well/Facility Number: _____
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NENE Sect. 22, T9S R97W, 6th PM

RECEIVED**SEP 12 2011**

COGCC/Rifle Office

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

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

This sundry is being submitted as a request to meet the background concentration levels for arsenic at the HSC 22-1DK well pad relative to production pit closure at the subject facility in accordance with footnote 1 to the COGCC table 910-1.

The request is based on the analytical results below for two pigging pits on location (see attached analytical):

One (1) grab sample was collected from location within the pit footprint at depths of approximately 3' to 3.6' below pad grade to ascertain the arsenic concentrations of the facility. The results are as follows:

Pit #2 Confirmation - 3.1 mg/kg

Average concentration - 3.1 mg/kg

Three (3) grab samples were collected from nearby non-impacted, native soil from surface to 6" below to establish the background arsenic concentrations. The results are as follows:

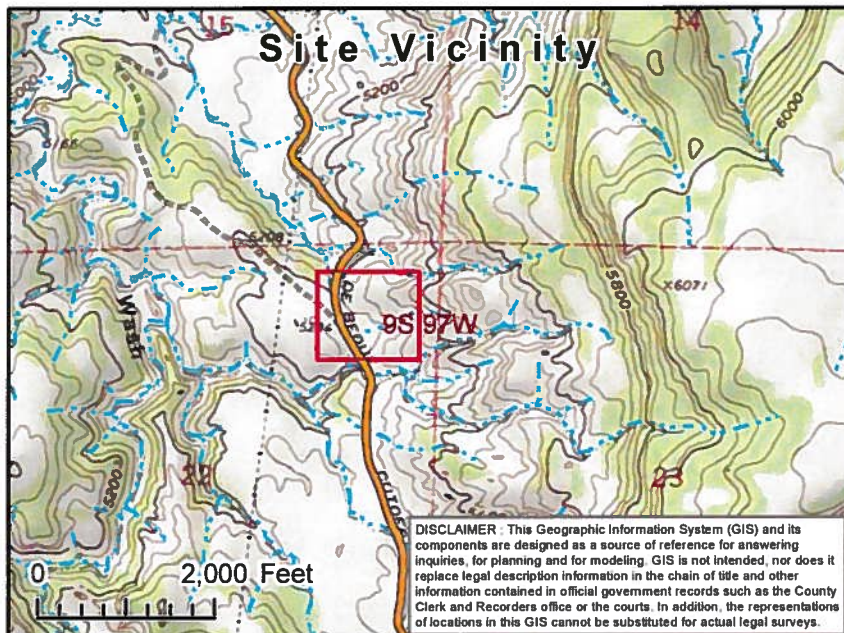
BKGD 1 - 1.7 mg/kg

BKGD 2 - 2.3 mg/kg

BKGD 3 - 1.3 mg/kg

Average concentration - 1.76 mg/kg

Black Hills is requesting this approval in order to proceed with closure and reclamation of the subject pigging pit on the HSC 22-1DK well pad.



Location Map

Location: HSC 22-1DK (Fed Alta 22-1)
Black Hill's Exploration and Production

Legend

GPS Features

Background Sample Location

Pit

PLSS

Township

Section

Roads

Hydrographic Features

Perennial Stream

Intermittent Stream

Ditch/Canal



0 62.5 125 250 Feet





15-Apr-2011

Kris Rowe
HRL Compliance Solutions
744 Horizon Ct. Suite 140
Grand Junction, CO 81506

Re: **Fed Alta 22-1 Pit Closure 4/5/11**

Work Order: **1104136**

Dear Kris,

ALS Environmental received 5 samples on 06-Apr-2011 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental 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 Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 34.

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



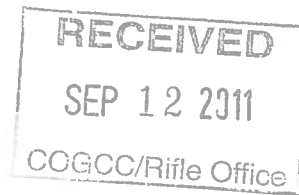
ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental A small icon of the ALS Environmental logo, consisting of a blue triangle with a yellow flame-like shape inside.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



ALS Group USA, Corp

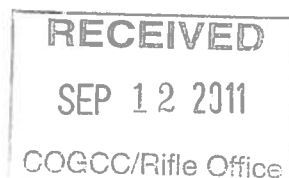
Date: 15-Apr-11

Client: HRL Compliance Solutions
Project: Fed Alta 22-1 Pit Closure 4/5/11
Work Order: 1104136

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>
1104136-01	Pit #1 Confirmation	Soil		4/5/2011 11:00	4/6/2011 09:30	<input type="checkbox"/>
1104136-02	Pit #2 Confirmation	Soil		4/5/2011 11:30	4/6/2011 09:30	<input type="checkbox"/>
1104136-03	BKGD 1	Soil		4/5/2011 12:00	4/6/2011 09:30	<input type="checkbox"/>
1104136-04	BKGD 2	Soil		4/5/2011 12:15	4/6/2011 09:30	<input type="checkbox"/>
1104136-05	BKGD 3	Soil		4/5/2011 12:20	4/6/2011 09:30	<input type="checkbox"/>

ALS Group USA, Corp



Date: 15-Apr-11

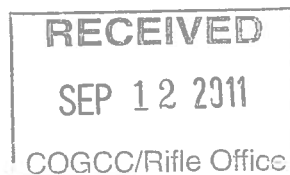
Client: HRL Compliance Solutions
Project: Fed Alta 22-1 Pit Closure 4/5/11
Work Order: 1104136

Case Narrative

Batch 32690 MS/MSD data for Metals is not related to this project's samples.

Batch 32696 LCS recoveries for Anthracene and Chrysene were below control limits causing the RPD to be above control limits. The LCSD recoveries met quality control criteria. Sample 1104136-01B was run at a dilution due to high DRO in the sample.

ALS Group USA, Corp



Date: 15-Apr-11

Client: HRL Compliance Solutions
Project: Fed Alta 22-1 Pit Closure 4/5/11
WorkOrder: 1104136

QUALIFIERS, ACRONYMS, UNITS

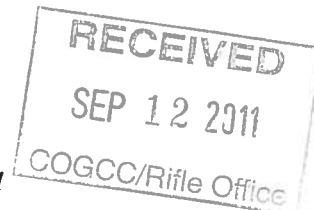
<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
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

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

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry as noted	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
s.u.	Standard Units

ALS Group USA, Corp

Date: 15-Apr-11

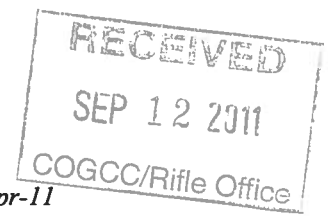


Client: HRL Compliance Solutions
Project: Fed Alta 22-1 Pit Closure 4/5/11
Sample ID: BKGD 1
Collection Date: 4/5/2011 12:00 PM

Work Order: 1104136
Lab ID: 1104136-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS						
Arsenic	1.7		SW6020A 0.98	mg/Kg-dry	Prep Date: 4/7/2011 2	Analyst: CES 4/8/2011 04:55 PM
SUBCONTRACTED ANALYSES						
Subcontracted Analyses	Rcvd 4/14/11		SUBCONTRACT	as noted	1	Analyst: A&LGL 4/14/2011
MOISTURE						
Moisture	15		A2540 G 0.010	% of sample	1	Analyst: KV 4/6/2011 01:44 PM
PH						
pH	9.52		SW9045D	s.u.	1	Analyst: KV 4/6/2011 07:45 AM

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



ALS Group USA, Corp

Date: 15-Apr-11

Client: HRL Compliance Solutions

Project: Fed Alta 22-1 Pit Closure 4/5/11

Sample ID: BKGD 2

Collection Date: 4/5/2011 12:15 PM

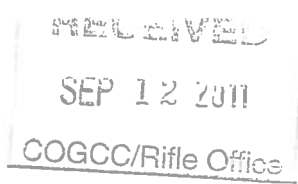
Work Order: 1104136

Lab ID: 1104136-04

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep Date: 4/7/2011	Analyst: CES
Arsenic	2.3		0.92	mg/Kg-dry	2	4/8/2011 05:01 PM
MOISTURE			A2540 G			Analyst: KV
Moisture	12		0.010	% of sample	1	4/6/2011 01:44 PM

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



ALS Group USA, Corp

Date: 15-Apr-11

Client: HRL Compliance Solutions

Project: Fed Alta 22-1 Pit Closure 4/5/11

Sample ID: BKGD 3

Collection Date: 4/5/2011 12:20 PM

Work Order: 1104136

Lab ID: 1104136-05

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep Date: 4/7/2011	Analyst: CES
Arsenic	1.3		0.92	mg/Kg-dry	2	4/8/2011 05:07 PM
MOISTURE			A2540 G			Analyst: KV
Moisture	16		0.010	% of sample	1	4/6/2011 01:44 PM

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

Report Number: F11098-0214
Account Number: 91000

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4413 • Phone 260-483-4759 • Fax 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com



QUALITY ANALYSES FOR INFORMED DECISIONS

TO: ALS LABORATORY GROUP
3352 128TH AVE
HOLLAND, MI 49424-9263

RE: 1104136 PROJECT

DATE RECEIVED: 04/08/2011
DATE REPORTED: 04/14/2011
PAGE: 1
P.O. NUMBER: 20-122009952

ATTN: ANN PRESTON

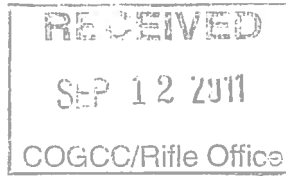
REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
78265	01C	Sat'd Paste Extraction with DIW Conductivity (ECe) Calcium (Sat'd Paste) Magnesium (Sat'd Paste) Sodium (Sat'd Paste) Sodium Adsorption Ratio	1 1.10 7 4 766 57.0	mmho/cm ppm ppm ppm -	USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60
78266	02C	Sat'd Paste Extraction with DIW Conductivity (ECe) Calcium (Sat'd Paste) Magnesium (Sat'd Paste) Sodium (Sat'd Paste) Sodium Adsorption Ratio	1 0.40 30 6 226 9.6	mmho/cm ppm ppm ppm -	USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60
78270	03B	Sat'd Paste Extraction with DIW Conductivity (ECe) Calcium (Sat'd Paste) Magnesium (Sat'd Paste) Sodium (Sat'd Paste) Sodium Adsorption Ratio	1 0.33 7 2 281 24.0	mmho/cm ppm ppm ppm -	USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60 USDA Handbook 60

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ALS Group USA, Corp

Client: HRL Compliance Solutions
Work Order: 1104136
Project: Fed Alta 22-1 Pit Closure 4/5/11



Date: 15-Apr-11

QC BATCH REPORT

Batch ID: **32697** Instrument ID **GC8** Method: **SW8015M**

MBLK	Sample ID: DBLKS1-32697-32697				Units: mg/Kg		Analysis Date: 4/8/2011 03:13 PM			
Client ID:	Run ID: GC8_110408A				SeqNo: 1594890		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	2.148	0	2	0	107	39-115	0			

LCS	Sample ID: DLCSS1-32697-32697				Units: mg/Kg		Analysis Date: 4/8/2011 01:58 PM			
Client ID:	Run ID: GC8_110408A				SeqNo: 1594888		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	154.4	5.0	200	0	77.2	60-130	0			
Surr: 4-Terphenyl-d14	1.634	0	2	0	81.7	39-115	0			

LCSD	Sample ID: DLCSDS1-32697-32697				Units: mg/Kg		Analysis Date: 4/8/2011 01:58 PM			
Client ID:	Run ID: GC8_110408A				SeqNo: 1594902		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	164.5	5.0	200	0	82.3	60-130	154.4	6.34	30	
Surr: 4-Terphenyl-d14	1.755	0	2	0	87.7	39-115	1.634	7.1	30	

MS	Sample ID: 1104122-05A MS				Units: mg/Kg		Analysis Date: 4/8/2011 02:24 PM			
Client ID:	Run ID: GC8_110408A				SeqNo: 1594889		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	316.5	8.2	326.3	0	97	60-130	0			
Surr: 4-Terphenyl-d14	3.145	0	3.263	0	96.4	39-115	0			

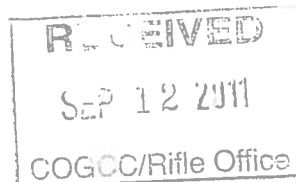
MSD	Sample ID: 1104122-05A MSD				Units: mg/Kg		Analysis Date: 4/8/2011 02:24 PM			
Client ID:	Run ID: GC8_110408A				SeqNo: 1594903		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	252.7	8.0	318.4	0	79.4	60-130	316.5	22.4	30	
Surr: 4-Terphenyl-d14	2.92	0	3.184	0	91.7	39-115	3.145	7.42	30	

The following samples were analyzed in this batch:

1104136-01B 1104136-02B

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

Client: HRL Compliance Solutions
Work Order: 1104136
Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: **R88864** Instrument ID **GC9** Method: **SW8015**

MBLK	Sample ID: MBLK-R88864-R88864				Units: µg/L		Analysis Date: 4/9/2011 12:07 PM			
Client ID:	Run ID: GC9_110409A				SeqNo: 1596519		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
Surr: Toluene-d8	97.49	0	100	0	97.5	70-130	0			

LCS	Sample ID: LCS-R88864-R88864				Units: µg/L		Analysis Date: 4/9/2011 10:50 AM			
Client ID:	Run ID: GC9_110409A				SeqNo: 1596517		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	26750	200	25000	0	107	70-130	0			
Surr: Toluene-d8	105.8	0	100	0	106	70-130	0			

LCSD	Sample ID: LCSD-R88864-R88864				Units: µg/L		Analysis Date: 4/9/2011 11:16 AM			
Client ID:	Run ID: GC9_110409A				SeqNo: 1596518		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	26530	200	25000	0	106	70-130	26750	0.826	30	
Surr: Toluene-d8	99.27	0	100	0	99.3	70-130	105.8	6.37	30	

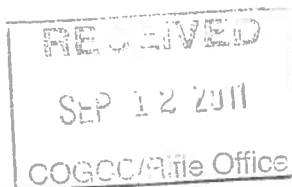
MS	Sample ID: 1104118-05C MS				Units: µg/L		Analysis Date: 4/9/2011 09:05 PM			
Client ID:	Run ID: GC9_110409A				SeqNo: 1596534		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	24020	200	25000	0	96.1	70-130	0			
Surr: Toluene-d8	91.52	0	100	0	91.5	70-130	0			

MS	Sample ID: 1104153-05B MS				Units: µg/Kg		Analysis Date: 4/9/2011 09:31 PM			
Client ID:	Run ID: GC9_110409A				SeqNo: 1596563		Prep Date:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	2512000	5,000	2500000	0	100	70-130	0			
Surr: Toluene-d8	9137	0	10000	0	91.4	50-150	0			

MSD	Sample ID: 1104118-05C MSD				Units: µg/L		Analysis Date: 4/9/2011 09:57 PM			
Client ID:	Run ID: GC9_110409A				SeqNo: 1596536		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	22890	200	25000	0	91.5	70-130	24020	4.81	30	
Surr: Toluene-d8	95.54	0	100	0	95.5	70-130	91.52	4.3	30	

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

Client: HRL Compliance Solutions
Work Order: 1104136
Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

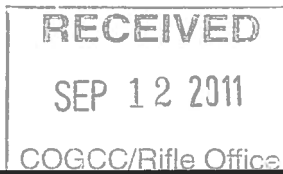
Batch ID: **R88864** Instrument ID **GC9** Method: **SW8015**

MSD	Sample ID: 1104153-05B MSD			Units: µg/Kg			Analysis Date: 4/9/2011 10:22 PM			
Client ID:	Run ID: GC9_110409A			SeqNo: 1596564			Prep Date:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	2380000	5,000	2500000	0	95.2	70-130	2512000	5.43	30	
Surr: Toluene-d8	8826	0	10000	0	88.3	50-150	9137	3.46	30	

The following samples were analyzed in this batch:

1104136-01A 1104136-02A

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: 32719 Instrument ID HG1 Method: SW7471

MBLK	Sample ID: MBLK-32719-32719				Units: mg/Kg		Analysis Date: 4/8/2011 02:40 PM			
Client ID:	Run ID: HG1_110408A				SeqNo: 1594718		Prep Date: 4/8/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

LCS	Sample ID: LCS-32719-32719				Units: mg/Kg		Analysis Date: 4/8/2011 02:42 PM			
Client ID:	Run ID: HG1_110408A				SeqNo: 1594719		Prep Date: 4/8/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1787	0.020	0.1665	0	107	80-120	0			

LCSD	Sample ID: LCSD-32719-32719				Units: mg/Kg		Analysis Date: 4/8/2011 02:44 PM			
Client ID:	Run ID: HG1_110408A				SeqNo: 1594720		Prep Date: 4/8/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1867	0.020	0.1665	0	112	80-120	0.1787	4.38	20	

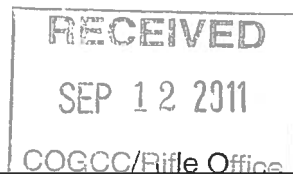
MS	Sample ID: 1104139-04AMS				Units: mg/Kg		Analysis Date: 4/8/2011 04:32 PM			
Client ID:	Run ID: HG1_110408B				SeqNo: 1594817		Prep Date: 4/8/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1985	0.019	0.1583	0.01659	115	75-125	0			

MSD	Sample ID: 1104139-04AMSD				Units: mg/Kg		Analysis Date: 4/8/2011 04:34 PM			
Client ID:	Run ID: HG1_110408B				SeqNo: 1594818		Prep Date: 4/8/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.2057	0.019	0.1609	0.01659	118	75-125	0.1985	3.57	35	

The following samples were analyzed in this batch:

1104136-01B 1104136-02B

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: 32690 Instrument ID ICPMS2 Method: SW6020A

MBLK	Sample ID: MBLK-32690-32690			Units: mg/Kg			Analysis Date: 4/7/2011 06:34 PM			
Client ID:	Run ID: ICPMS2_110407A			SeqNo: 1594137			Prep Date: 4/6/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	0.00565	0.25								J
Copper	0.04572	0.25								J
Lead	0.001092	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.09835	0.50								J

LCS	Sample ID: LCS-32690-32690			Units: mg/Kg			Analysis Date: 4/7/2011 06:38 PM			
Client ID:	Run ID: ICPMS2_110407A			SeqNo: 1594138			Prep Date: 4/6/2011		DF: 2	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.603	0.50	5	0	92.1	80-120	0			
Barium	4.719	0.50	5	0	94.4	80-120	0			
Cadmium	4.68	0.20	5	0	93.6	80-120	0			
Chromium	4.843	0.50	5	0	96.9	80-120	0			
Copper	4.737	0.50	5	0	94.7	80-120	0			
Lead	4.727	0.50	5	0	94.5	80-120	0			
Nickel	4.678	0.50	5	0	93.6	80-120	0			
Selenium	4.555	0.50	5	0	91.1	80-120	0			
Silver	4.864	0.50	5	0	97.3	80-120	0			
Zinc	4.697	1.0	5	0	93.9	80-120	0			

LCSD	Sample ID: LCSD-32690-32690			Units: mg/Kg			Analysis Date: 4/7/2011 06:43 PM			
Client ID:	Run ID: ICPMS2_110407A			SeqNo: 1594139			Prep Date: 4/6/2011		DF: 2	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.679	0.50	5	0	93.6	80-120	4.603	1.64	20	
Barium	4.736	0.50	5	0	94.7	80-120	4.719	0.36	20	
Cadmium	4.715	0.20	5	0	94.3	80-120	4.68	0.745	20	
Chromium	4.888	0.50	5	0	97.8	80-120	4.843	0.925	20	
Copper	4.743	0.50	5	0	94.9	80-120	4.737	0.127	20	
Lead	4.735	0.50	5	0	94.7	80-120	4.727	0.169	20	
Nickel	4.672	0.50	5	0	93.4	80-120	4.678	0.128	20	
Selenium	4.57	0.50	5	0	91.4	80-120	4.555	0.329	20	
Silver	4.899	0.50	5	0	98	80-120	4.864	0.717	20	
Zinc	4.694	1.0	5	0	93.9	80-120	4.697	0.0639	20	

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

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: 32690 Instrument ID ICPMS2 Method: SW6020A

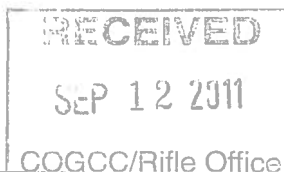
MS		Sample ID: 1104122-05AMS		Units: mg/Kg		Analysis Date: 4/7/2011 07:13 PM				
Client ID:		Run ID: ICPMS2_110407A		SeqNo: 1594145		Prep Date: 4/6/2011		DF: 4		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.97	1.8	8.929	4.885	102	80-120	0			
Barium	91.82	1.8	8.929	90.08	19.5	80-120	0			SO
Cadmium	8.218	0.71	8.929	0.03399	91.7	80-120	0			
Chromium	15.71	1.8	8.929	8.537	80.3	80-120	0			
Copper	16.7	1.8	8.929	15.25	16.2	80-120	0			S
Lead	15.19	1.8	8.929	6.339	99.2	80-120	0			
Nickel	26.23	1.8	8.929	8.968	193	80-120	0			S
Selenium	8.279	1.8	8.929	0.2604	89.8	80-120	0			
Silver	7.761	1.8	8.929	-0.143	88.5	80-120	0			
Zinc	24.09	3.6	8.929	14.57	107	80-120	0			

MSD		Sample ID: 1104122-05AMSD		Units: mg/Kg		Analysis Date: 4/7/2011 07:18 PM				
Client ID:		Run ID: ICPMS2_110407A		SeqNo: 1594146		Prep Date: 4/6/2011		DF: 4		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.98	1.7	8.569	4.885	106	80-120	13.97	0.0706	25	
Barium	112.9	1.7	8.569	90.08	266	80-120	91.82	20.6	25	SO
Cadmium	7.962	0.69	8.569	0.03399	92.5	80-120	8.218	3.16	25	
Chromium	14.74	1.7	8.569	8.537	72.4	80-120	15.71	6.36	25	S
Copper	20.05	1.7	8.569	15.25	56	80-120	16.7	18.2	25	S
Lead	14.23	1.7	8.569	6.339	92.1	80-120	15.19	6.54	25	
Nickel	16.56	1.7	8.569	8.968	88.5	80-120	26.23	45.2	25	R
Selenium	7.637	1.7	8.569	0.2604	86.1	80-120	8.279	8.07	25	
Silver	7.578	1.7	8.569	-0.143	90.1	80-120	7.761	2.38	25	
Zinc	24.58	3.4	8.569	14.57	117	80-120	24.09	2.01	25	

The following samples were analyzed in this batch:

1104136-01B 1104136-02B

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: 32707 Instrument ID ICPMS1 Method: SW6020A

MBLK	Sample ID: MBLK-32707-32707					Units: mg/Kg		Analysis Date: 4/8/2011 02:56 PM		
Client ID:	Run ID: ICPMS1_110408A				SeqNo: 1595610		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS	Sample ID: LCS-32707-32707					Units: mg/Kg		Analysis Date: 4/8/2011 03:02 PM		
Client ID:	Run ID: ICPMS1_110408A				SeqNo: 1595611		Prep Date: 4/7/2011		DF: 2	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.044	0.50	5	0	80.9	80-120	0			

LCSD	Sample ID: LCSD-32707-32707					Units: mg/Kg		Analysis Date: 4/8/2011 03:08 PM		
Client ID:	Run ID: ICPMS1_110408A				SeqNo: 1595612		Prep Date: 4/7/2011		DF: 2	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.293	0.50	5	0	85.9	80-120	4.044	5.97	20	

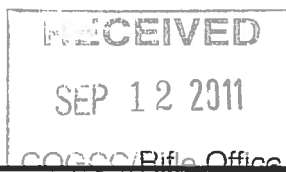
MS	Sample ID: 1104153-05AMS					Units: mg/Kg		Analysis Date: 4/8/2011 03:49 PM		
Client ID:	Run ID: ICPMS1_110408A				SeqNo: 1595619		Prep Date: 4/7/2011		DF: 4	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.26	1.7	8.621	5.735	87.3	80-120	0			

MSD	Sample ID: 1104153-05AMSD					Units: mg/Kg		Analysis Date: 4/8/2011 04:20 PM		
Client ID:	Run ID: ICPMS1_110408A				SeqNo: 1595622		Prep Date: 4/7/2011		DF: 4	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.9	1.7	8.547	5.735	83.8	80-120	13.26	2.75	25	

The following samples were analyzed in this batch: 1104136-03A 1104136-04A 1104136-05A

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

Client: HRL Compliance Solutions
Work Order: 1104136
Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

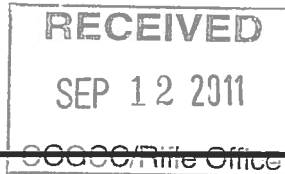
Batch ID: **32696** Instrument ID **SVMS4** Method: **SW8270**

MBLK Sample ID: **SBLKS1-32696-32696** Units: **µg/Kg** Analysis Date: **4/8/2011 02:27 PM**
 Client ID: Run ID: **SVMS4_110408A** SeqNo: **1594628** Prep Date: **4/7/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
Surr: 2,4,6-Tribromophenol	1139	0	1667	0	68.4	34-140	0			
Surr: 2-Fluorobiphenyl	951	0	1667	0	57.1	12-100	0			
Surr: 2-Fluorophenol	1181	0	1667	0	70.8	33-117	0			
Surr: 4-Terphenyl-d14	1434	0	1667	0	86	25-137	0			
Surr: Nitrobenzene-d5	1185	0	1667	0	71.1	37-107	0			
Surr: Phenol-d6	1241	0	1667	0	74.5	40-106	0			

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

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



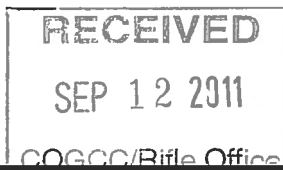
QC BATCH REPORT

Batch ID: 32696 Instrument ID SVMS4 Method: SW8270

LCS		Sample ID: SLCSS1-32696-32696			Units: µg/Kg		Analysis Date: 4/8/2011 11:48 AM			
Client ID:		Run ID: SVMS4_110408A			SeqNo: 1594623		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	601	30	1333	0	45.1	45-110	0			
Anthracene	687	30	1333	0	51.5	55-105	0			S
Benzo(a)anthracene	758.7	30	1333	0	56.9	50-110	0			
Benzo(a)pyrene	796.7	30	1333	0	59.8	50-110	0			
Benzo(b)fluoranthene	758.7	30	1333	0	56.9	45-115	0			
Benzo(g,h,i)perylene	792	30	1333	0	59.4	40-125	0			
Benzo(k)fluoranthene	1011	30	1333	0	75.8	45-115	0			
Chrysene	675.7	30	1333	0	50.7	55-110	0			S
Dibenzo(a,h)anthracene	830.7	30	1333	0	62.3	40-125	0			
Fluoranthene	767	30	1333	0	57.5	55-115	0			
Fluorene	704.7	30	1333	0	52.9	50-110	0			
Indeno(1,2,3-cd)pyrene	820	30	1333	0	61.5	40-120	0			
Naphthalene	599.3	30	1333	0	45	40-105	0			
Pyrene	734	30	1333	0	55.1	45-125	0			
Surr: 2,4,6-Tribromophenol	850	0	1667	0	51	34-140	0			
Surr: 2-Fluorobiphenyl	734	0	1667	0	44	12-100	0			
Surr: 2-Fluorophenol	836.3	0	1667	0	50.2	33-117	0			
Surr: 4-Terphenyl-d14	1033	0	1667	0	62	25-137	0			
Surr: Nitrobenzene-d5	901	0	1667	0	54.1	37-107	0			
Surr: Phenol-d6	859	0	1667	0	51.5	40-106	0			

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

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



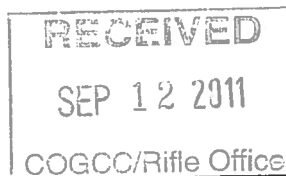
QC BATCH REPORT

Batch ID: 32696 Instrument ID SVMS4 Method: SW8270

LCSD				Sample ID: SLCSDS1-32696-32696			Units: µg/Kg		Analysis Date: 4/8/2011 12:19 PM		
Client ID:		Run ID: SVMS4_110408A			SeqNo: 1594624		Prep Date: 4/7/2011		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	961.7	30	1333	0	72.1	45-110	601	46.2	25	R	
Anthracene	1032	30	1333	0	77.4	55-105	687	40.1	25	R	
Benzo(a)anthracene	1132	30	1333	0	84.9	50-110	758.7	39.5	25	R	
Benzo(a)pyrene	1204	30	1333	0	90.3	50-110	796.7	40.7	25	R	
Benzo(b)fluoranthene	1284	30	1333	0	96.3	45-115	758.7	51.5	25	R	
Benzo(g,h,i)perylene	1105	30	1333	0	82.9	40-125	792	33	25	R	
Benzo(k)fluoranthene	1373	30	1333	0	103	45-115	1011	30.4	25	R	
Chrysene	1040	30	1333	0	78	55-110	675.7	42.5	25	R	
Dibenzo(a,h)anthracene	1249	30	1333	0	93.7	40-125	830.7	40.3	25	R	
Fluoranthene	1127	30	1333	0	84.5	55-115	767	38	25	R	
Fluorene	1158	30	1333	0	86.8	50-110	704.7	48.6	25	R	
Indeno(1,2,3-cd)pyrene	1212	30	1333	0	90.9	40-120	820	38.6	25	R	
Naphthalene	947.3	30	1333	0	71.1	40-105	599.3	45	25	R	
Pyrene	1077	30	1333	0	80.8	45-125	734	37.9	25	R	
Surr: 2,4,6-Tribromophenol	1302	0	1667	0	78.1	34-140	850	42	40	R	
Surr: 2-Fluorobiphenyl	1188	0	1667	0	71.3	12-100	734	47.3	40	R	
Surr: 2-Fluorophenol	1325	0	1667	0	79.5	33-117	836.3	45.2	40	R	
Surr: 4-Terphenyl-d14	1533	0	1667	0	92	25-137	1033	39	40		
Surr: Nitrobenzene-d5	1466	0	1667	0	88	37-107	901	47.7	40	R	
Surr: Phenol-d6	1330	0	1667	0	79.8	40-106	859	43	40	R	

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

Client: HRL Compliance Solutions
Work Order: 1104136
Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

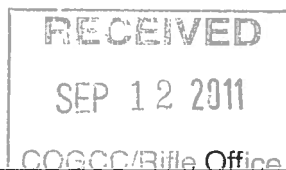
Batch ID: **32696** Instrument ID **SVMS4** Method: **SW8270**

MS Sample ID: **1104122-05A MS** Units: **µg/Kg** Analysis Date: **4/8/2011 12:51 PM**
 Client ID: Run ID: **SVMS4_110408A** SeqNo: **1594625** Prep Date: **4/7/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1756	58	2561	0	68.6	45-110	0			
Anthracene	1945	58	2561	0	76	55-105	0			
Benzo(a)anthracene	2120	58	2561	0	82.8	50-110	0			
Benzo(a)pyrene	2300	58	2561	0	89.8	50-110	0			
Benzo(b)fluoranthene	2489	58	2561	0	97.2	45-115	0			
Benzo(g,h,i)perylene	2248	58	2561	0	87.8	40-125	0			
Benzo(k)fluoranthene	2582	58	2561	0	101	45-115	0			
Chrysene	1946	58	2561	0	76	55-110	0			
Dibenzo(a,h)anthracene	2431	58	2561	0	94.9	40-125	0			
Fluoranthene	2123	58	2561	8.917	82.6	55-115	0			
Fluorene	2130	58	2561	0	83.2	50-110	0			
Indeno(1,2,3-cd)pyrene	2381	58	2561	0	93	40-120	0			
Naphthalene	1691	58	2561	0	66	40-105	0			
Pyrene	2037	58	2561	0	79.6	45-125	0			
Surr: 2,4,6-Tribromophenol	2447	0	3201	0	76.4	34-140	0			
Surr: 2-Fluorobiphenyl	2090	0	3201	0	65.3	12-100	0			
Surr: 2-Fluorophenol	2298	0	3201	0	71.8	33-117	0			
Surr: 4-Terphenyl-d14	2888	0	3201	0	90.2	25-137	0			
Surr: Nitrobenzene-d5	2576	0	3201	0	80.5	37-107	0			
Surr: Phenol-d6	2364	0	3201	0	73.8	40-106	0			

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

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

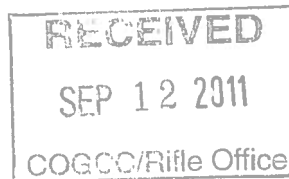
Batch ID: 32696 Instrument ID SVMS4 Method: SW8270

MSD		Sample ID: 1104122-05A MSD			Units: µg/Kg		Analysis Date: 4/8/2011 01:23 PM			
Client ID:		Run ID: SVMS4_110408A			SeqNo: 1594626		Prep Date: 4/7/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1684	56	2502	0	67.3	45-110	1756	4.18	30	
Anthracene	1917	56	2502	0	76.6	55-105	1945	1.46	30	
Benzo(a)anthracene	2071	56	2502	0	82.8	50-110	2120	2.31	30	
Benzo(a)pyrene	2248	56	2502	0	89.9	50-110	2300	2.31	30	
Benzo(b)fluoranthene	2342	56	2502	0	93.6	45-115	2489	6.09	30	
Benzo(g,h,i)perylene	2217	56	2502	0	88.6	40-125	2248	1.41	30	
Benzo(k)fluoranthene	2618	56	2502	0	105	45-115	2582	1.38	30	
Chrysene	1929	56	2502	0	77.1	55-110	1946	0.872	30	
Dibenzo(a,h)anthracene	2393	56	2502	0	95.7	40-125	2431	1.58	30	
Fluoranthene	2088	56	2502	8.917	83.1	55-115	2123	1.65	30	
Fluorene	2099	56	2502	0	83.9	50-110	2130	1.47	30	
Indeno(1,2,3-cd)pyrene	2337	56	2502	0	93.4	40-120	2381	1.86	30	
Naphthalene	1592	56	2502	0	63.7	40-105	1691	6	30	
Pyrene	1975	56	2502	0	79	45-125	2037	3.1	30	
Surr: 2,4,6-Tribromophenol	2447	0	3127	0	78.3	34-140	2447	0.0118	40	
Surr: 2-Fluorobiphenyl	1974	0	3127	0	63.1	12-100	2090	5.67	40	
Surr: 2-Fluorophenol	2260	0	3127	0	72.3	33-117	2298	1.65	40	
Surr: 4-Terphenyl-d14	2840	0	3127	0	90.8	25-137	2888	1.68	40	
Surr: Nitrobenzene-d5	2455	0	3127	0	78.5	37-107	2576	4.81	40	
Surr: Phenol-d6	2297	0	3127	0	73.4	40-106	2364	2.88	40	

The following samples were analyzed in this batch: 1104136-01B 1104136-02B

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

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: R88809 Instrument ID VMS6 Method: SW8260

MBLK		Sample ID: VBLKW1-110409-R88809				Units: µg/L		Analysis Date: 4/9/2011 09:47 AM		
Client ID:		Run ID: VMS6_110409A				SeqNo: 1594935		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								

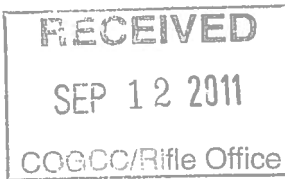
LCS		Sample ID: VLCSW1-110409-R88809				Units: µg/L		Analysis Date: 4/9/2011 08:30 AM		
Client ID:		Run ID: VMS6_110409A				SeqNo: 1594933		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.06	1.0	20	0	110	80-120	0			
Ethylbenzene	22.52	1.0	20	0	113	75-125	0			
m,p-Xylene	44.73	2.0	40	0	112	75-130	0			
o-Xylene	22.76	1.0	20	0	114	80-120	0			
Toluene	21.64	1.0	20	0	108	75-120	0			
Xylenes, Total	67.49	2.0	60	0	112	75-130	0			

LCSD		Sample ID: VLCSDW1-110409-R88809				Units: µg/L		Analysis Date: 4/9/2011 08:55 AM		
Client ID:		Run ID: VMS6_110409A				SeqNo: 1594934		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.59	1.0	20	0	113	80-120	22.06	2.37	30	
Ethylbenzene	22.96	1.0	20	0	115	75-125	22.52	1.93	30	
m,p-Xylene	45.59	2.0	40	0	114	75-130	44.73	1.9	30	
o-Xylene	23.16	1.0	20	0	116	80-120	22.76	1.74	30	
Toluene	22.16	1.0	20	0	111	75-120	21.64	2.37	30	
Xylenes, Total	68.75	2.0	60	0	115	75-130	67.49	1.85	30	

MS		Sample ID: 1104118-05C MS				Units: µg/L		Analysis Date: 4/9/2011 06:32 PM		
Client ID:		Run ID: VMS6_110409A				SeqNo: 1595011		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.23	1.0	20	0	111	80-120	0			
Ethylbenzene	22.05	1.0	20	0	110	75-125	0			
m,p-Xylene	43.67	2.0	40	0	109	75-130	0			
o-Xylene	22.36	1.0	20	0	112	80-120	0			
Toluene	21.23	1.0	20	0	106	75-120	0			
Xylenes, Total	66.03	2.0	60	0	110	75-130	0			

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

Client: HRL Compliance Solutions
Work Order: 1104136
Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

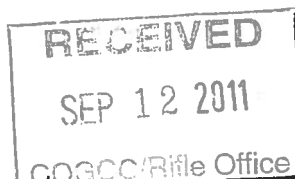
Batch ID: **R88809** Instrument ID **VMS6** Method: **SW8260**

MSD		Sample ID: 1104118-05C MSD			Units: µg/L			Analysis Date: 4/9/2011 06:59 PM		
Client ID:		Run ID: VMS6_110409A			SeqNo: 1595012			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.66	1.0	20	0	108	80-120	22.23	2.6	30	
Ethylbenzene	21.63	1.0	20	0	108	75-125	22.05	1.92	30	
m,p-Xylene	42.94	2.0	40	0	107	75-130	43.67	1.69	30	
o-Xylene	22.11	1.0	20	0	111	80-120	22.36	1.12	30	
Toluene	20.7	1.0	20	0	104	75-120	21.23	2.53	30	
Xylenes, Total	65.05	2.0	60	0	108	75-130	66.03	1.5	30	

The following samples were analyzed in this batch:

1104136-01A 1104136-02A

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: 32792 Instrument ID WETCHEM Method: SW7196A

MBLK Sample ID: **MBLK-32792-32792** Units: **mg/Kg** Analysis Date: **4/12/2011 03:30 PM**
 Client ID: Run ID: **WETCHEM_110412D** SeqNo: **1597578** Prep Date: **4/11/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.49								

LCS Sample ID: **LCS-32792-32792** Units: **mg/Kg** Analysis Date: **4/12/2011 03:30 PM**
 Client ID: Run ID: **WETCHEM_110412D** SeqNo: **1597576** Prep Date: **4/11/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.753	0.49	1.961	0	89.4	75-110	0			

LCSD Sample ID: **LCSD-32792-32792** Units: **mg/Kg** Analysis Date: **4/12/2011 03:30 PM**
 Client ID: Run ID: **WETCHEM_110412D** SeqNo: **1597577** Prep Date: **4/11/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.776	0.48	1.931	0	92	75-110	1.753	1.31	20	

MS Sample ID: **1104139-05A MS** Units: **mg/Kg** Analysis Date: **4/12/2011 03:30 PM**
 Client ID: Run ID: **WETCHEM_110412D** SeqNo: **1597570** Prep Date: **4/11/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.726	0.48	1.931	0	89.4	60-130	0			

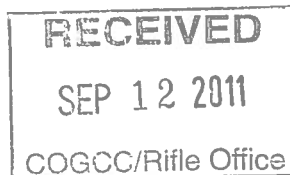
MSD Sample ID: **1104139-05A MSD** Units: **mg/Kg** Analysis Date: **4/12/2011 03:30 PM**
 Client ID: Run ID: **WETCHEM_110412D** SeqNo: **1597571** Prep Date: **4/11/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.753	0.49	1.961	0	89.4	60-130	1.726	1.56	30	

The following samples were analyzed in this batch:

1104136-01B 1104136-02B

Client: HRL Compliance Solutions
Work Order: 1104136
Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: **R88725** Instrument ID **WETCHEM** Method: **SW9045D**

DUP Sample ID: **1104136-01B DUP** Units: s.u. Analysis Date: **4/6/2011 07:45 AM**

Client ID: **Pit #1 Confirmation** Run ID: **WETCHEM_110406G** SeqNo: **1592773** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.98	0	0	0	0	0-0	9.98	0	20	

DUP Sample ID: **1104139-05A DUP** Units: s.u. Analysis Date: **4/6/2011 07:45 AM**

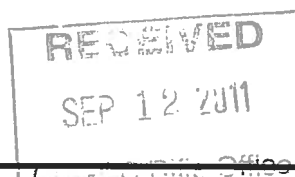
Client ID: Run ID: **WETCHEM_110406G** SeqNo: **1592781** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.06	0	0	0	0	0-0	9.06	0	20	

The following samples were analyzed in this batch:

1104136-01B	1104136-02B	1104136-03A
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Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: **R88741** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS1-110406-R88741				Units: % of sample			Analysis Date: 4/6/2011 01:29 PM		
Client ID:	Run ID: MOIST_110406A				SeqNo: 1593368			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.010								

DUP	Sample ID: 1104122-05A DUP1				Units: % of sample			Analysis Date: 4/6/2011 01:29 PM		
Client ID:	Run ID: MOIST_110406A				SeqNo: 1593349			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.1	0.010	0	0	0	0-0	3	31	20	R

DUP	Sample ID: 1104122-05A DUP2				Units: % of sample			Analysis Date: 4/6/2011 01:29 PM		
Client ID:	Run ID: MOIST_110406A				SeqNo: 1593350			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.1	0.010	0	0	0	0-0	3	31	20	R

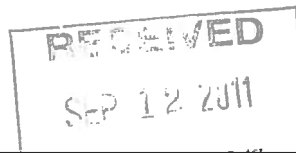
DUP	Sample ID: 1104136-01B DUP				Units: % of sample			Analysis Date: 4/6/2011 01:29 PM		
Client ID: Pit #1 Confirmation	Run ID: MOIST_110406A				SeqNo: 1593365			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	16.8	0.010	0	0	0	0-0	16.7	0.597	20	

The following samples were analyzed in this batch:

1104136-01B 1104136-02B

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

Client: HRL Compliance Solutions
 Work Order: 1104136
 Project: Fed Alta 22-1 Pit Closure 4/5/11



QC BATCH REPORT

Batch ID: R88742 Instrument ID MOIST Method: A2540 G

MBLK	Sample ID: WBLKS1-110406-R88742				Units: % of sample			Analysis Date: 4/6/2011 01:44 PM		
Client ID:	Run ID: MOIST_110406B				SeqNo: 1593405			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.010								

DUP	Sample ID: 1104136-04A DUP				Units: % of sample			Analysis Date: 4/6/2011 01:44 PM		
Client ID: BKGD 2	Run ID: MOIST_110406B				SeqNo: 1593382			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.1	0.010	0	0	0	0-0	12	8.76	20	

DUP	Sample ID: 1104139-01A DUP				Units: % of sample			Analysis Date: 4/6/2011 01:44 PM		
Client ID:	Run ID: MOIST_110406B				SeqNo: 1593388			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	6.3	0.010	0	0	0	0-0	5.8	8.26	20	

The following samples were analyzed in this batch:

1104136-03A	1104136-04A	1104136-05A
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ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1611 PH: (970) 490-1611 FX: (970) 490-1622

Chain-of-Custody

Form 202r6

PROJECT NAME Fed Alta 22-1 Pit Closure		SAMPLER KRIS ROWE		DATE 4/5/2011		WORKORDER # 1104136	
PROJECT No.	SITE ID	EDD FORMAT	TURNAROUND	By Lab or	PAGE 1	of 1	
COMPANY NAME HRL COMPLIANCE SOLUTIONS Inc.	PURCHASE ORDER	BILL TO COMPANY	910-1 Total Metals (see comments)	DISPOSAL			
SEND REPORT TO KRIS ROWE	INVOICE ATTN TO	ADDRESS	SAR / EC / PH	STD			
CITY / STATE / ZIP 744 HORIZON CT SUITE 140 GRAND JUNCTION CO 81506	CITY / STATE / ZIP	PHONE	Semi Vols - PAH				
PHONE 970-243-3271		FAX 970-243-3280	BTEX				
FAX 970-243-3280		E-MAIL KROWE@HRLCOMP.COM	TVPH				
E-MAIL KROWE@HRLCOMP.COM			TEPH				
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
61	Pit #1 Confirmation	SO	4/5/2011	11:00	2		
62	Pit #2 Confirmation	SO	4/5/2011	11:30	2		
63	BKGD 1	SO	4/5/2011	12:00	1		
64	BKGD 2	SO	4/5/2011	12:15	1		
65	BKGD 3	SO	4/5/2011	12:20	1		

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

For metals or anions, please detail analytes below.

Comments: Report Barium as total Barium and do not run Boron COC has correct sample ID nomenclature 5.62	QC PACKAGE (check below)	
	LEVEL II (Standard QC)	
	LEVEL III (Std QC + forms)	
	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 <i>[Signature]</i>	PRINTED NAME Kris Rowe	DATE 4/5/2011	TIME 17:00
RELINQUISHED BY RECEIVED BY <i>[Signature]</i>	Diane F Shaw	4/6/11	0930
RELINQUISHED BY			
RELINQUISHED BY			
RELINQUISHED BY			

RECEIVED
SEP 12 2011
DOGCC Rifle Office

**Subcontractor:**

A & L Great Lakes Agricultural Lab
3505 Conestoga Dr
Fl. Wayne, IN 46808

TEL: (260) 483-4759
FAX:
Acct #: 91000

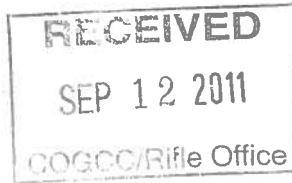
CHAIN-OF-CUSTODY RECORD

Date: 07-Apr-11
COC ID: 2892
Due Date: 12-Apr-11

Page 1 of 1

ALS
3505 Conestoga Dr
Fl. Wayne, IN 46808

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order	Project Name	1104136	Subcontracted Analyses (SUBCONTRACT)													
Work Order	Project Number		A	B	C	D	E	F	G	H	I	J				
Company Name	Bill To Company	ALS Group USA, Corp	C													
Send Report To	Inv Attn	Accounts Payable	D													
Address	Address	3352 128th Avenue	E													
City/State/Zip	City/State/Zip	Holland, Michigan 49424-9263	F													
Phone	Phone	(616) 399-6070	G													
Fax	Fax	(616) 399-6185	H													
eMail Address	eMail CC	ann.preston@alsglobal.com	I													
Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E	F	G	H	I	J			
1104136-04G (Plt #1 Confirmation)	Soil	5/Apr/2011 11:00	(1) TLWMGNEAT	X												
1104136-02C (Plt #2 Confirmation)	Soil	5/Apr/2011 11:30	(1) TLWMGNEAT	X												
1104136-03B (BKGD-1)	Soil	5/Apr/2011 12:00	(1) 80ZGNEAT	X												



4/12/11 Extra samples sent for -03
See Buion.

Comments:

Please run SAR-EC

Relinquished by:

Date/Time

Received by:

Date/Time

Cooler IDs

Report/QC Level

Relinquished by:

Date/Time

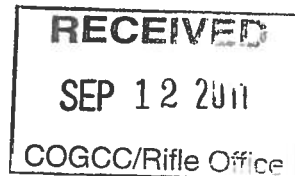
Received by:

Date/Time

Cooler IDs

Std

Sample Receipt Checklist



Client Name: HRL
 Work Order: 1104136

Date/Time Received: 06-Apr-11 09:30
 Received by: DS

Checklist completed by Diane Shaw
 eSignature

06-Apr-11
 Date

Reviewed by: Ann Preston
 eSignature

07-Apr-11
 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>5.6 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:

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

Signature
Date

EXPRESS
US Airbill

8746 3401 5858

0200

FedEx Retrieval Copy

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SEP 12 2011
COGCC/Rifle Office

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From: Sender's Name: **Kris Rave**
Company: **HEL Compliance Solutions Inc**
Address: **7114 Horizon Ct**
City: **Grand Junction** State: **CO** ZIP: **81506**
Phone: **970-213-5270**

2 Your Internal Billing Reference: **616 399-6070**

3 To: Recipient's Name: **Sample Recycling**
Company: **ALS Group Laboratory**
Address: **3352 128th AVE**
City: **Holland** State: **MI** ZIP: **49424**

4a Express Package Service: ☒ FedEx Priority Overnight ☐ FedEx Standard Overnight ☐ FedEx First Overnight
4b Express Freight Service: ☐ FedEx 10 Day Freight ☐ FedEx 20 Day Freight ☐ FedEx 30 Day Freight

5 Packaging: ☐ FedEx Envelope ☐ FedEx Pak ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options: ☐ Direct Signature ☐ Indirect Signature
☐ No Signature Required ☐ Signature Required ☐ Signature Required (Signature of Shipper or Agent)
☐ Signature Required (Signature of Shipper or Agent) ☐ Signature Required (Signature of Shipper or Agent)

7 Payment Bill to: ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

8 Total Packages: **1** Total Weight: **82** lbs.

9 Signature: **606**



8746 3401 5858

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