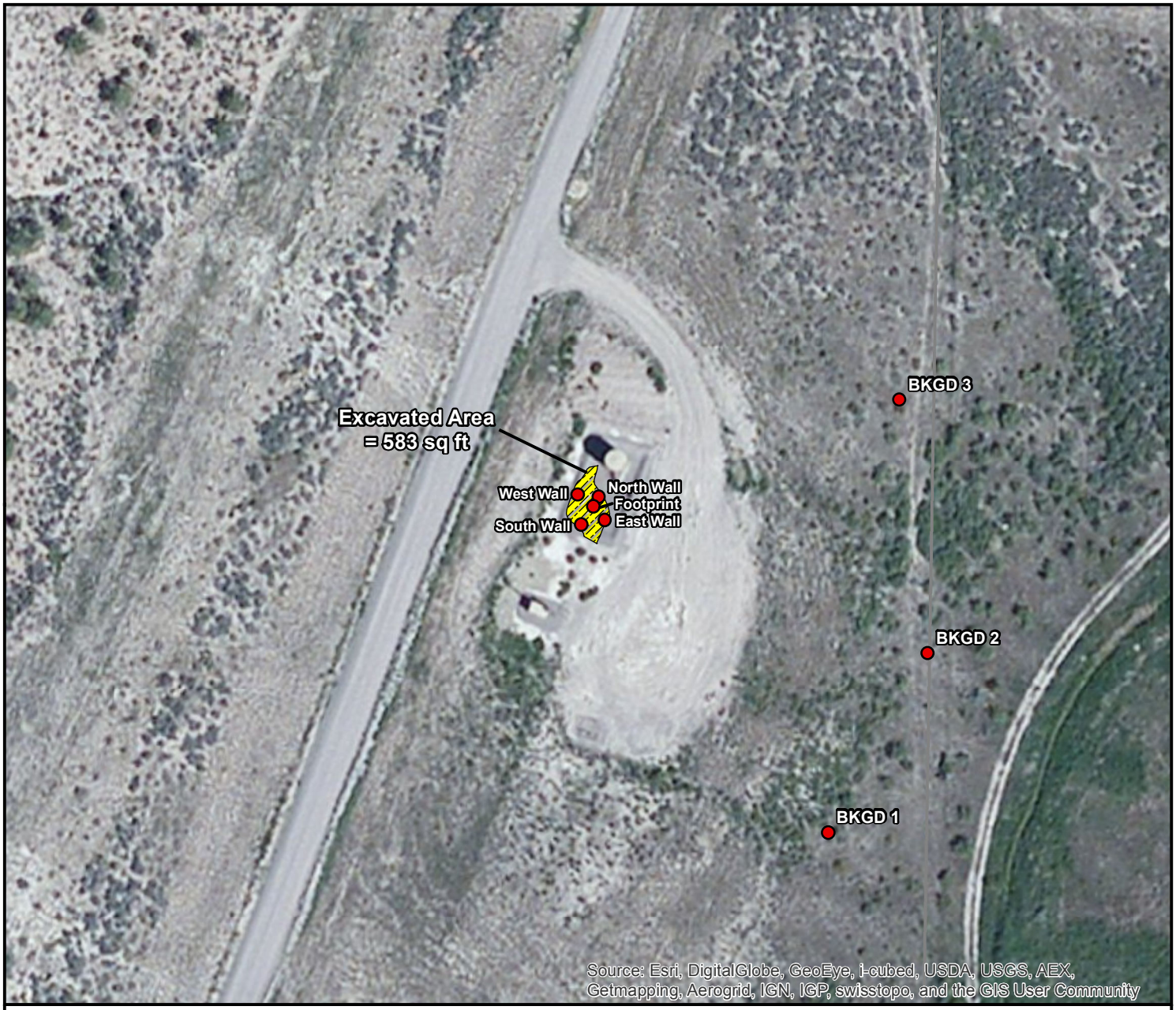
Chevron 41-8D (Location ID 324196)
Partially Buried Vessel Removal (Non-Facility ID 435735)
Form 4 (Notice of Completion)
Narrative Attachment
Document Date – 3/17/2015

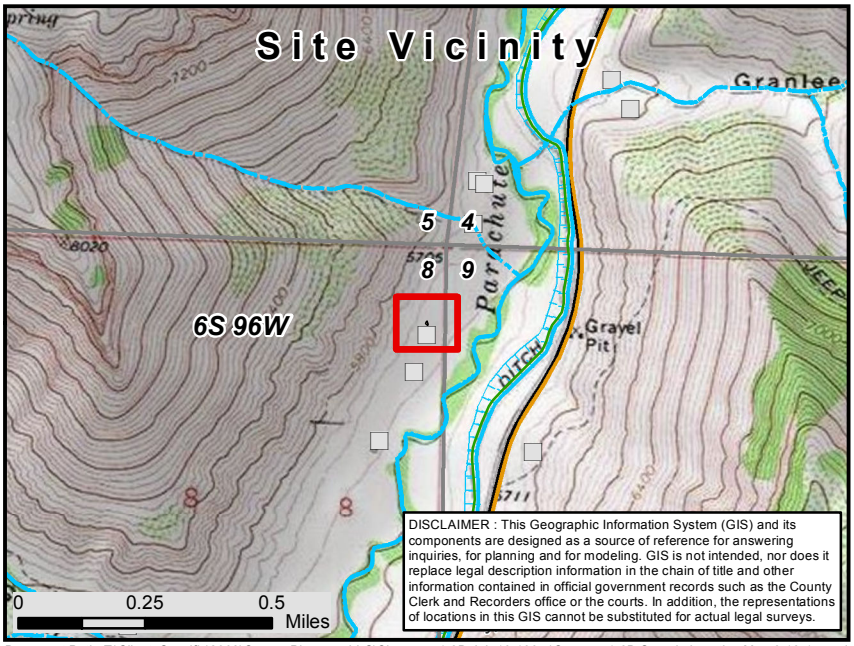
This Form 4 (Notice of Completion) was prepared for the purpose of describing completed work associated with the assessment of soil during the removal of a partially buried vessel (PBV) (Non-Facility ID 435735) at the Chevron 41-8D (Location ID 324196) in the Caerus Piceance, LLC (Caerus) area of operations. This assessment was conducted using procedures approved under COGCC Remediation #8164. A Sample Location Map is included as an attachment to this form.

Upon removing the PBV from the ground, field screen readings from around and below the tank indicated an absence of measureable hydrocarbon levels. Therefore, no soil was removed from beneath the PBV.

On July 22, 2013, confirmation samples were collected from the soil around and beneath the removed PBV (North Wall, 3', Footprint, 5.5', West Wall, 3', East Wall, 3', and South Wall, 3'). Soil samples were submitted for laboratory analysis of all COGCC Table 910-1 analytes. Analytical results indicate all soil samples were in compliance with COGCC Table 910-1 Concentration Levels for all analytes or were within background concentrations, except for the pH measurement (9.2) of soil sample South Wall, 3'. However, all laboratory results of hydrocarbon analytes were below laboratory reporting limits indicating that the PBV was not leaking and the soil beneath the PBV was not impacted by fluid within the tank. Background samples were collected from an undisturbed area east of the pad surface. Sample locations are depicted on the attached Sample Location Map and laboratory analytical results are summarized in the attached analytical table. Laboratory analytical reports are included as an attachment.

Based on removal of the PBV and soil analytical results, Caerus requests an NFA designation for this project.





DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.

CAERUS OIL AND GAS LLC

Sample Location Map

Location: Chevron 41-8D

39.544444 -108.122014
T6S R96W Sec 8 L1

- Sample Point
- Caerus Pad
- Perennial Stream
- Intermittent Stream
- Ditch/Canal
- Roads
- Township & Range
- Section
- Excavation Area

N

0 50 100 Feet

HCSI ENVIRONMENTAL CONSULTANTS
HRL COMPLIANCE SOLUTIONS, INC.

Document Path: T:\Client_Specific\2008\Caerus Piceance LLC\Chevron 41-8D Job 13-199-4\Caerus 41-8D Sample Location Map 3-10-14.mxd

Date: 3/18/2014 bhall

Caerus Piceance LLC
Chevron 41-8D Partially Buried Vault Removal
Soil Sample Confirmation and Background Analytical Results

			Sample ID							
COGCC Table 910-1 Analytical Suite	**Table 910-1 Standard**	**Units**	**North Wall, 3'**	**South Wall, 3'**	**East Wall, 3'**	**West Wall, 3'**	**Footprint, 5.5'**	**BKGD 1**	**BKGD 2**	**BKGD 3**
Sample Date			**7/22/2013**	**7/22/2013**	**7/22/2013**	**7/22/2013**	**7/22/2013**	**7/22/2013**	**7/22/2013**	**7/22/2013**
Organics										
TEPH (DRO)		**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
TVPH (GRO)		**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
TPH	**500**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
BENZENE	**0.17**	**mg/kg**	ND	ND	ND	ND	ND	ND	ND	ND
TOLUENE	**85**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
ETHYLBENZENE	**100**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
XYLENE TOTAL	**175**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
ACENAPHTHENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
ANTHRACENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
BENZO(A)ANTRHACENE	**0.22**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
BENZO(A)PYRENE	**0.022**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
BENZO(B)FLUORANTHENE	**0.22**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
BENZO(K)FLUORANTHENE	**2.2**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
CHRYSENE	**22**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
DIBENZO(A,H)ANTHRANCENE	**0.022**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
FLUORANTHENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
FLUORENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	**0.22**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
NAPHTHALENE	**23**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
PYRENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
Metals										
MERCURY	**23**	**mg/kg**	ND	0.030	0.019	0.025	0.021	NA	NA	NA
ARSENIC	**0.39**	**mg/kg**	9.4	8.5	9.2	9.4	10	39	8.3	8.6
BARIUM	**15,000**	**mg/kg**	250	210	220	290	250	NA	NA	NA
CADMIUM	**70**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
CHROMIUM (III)	**120,000**	**mg/kg**	11	10	10	11	11	NA	NA	NA
CHROMIUM (IV)	**23**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
COPPER	**3,100**	**mg/kg**	18	18	18	20	18	NA	NA	NA
LEAD	**400**	**mg/kg**	13	13	14	14	14	NA	NA	NA
NICKEL	**1,600**	**mg/kg**	20	18	20	20	19	NA	NA	NA
SELENIUM	**390**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
SILVER	**390**	**mg/kg**	ND	ND	ND	ND	ND	NA	NA	NA
ZINC	**23,000**	**mg/kg**	66	65	66	69	66	NA	NA	NA
Inorganics										
Sodium Adsorption Ratio	**<12**	**unitless**	6.3	4.9	6.2	5.4	5.0	2.8	NA	NA
Electrical Conductivity	**<4mmhos/cm or 2x background**	**mmhos/cm**	0.60	0.45	0.60	1.1	0.92	1.2	NA	NA
pH	**6 to 9**	**SU**	9.1	9.2	9.1	9.1	9.1	9.1	NA	NA

Notes:

highlight indicates reading above COGCC Table 910-1 Concentration Levels

ND - non detect

NA - not analyzed

SU - standard unit

mg/kg - milligram per kilogram

mmhos/cm - millimhos per centimeter

TEPH - total petroleum hydrocarbons - Diesel range organics

TVPH - total petroleum hydrocarbons - gasoline range organics

TPH - total petroleum hydrocarbons (TEPH and TVPH combined)

COGCC - Colorado Oil and Gas Conservation Commission

26-Jul-2013

Herman Lucero
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **PDC Caerus Chevron 41.8D 7/22/13** Work Order: **1307798**

Dear Herman,

ALS Environmental received 5 samples on 23-Jul-2013 10:00 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.

Sample results are compliant with NELAP standard requirements and QC results achieved 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 30.

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

Sincerely,

Ann Preston

Electronically approved by: Joseph Ribar

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 26-Jul-13

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13
Work Order: **1307798**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1307798-01	North Wall, 3'	Soil		7/22/2013 15:00	7/23/2013 10:00	☐
1307798-02	South Wall, 3'	Soil		7/22/2013 15:08	7/23/2013 10:00	☐
1307798-03	East Wall, 3'	Soil		7/22/2013 15:15	7/23/2013 10:00	☐
1307798-04	West Wall, 3'	Soil		7/22/2013 15:05	7/23/2013 10:00	☐
1307798-05	Footprint, 5.5'	Soil		7/22/2013 14:57	7/23/2013 10:00	☐

ALS Group USA, Corp

Date: 26-Jul-13

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13
WorkOrder: **1307798**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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 is present at an estimated concentration between the MDL and Report 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

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: *26-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: North Wall, 3' **Lab ID:** 1307798-01
Collection Date: 7/22/2013 03:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/23/2013**	Analyst: **RD**
DRO (C10-C28)	ND		5.1	mg/Kg-dry	1	7/24/2013 04:20 AM
Surr: 4-Terphenyl-d14	*71.0*		*39-115*	*%REC*	1	7/24/2013 04:20 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	7/23/2013 05:18 PM
Surr: Toluene-d8	*116*		*50-150*	*%REC*	50	7/23/2013 05:18 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/24/2013**	Analyst: **LR**
Mercury	ND		0.021	mg/Kg-dry	1	7/24/2013 03:48 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/23/2013**	Analyst: **ML**
Arsenic	**9.4**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:04 AM
Barium	**250**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:04 AM
Cadmium	ND		0.84	mg/Kg-dry	5	7/24/2013 12:04 AM
Chromium	**11**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:04 AM
Copper	**18**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:04 AM
Lead	**13**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:04 AM
Nickel	**20**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:04 AM
Selenium	ND		2.1	mg/Kg-dry	5	7/24/2013 12:04 AM
Silver	ND		2.1	mg/Kg-dry	5	7/24/2013 12:04 AM
Zinc	**66**		**4.2**	**mg/Kg-dry**	5	7/24/2013 12:04 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **RH**
Calcium	ND		10	mg/L	20	7/26/2013 03:08 PM
Magnesium	**7.0**		**4.0**	**mg/L**	20	7/26/2013 03:08 PM
Sodium	**100**		**4.0**	**mg/L**	20	7/26/2013 03:08 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **RH**
Sodium Adsorption Ratio	**6.3**		**0.010**	**none**	1	7/26/2013
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/23/2013**	Analyst: **RM**
Acenaphthene	ND		19	µg/Kg-dry	1	7/24/2013 12:01 PM
Acenaphthylene	ND		37	µg/Kg-dry	1	7/24/2013 12:01 PM
Anthracene	ND		19	µg/Kg-dry	1	7/24/2013 12:01 PM
Benzo(a)anthracene	ND		21	µg/Kg-dry	1	7/24/2013 12:01 PM
Benzo(a)pyrene	ND		21	µg/Kg-dry	1	7/24/2013 12:01 PM
Benzo(b)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 12:01 PM
Benzo(g,h,i)perylene	ND		35	µg/Kg-dry	1	7/24/2013 12:01 PM
Benzo(k)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 12:01 PM
Chrysene	ND		19	µg/Kg-dry	1	7/24/2013 12:01 PM
Dibenzo(a,h)anthracene	ND		22	µg/Kg-dry	1	7/24/2013 12:01 PM
Fluoranthene	ND		19	µg/Kg-dry	1	7/24/2013 12:01 PM

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

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: North Wall, 3' **Lab ID:** 1307798-01
Collection Date: 7/22/2013 03:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		19	µg/Kg-dry	1	7/24/2013 12:01 PM
Indeno(1,2,3-cd)pyrene	ND		25	µg/Kg-dry	1	7/24/2013 12:01 PM
Naphthalene	ND		19	µg/Kg-dry	1	7/24/2013 12:01 PM
Pyrene	ND		19	µg/Kg-dry	1	7/24/2013 12:01 PM
Surr: 2-Fluorobiphenyl	*59.7*		*12-100*	*%REC*	1	7/24/2013 12:01 PM
Surr: 4-Terphenyl-d14	*102*		*25-137*	*%REC*	1	7/24/2013 12:01 PM
Surr: Nitrobenzene-d5	*60.2*		*37-107*	*%REC*	1	7/24/2013 12:01 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/23/2013**	Analyst: **AK**
Benzene	ND		38	µg/Kg-dry	1	7/23/2013 08:21 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	7/23/2013 08:21 PM
m,p-Xylene	ND		75	µg/Kg-dry	1	7/23/2013 08:21 PM
o-Xylene	ND		38	µg/Kg-dry	1	7/23/2013 08:21 PM
Toluene	ND		38	µg/Kg-dry	1	7/23/2013 08:21 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/23/2013 08:21 PM
Surr: 1,2-Dichloroethane-d4	*97.0*		*70-130*	*%REC*	1	7/23/2013 08:21 PM
Surr: 4-Bromofluorobenzene	*97.6*		*70-130*	*%REC*	1	7/23/2013 08:21 PM
Surr: Dibromofluoromethane	*96.5*		*70-130*	*%REC*	1	7/23/2013 08:21 PM
Surr: Toluene-d8	*103*		*70-130*	*%REC*	1	7/23/2013 08:21 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **JB**
Electrical Conductivity @ Saturation	**0.60**		**0.050**	**mmhos/cm @2**	10	7/25/2013 03:10 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**11**		**0.63**	**mg/Kg-dry**	1	7/24/2013 03:00 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/23/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.61	mg/Kg-dry	1	7/24/2013 10:00 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**20**		**0.050**	**% of sample**	1	7/23/2013 12:40 PM
PH			**SW9045D**		Prep Date: **7/23/2013**	Analyst: **JB**
pH	**9.1**			**s.u.**	1	7/23/2013 11:00 AM

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

ALS Group USA, Corp

Date: *26-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: South Wall, 3' **Lab ID:** 1307798-02
Collection Date: 7/22/2013 03:08 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/23/2013**	Analyst: **RD**
DRO (C10-C28)	ND		5.1	mg/Kg-dry	1	7/24/2013 09:13 AM
Surr: 4-Terphenyl-d14	*74.5*		*39-115*	*%REC*	1	7/24/2013 09:13 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	50	7/23/2013 05:43 PM
Surr: Toluene-d8	*115*		*50-150*	*%REC*	50	7/23/2013 05:43 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/24/2013**	Analyst: **LR**
Mercury	**0.030**		**0.019**	**mg/Kg-dry**	1	7/24/2013 03:54 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/23/2013**	Analyst: **ML**
Arsenic	**8.5**		**2.4**	**mg/Kg-dry**	5	7/24/2013 12:10 AM
Barium	**210**		**2.4**	**mg/Kg-dry**	5	7/24/2013 12:10 AM
Cadmium	ND		0.95	mg/Kg-dry	5	7/24/2013 12:10 AM
Chromium	**10**		**2.4**	**mg/Kg-dry**	5	7/24/2013 12:10 AM
Copper	**18**		**2.4**	**mg/Kg-dry**	5	7/24/2013 12:10 AM
Lead	**13**		**2.4**	**mg/Kg-dry**	5	7/24/2013 12:10 AM
Nickel	**18**		**2.4**	**mg/Kg-dry**	5	7/24/2013 12:10 AM
Selenium	ND		2.4	mg/Kg-dry	5	7/24/2013 12:10 AM
Silver	ND		2.4	mg/Kg-dry	5	7/24/2013 12:10 AM
Zinc	**65**		**4.7**	**mg/Kg-dry**	5	7/24/2013 12:10 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **RH**
Calcium	ND		10	mg/L	20	7/26/2013 03:29 PM
Magnesium	**5.8**		**4.0**	**mg/L**	20	7/26/2013 03:29 PM
Sodium	**72**		**4.0**	**mg/L**	20	7/26/2013 03:29 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **RH**
Sodium Adsorption Ratio	**4.9**		**0.010**	**none**	1	7/26/2013
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/23/2013**	Analyst: **RM**
Acenaphthene	ND		18	µg/Kg-dry	1	7/24/2013 12:21 PM
Acenaphthylene	ND		36	µg/Kg-dry	1	7/24/2013 12:21 PM
Anthracene	ND		18	µg/Kg-dry	1	7/24/2013 12:21 PM
Benzo(a)anthracene	ND		21	µg/Kg-dry	1	7/24/2013 12:21 PM
Benzo(a)pyrene	ND		21	µg/Kg-dry	1	7/24/2013 12:21 PM
Benzo(b)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 12:21 PM
Benzo(g,h,i)perylene	ND		34	µg/Kg-dry	1	7/24/2013 12:21 PM
Benzo(k)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 12:21 PM
Chrysene	ND		18	µg/Kg-dry	1	7/24/2013 12:21 PM
Dibenzo(a,h)anthracene	ND		22	µg/Kg-dry	1	7/24/2013 12:21 PM
Fluoranthene	ND		18	µg/Kg-dry	1	7/24/2013 12:21 PM

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

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: South Wall, 3' **Lab ID:** 1307798-02
Collection Date: 7/22/2013 03:08 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		18	µg/Kg-dry	1	7/24/2013 12:21 PM
Indeno(1,2,3-cd)pyrene	ND		24	µg/Kg-dry	1	7/24/2013 12:21 PM
Naphthalene	ND		18	µg/Kg-dry	1	7/24/2013 12:21 PM
Pyrene	ND		18	µg/Kg-dry	1	7/24/2013 12:21 PM
Surr: 2-Fluorobiphenyl	*63.4*		*12-100*	*%REC*	1	7/24/2013 12:21 PM
Surr: 4-Terphenyl-d14	*106*		*25-137*	*%REC*	1	7/24/2013 12:21 PM
Surr: Nitrobenzene-d5	*63.5*		*37-107*	*%REC*	1	7/24/2013 12:21 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/23/2013**	Analyst: **AK**
Benzene	ND		37	µg/Kg-dry	1	7/23/2013 08:45 PM
Ethylbenzene	ND		37	µg/Kg-dry	1	7/23/2013 08:45 PM
m,p-Xylene	ND		73	µg/Kg-dry	1	7/23/2013 08:45 PM
o-Xylene	ND		37	µg/Kg-dry	1	7/23/2013 08:45 PM
Toluene	ND		37	µg/Kg-dry	1	7/23/2013 08:45 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/23/2013 08:45 PM
Surr: 1,2-Dichloroethane-d4	*97.8*		*70-130*	*%REC*	1	7/23/2013 08:45 PM
Surr: 4-Bromofluorobenzene	*97.3*		*70-130*	*%REC*	1	7/23/2013 08:45 PM
Surr: Dibromofluoromethane	*96.0*		*70-130*	*%REC*	1	7/23/2013 08:45 PM
Surr: Toluene-d8	*98.8*		*70-130*	*%REC*	1	7/23/2013 08:45 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **JB**
Electrical Conductivity @ Saturation	**0.45**		**0.050**	**mmhos/cm @2**	10	7/25/2013 03:10 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**10**		**0.61**	**mg/Kg-dry**	1	7/24/2013 03:00 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/23/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	7/24/2013 10:00 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**18**		**0.050**	**% of sample**	1	7/23/2013 12:40 PM
PH			**SW9045D**		Prep Date: **7/23/2013**	Analyst: **JB**
pH	**9.2**			**s.u.**	1	7/23/2013 11:00 AM

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

ALS Group USA, Corp

Date: *26-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: East Wall, 3' **Lab ID:** 1307798-03
Collection Date: 7/22/2013 03:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/23/2013**	Analyst: **RD**
DRO (C10-C28)	ND		5.0	mg/Kg-dry	1	7/24/2013 09:43 AM
Surr: 4-Terphenyl-d14	*67.1*		*39-115*	*%REC*	1	7/24/2013 09:43 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.1	mg/Kg-dry	50	7/23/2013 06:08 PM
Surr: Toluene-d8	*116*		*50-150*	*%REC*	50	7/23/2013 06:08 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/24/2013**	Analyst: **LR**
Mercury	**0.019**		**0.018**	**mg/Kg-dry**	1	7/24/2013 03:56 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/23/2013**	Analyst: **ML**
Arsenic	**9.2**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:15 AM
Barium	**220**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:15 AM
Cadmium	ND		0.85	mg/Kg-dry	5	7/24/2013 12:15 AM
Chromium	**10**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:15 AM
Copper	**18**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:15 AM
Lead	**14**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:15 AM
Nickel	**20**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:15 AM
Selenium	ND		2.1	mg/Kg-dry	5	7/24/2013 12:15 AM
Silver	ND		2.1	mg/Kg-dry	5	7/24/2013 12:15 AM
Zinc	**66**		**4.2**	**mg/Kg-dry**	5	7/24/2013 12:15 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **RH**
Calcium	ND		10	mg/L	20	7/26/2013 03:34 PM
Magnesium	**6.5**		**4.0**	**mg/L**	20	7/26/2013 03:34 PM
Sodium	**94**		**4.0**	**mg/L**	20	7/26/2013 03:34 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **RH**
Sodium Adsorption Ratio	**6.2**		**0.010**	**none**	1	7/26/2013
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/23/2013**	Analyst: **RM**
Acenaphthene	ND		18	µg/Kg-dry	1	7/24/2013 12:40 PM
Acenaphthylene	ND		36	µg/Kg-dry	1	7/24/2013 12:40 PM
Anthracene	ND		18	µg/Kg-dry	1	7/24/2013 12:40 PM
Benzo(a)anthracene	ND		20	µg/Kg-dry	1	7/24/2013 12:40 PM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	7/24/2013 12:40 PM
Benzo(b)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 12:40 PM
Benzo(g,h,i)perylene	ND		34	µg/Kg-dry	1	7/24/2013 12:40 PM
Benzo(k)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 12:40 PM
Chrysene	ND		18	µg/Kg-dry	1	7/24/2013 12:40 PM
Dibenzo(a,h)anthracene	ND		22	µg/Kg-dry	1	7/24/2013 12:40 PM
Fluoranthene	ND		18	µg/Kg-dry	1	7/24/2013 12:40 PM

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

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: East Wall, 3' **Lab ID:** 1307798-03
Collection Date: 7/22/2013 03:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		18	µg/Kg-dry	1	7/24/2013 12:40 PM
Indeno(1,2,3-cd)pyrene	ND		24	µg/Kg-dry	1	7/24/2013 12:40 PM
Naphthalene	ND		18	µg/Kg-dry	1	7/24/2013 12:40 PM
Pyrene	ND		18	µg/Kg-dry	1	7/24/2013 12:40 PM
Surr: 2-Fluorobiphenyl	*57.8*		*12-100*	*%REC*	1	7/24/2013 12:40 PM
Surr: 4-Terphenyl-d14	*95.8*		*25-137*	*%REC*	1	7/24/2013 12:40 PM
Surr: Nitrobenzene-d5	*57.6*		*37-107*	*%REC*	1	7/24/2013 12:40 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/23/2013**	Analyst: **AK**
Benzene	ND		37	µg/Kg-dry	1	7/23/2013 09:10 PM
Ethylbenzene	ND		37	µg/Kg-dry	1	7/23/2013 09:10 PM
m,p-Xylene	ND		73	µg/Kg-dry	1	7/23/2013 09:10 PM
o-Xylene	ND		37	µg/Kg-dry	1	7/23/2013 09:10 PM
Toluene	ND		37	µg/Kg-dry	1	7/23/2013 09:10 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/23/2013 09:10 PM
Surr: 1,2-Dichloroethane-d4	*97.4*		*70-130*	*%REC*	1	7/23/2013 09:10 PM
Surr: 4-Bromofluorobenzene	*94.1*		*70-130*	*%REC*	1	7/23/2013 09:10 PM
Surr: Dibromofluoromethane	*96.2*		*70-130*	*%REC*	1	7/23/2013 09:10 PM
Surr: Toluene-d8	*99.4*		*70-130*	*%REC*	1	7/23/2013 09:10 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **JB**
Electrical Conductivity @ Saturation	**0.60**		**0.050**	**mmhos/cm @2**	10	7/25/2013 03:10 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**10**		**0.61**	**mg/Kg-dry**	1	7/24/2013 03:00 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/23/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	7/24/2013 10:00 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**18**		**0.050**	**% of sample**	1	7/23/2013 12:40 PM
PH			**SW9045D**		Prep Date: **7/23/2013**	Analyst: **JB**
pH	**9.1**			**s.u.**	1	7/23/2013 11:00 AM

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

ALS Group USA, Corp

Date: *26-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: West Wall, 3' **Lab ID:** 1307798-04
Collection Date: 7/22/2013 03:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/23/2013**	Analyst: **RD**
DRO (C10-C28)	ND		5.0	mg/Kg-dry	1	7/24/2013 10:13 AM
Surr: 4-Terphenyl-d14	*71.0*		*39-115*	*%REC*	1	7/24/2013 10:13 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	50	7/23/2013 06:33 PM
Surr: Toluene-d8	*113*		*50-150*	*%REC*	50	7/23/2013 06:33 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/24/2013**	Analyst: **LR**
Mercury	**0.025**		**0.017**	**mg/Kg-dry**	1	7/24/2013 03:58 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/23/2013**	Analyst: **ML**
Arsenic	**9.4**		**2.3**	**mg/Kg-dry**	5	7/24/2013 12:21 AM
Barium	**290**		**2.3**	**mg/Kg-dry**	5	7/24/2013 12:21 AM
Cadmium	ND		0.92	mg/Kg-dry	5	7/24/2013 12:21 AM
Chromium	**11**		**2.3**	**mg/Kg-dry**	5	7/24/2013 12:21 AM
Copper	**20**		**2.3**	**mg/Kg-dry**	5	7/24/2013 12:21 AM
Lead	**14**		**2.3**	**mg/Kg-dry**	5	7/24/2013 12:21 AM
Nickel	**20**		**2.3**	**mg/Kg-dry**	5	7/24/2013 12:21 AM
Selenium	ND		2.3	mg/Kg-dry	5	7/24/2013 12:21 AM
Silver	ND		2.3	mg/Kg-dry	5	7/24/2013 12:21 AM
Zinc	**69**		**4.6**	**mg/Kg-dry**	5	7/24/2013 12:21 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **RH**
Calcium	**32**		**10**	**mg/L**	20	7/26/2013 03:39 PM
Magnesium	**13**		**4.0**	**mg/L**	20	7/26/2013 03:39 PM
Sodium	**140**		**4.0**	**mg/L**	20	7/26/2013 03:39 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **RH**
Sodium Adsorption Ratio	**5.4**		**0.010**	**none**	1	7/26/2013
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/23/2013**	Analyst: **RM**
Acenaphthene	ND		18	µg/Kg-dry	1	7/24/2013 01:00 AM
Acenaphthylene	ND		36	µg/Kg-dry	1	7/24/2013 01:00 AM
Anthracene	ND		18	µg/Kg-dry	1	7/24/2013 01:00 AM
Benzo(a)anthracene	ND		20	µg/Kg-dry	1	7/24/2013 01:00 AM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	7/24/2013 01:00 AM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	7/24/2013 01:00 AM
Benzo(g,h,i)perylene	ND		33	µg/Kg-dry	1	7/24/2013 01:00 AM
Benzo(k)fluoranthene	ND		21	µg/Kg-dry	1	7/24/2013 01:00 AM
Chrysene	ND		18	µg/Kg-dry	1	7/24/2013 01:00 AM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	7/24/2013 01:00 AM
Fluoranthene	ND		18	µg/Kg-dry	1	7/24/2013 01:00 AM

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

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: West Wall, 3' **Lab ID:** 1307798-04
Collection Date: 7/22/2013 03:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		18	µg/Kg-dry	1	7/24/2013 01:00 AM
Indeno(1,2,3-cd)pyrene	ND		24	µg/Kg-dry	1	7/24/2013 01:00 AM
Naphthalene	ND		18	µg/Kg-dry	1	7/24/2013 01:00 AM
Pyrene	ND		18	µg/Kg-dry	1	7/24/2013 01:00 AM
Surr: 2-Fluorobiphenyl	*62.5*		*12-100*	*%REC*	1	7/24/2013 01:00 AM
Surr: 4-Terphenyl-d14	*102*		*25-137*	*%REC*	1	7/24/2013 01:00 AM
Surr: Nitrobenzene-d5	*61.8*		*37-107*	*%REC*	1	7/24/2013 01:00 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/23/2013**	Analyst: **AK**
Benzene	ND		36	µg/Kg-dry	1	7/23/2013 09:34 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	7/23/2013 09:34 PM
m,p-Xylene	ND		73	µg/Kg-dry	1	7/23/2013 09:34 PM
o-Xylene	ND		36	µg/Kg-dry	1	7/23/2013 09:34 PM
Toluene	ND		36	µg/Kg-dry	1	7/23/2013 09:34 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/23/2013 09:34 PM
Surr: 1,2-Dichloroethane-d4	*99.2*		*70-130*	*%REC*	1	7/23/2013 09:34 PM
Surr: 4-Bromofluorobenzene	*94.3*		*70-130*	*%REC*	1	7/23/2013 09:34 PM
Surr: Dibromofluoromethane	*97.6*		*70-130*	*%REC*	1	7/23/2013 09:34 PM
Surr: Toluene-d8	*100*		*70-130*	*%REC*	1	7/23/2013 09:34 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **JB**
Electrical Conductivity @ Saturation	**1.1**		**0.050**	**mmhos/cm @2**	10	7/25/2013 03:10 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**11**		**0.61**	**mg/Kg-dry**	1	7/24/2013 03:00 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/23/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	7/24/2013 10:00 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**18**		**0.050**	**% of sample**	1	7/23/2013 12:40 PM
PH			**SW9045D**		Prep Date: **7/23/2013**	Analyst: **JB**
pH	**9.1**			**s.u.**	1	7/23/2013 11:00 AM

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

ALS Group USA, Corp

Date: *26-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13
Work Order: 1307798
Sample ID: Footprint, 5.5'
Lab ID: 1307798-05
Collection Date: 7/22/2013 02:57 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/23/2013**	Analyst: **RD**
DRO (C10-C28)	ND		5.0	mg/Kg-dry	1	7/24/2013 10:43 AM
Surr: 4-Terphenyl-d14	*66.9*		*39-115*	*%REC*	1	7/24/2013 10:43 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	50	7/23/2013 06:58 PM
Surr: Toluene-d8	*115*		*50-150*	*%REC*	50	7/23/2013 06:58 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/24/2013**	Analyst: **LR**
Mercury	**0.021**		**0.017**	**mg/Kg-dry**	1	7/24/2013 04:01 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/23/2013**	Analyst: **ML**
Arsenic	**10**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:27 AM
Barium	**250**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:27 AM
Cadmium	ND		0.86	mg/Kg-dry	5	7/24/2013 12:27 AM
Chromium	**11**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:27 AM
Copper	**18**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:27 AM
Lead	**14**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:27 AM
Nickel	**19**		**2.1**	**mg/Kg-dry**	5	7/24/2013 12:27 AM
Selenium	ND		2.1	mg/Kg-dry	5	7/24/2013 12:27 AM
Silver	ND		2.1	mg/Kg-dry	5	7/24/2013 12:27 AM
Zinc	**66**		**4.3**	**mg/Kg-dry**	5	7/24/2013 12:27 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **RH**
Calcium	**25**		**10**	**mg/L**	20	7/26/2013 03:44 PM
Magnesium	**12**		**4.0**	**mg/L**	20	7/26/2013 03:44 PM
Sodium	**120**		**4.0**	**mg/L**	20	7/26/2013 03:44 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **RH**
Sodium Adsorption Ratio	**5.0**		**0.010**	**none**	1	7/26/2013
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/23/2013**	Analyst: **RM**
Acenaphthene	ND		18	µg/Kg-dry	1	7/24/2013 01:19 AM
Acenaphthylene	ND		36	µg/Kg-dry	1	7/24/2013 01:19 AM
Anthracene	ND		18	µg/Kg-dry	1	7/24/2013 01:19 AM
Benzo(a)anthracene	ND		20	µg/Kg-dry	1	7/24/2013 01:19 AM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	7/24/2013 01:19 AM
Benzo(b)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 01:19 AM
Benzo(g,h,i)perylene	ND		34	µg/Kg-dry	1	7/24/2013 01:19 AM
Benzo(k)fluoranthene	ND		22	µg/Kg-dry	1	7/24/2013 01:19 AM
Chrysene	ND		18	µg/Kg-dry	1	7/24/2013 01:19 AM
Dibenzo(a,h)anthracene	ND		22	µg/Kg-dry	1	7/24/2013 01:19 AM
Fluoranthene	ND		18	µg/Kg-dry	1	7/24/2013 01:19 AM

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

ALS Group USA, Corp

Date: *26-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Caerus Chevron 41.8D 7/22/13 **Work Order:** 1307798
Sample ID: Footprint, 5.5' **Lab ID:** 1307798-05
Collection Date: 7/22/2013 02:57 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		18	µg/Kg-dry	1	7/24/2013 01:19 AM
Indeno(1,2,3-cd)pyrene	ND		24	µg/Kg-dry	1	7/24/2013 01:19 AM
Naphthalene	ND		18	µg/Kg-dry	1	7/24/2013 01:19 AM
Pyrene	ND		18	µg/Kg-dry	1	7/24/2013 01:19 AM
Surr: 2-Fluorobiphenyl	*52.7*		*12-100*	*%REC*	1	7/24/2013 01:19 AM
Surr: 4-Terphenyl-d14	*97.2*		*25-137*	*%REC*	1	7/24/2013 01:19 AM
Surr: Nitrobenzene-d5	*53.0*		*37-107*	*%REC*	1	7/24/2013 01:19 AM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/23/2013**	Analyst: **AK**
Benzene	ND		36	µg/Kg-dry	1	7/23/2013 09:59 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	7/23/2013 09:59 PM
m,p-Xylene	ND		73	µg/Kg-dry	1	7/23/2013 09:59 PM
o-Xylene	ND		36	µg/Kg-dry	1	7/23/2013 09:59 PM
Toluene	ND		36	µg/Kg-dry	1	7/23/2013 09:59 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/23/2013 09:59 PM
Surr: 1,2-Dichloroethane-d4	*98.0*		*70-130*	*%REC*	1	7/23/2013 09:59 PM
Surr: 4-Bromofluorobenzene	*99.8*		*70-130*	*%REC*	1	7/23/2013 09:59 PM
Surr: Dibromofluoromethane	*95.8*		*70-130*	*%REC*	1	7/23/2013 09:59 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	7/23/2013 09:59 PM
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **JB**
Electrical Conductivity @ Saturation	**0.92**		**0.050**	**mmhos/cm @2**	10	7/25/2013 03:10 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**11**		**0.61**	**mg/Kg-dry**	1	7/24/2013 03:00 PM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/23/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	7/24/2013 10:00 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**18**		**0.050**	**% of sample**	1	7/23/2013 12:40 PM
PH			**SW9045D**		Prep Date: **7/23/2013**	Analyst: **JB**
pH	**9.1**			**s.u.**	1	7/23/2013 11:00 AM

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

QC BATCH REPORT

Batch ID: **49925** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-49925-49925** Units: **mg/Kg** Analysis Date: **7/23/2013 06:17 PM**

Client ID: Run ID: **GC8_130723A** SeqNo: **2388928** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2	0	0	0		0			
Surr: 4-Terphenyl-d14	*1.252*	0	*1.667*	0	*75.1*	*39-115*	0			

LCS Sample ID: **DLCSS1-49925-49925** Units: **mg/Kg** Analysis Date: **7/23/2013 06:47 PM**

Client ID: Run ID: **GC8_130723A** SeqNo: **2388929** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	143.4	4.2	166.7	0	86.1	49-124	0			
Surr: 4-Terphenyl-d14	*1.082*	0	*1.667*	0	*64.9*	*39-115*	0			

MS Sample ID: **1307778-01A MS** Units: **mg/Kg** Analysis Date: **7/23/2013 07:17 PM**

Client ID: Run ID: **GC8_130723A** SeqNo: **2388930** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	450.5	12	466.8	159.1	62.4	49-130	0			
Surr: 4-Terphenyl-d14	*3.921*	0	*4.668*	0	*84*	*39-115*	0			

MSD Sample ID: **1307778-01A MSD** Units: **mg/Kg** Analysis Date: **7/23/2013 07:48 PM**

Client ID: Run ID: **GC8_130723A** SeqNo: **2388931** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	516	12	484.8	159.1	73.6	49-130	450.5	13.6	30	
Surr: 4-Terphenyl-d14	*3.012*	0	*4.848*	0	*62.1*	*39-115*	3.921	*26.2*	*30*	

The following samples were analyzed in this batch: 1307798-01B, 1307798-02B, 1307798-03B, 1307798-04B, 1307798-05B

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **R124012** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **GBLK1-130723-R124012** Units: **µg/L** Analysis Date: **7/23/2013 10:33 AM**
Client ID: Run ID: **GC9_130723A** SeqNo: **2387550** 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	*116.2*	0	*100*	0	*116*	*70-130*	0			

LCS Sample ID: **GLCS1-130723-R124012** Units: **µg/L** Analysis Date: **7/23/2013 10:08 AM**
Client ID: Run ID: **GC9_130723A** SeqNo: **2387549** 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)	8305	200	10000	0	83	70-130	0			
Surr: Toluene-d8	*110.2*	0	*100*	0	*110*	*70-130*	0			

MS Sample ID: **1307796-01A MS** Units: **µg/L** Analysis Date: **7/23/2013 07:23 PM**
Client ID: Run ID: **GC9_130723A** SeqNo: **2388204** 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)	9744	200	10000	0	97.4	70-130	0			
Surr: Toluene-d8	*114.7*	0	*100*	0	*115*	*70-130*	0			

MSD Sample ID: **1307796-01A MSD** Units: **µg/L** Analysis Date: **7/23/2013 07:48 PM**
Client ID: Run ID: **GC9_130723A** SeqNo: **2388205** 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)	9423	200	10000	0	94.2	70-130	9744	3.35	30	
Surr: Toluene-d8	*101.9*	0	*100*	0	*102*	*70-130*	114.7	*11.8*	*30*	

The following samples were analyzed in this batch:

1307798-01A	1307798-02A	1307798-03A
1307798-04A	1307798-05A	

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49966** Instrument ID **HG1** Method: **SW7471**

MBLK Sample ID: **MBLK-49966-49966** Units: **mg/Kg** Analysis Date: **7/24/2013 03:44 PM**
Client ID: Run ID: **HG1_130724A** SeqNo: **2389310** Prep Date: **7/24/2013** 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-49966-49966** Units: **mg/Kg** Analysis Date: **7/24/2013 03:46 PM**
Client ID: Run ID: **HG1_130724A** SeqNo: **2389311** Prep Date: **7/24/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1751	0.020	0.1665	0	105	80-120	0			

MS Sample ID: **1307798-01BMS** Units: **mg/Kg** Analysis Date: **7/24/2013 03:50 PM**
Client ID: **North Wall, 3'** Run ID: **HG1_130724A** SeqNo: **2389313** Prep Date: **7/24/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1378	0.016	0.1365	0.01241	91.9	75-125	0			

MSD Sample ID: **1307798-01BMSD** Units: **mg/Kg** Analysis Date: **7/24/2013 03:52 PM**
Client ID: **North Wall, 3'** Run ID: **HG1_130724A** SeqNo: **2389314** Prep Date: **7/24/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1419	0.017	0.138	0.01241	93.8	75-125	0.1378	2.87	35	

The following samples were analyzed in this batch:

1307798-01B	1307798-02B	1307798-03B
1307798-04B	1307798-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49937** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-49937-49937** Units: **mg/Kg** Analysis Date: **7/23/2013 08:49 PM**
Client ID: Run ID: **ICPMS1_130723A** SeqNo: **2388699** Prep Date: **7/23/2013** 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	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	0.07565	0.25								J
Silver	ND	0.25								
Zinc	0.02686	0.50								J

LCS Sample ID: **LCS-49937-49937** Units: **mg/Kg** Analysis Date: **7/23/2013 08:55 PM**
Client ID: Run ID: **ICPMS1_130723A** SeqNo: **2388701** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.866	0.25	5	0	97.3	80-120	0			
Barium	5.11	0.25	5	0	102	80-120	0			
Cadmium	4.89	0.10	5	0	97.8	80-120	0			
Chromium	4.758	0.25	5	0	95.2	80-120	0			
Copper	5.045	0.25	5	0	101	80-120	0			
Lead	5.18	0.25	5	0	104	80-120	0			
Nickel	5.055	0.25	5	0	101	80-120	0			
Selenium	4.27	0.25	5	0	85.4	80-120	0			
Silver	4.796	0.25	5	0	95.9	80-120	0			
Zinc	4.375	0.50	5	0	87.5	80-120	0			

MS Sample ID: **1307776-06AMS** Units: **mg/Kg** Analysis Date: **7/23/2013 09:07 PM**
Client ID: Run ID: **ICPMS1_130723A** SeqNo: **2388706** Prep Date: **7/23/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	19.49	1.7	6.64	19.54	-0.74	75-125	0			S
Barium	122.8	1.7	6.64	120.9	28.4	75-125	0			SO
Cadmium	7.659	0.66	6.64	0.6457	106	75-125	0			
Chromium	26	1.7	6.64	17.47	128	75-125	0			S
Copper	23.1	1.7	6.64	14.99	122	75-125	0			
Lead	32	1.7	6.64	21.91	152	75-125	0			S
Nickel	17.36	1.7	6.64	9.865	113	75-125	0			
Selenium	8.234	1.7	6.64	1.925	95	75-125	0			
Silver	6.624	1.7	6.64	0.1593	97.4	75-125	0			
Zinc	86.75	3.3	6.64	79.36	111	75-125	0			O

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49937** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **1307776-06AMSD** Units: **mg/Kg** Analysis Date: **7/23/2013 09:12 PM**
Client ID: Run ID: **ICPMS1_130723A** SeqNo: **2388709** Prep Date: **7/23/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	19.97	1.6	6.46	19.54	6.75	75-125	19.49	2.46	25	S
Barium	113.7	1.6	6.46	120.9	-111	75-125	122.8	7.68	25	SO
Cadmium	7.752	0.65	6.46	0.6457	110	75-125	7.659	1.2	25	
Chromium	24.82	1.6	6.46	17.47	114	75-125	26	4.62	25	
Copper	23.83	1.6	6.46	14.99	137	75-125	23.1	3.11	25	S
Lead	31.45	1.6	6.46	21.91	148	75-125	32	1.75	25	S
Nickel	16.96	1.6	6.46	9.865	110	75-125	17.36	2.33	25	
Selenium	8.362	1.6	6.46	1.925	99.7	75-125	8.234	1.55	25	
Silver	6.693	1.6	6.46	0.1593	101	75-125	6.624	1.04	25	
Zinc	91.47	3.2	6.46	79.36	187	75-125	86.75	5.3	25	SO

The following samples were analyzed in this batch: 1307798-01B 1307798-02B 1307798-03B 1307798-04B 1307798-05B

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49922** Instrument ID **SVMS6** Method: **SW8270**

MBLK Sample ID: **SBLKS1-49922-49922** Units: **µg/Kg** Analysis Date: **7/23/2013 07:30 PM**
Client ID: Run ID: **SVMS6_130723A** SeqNo: **2389347** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Acenaphthylene	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-Fluorobiphenyl	*1152*	0	*1667*	0	*69.1*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1696*	0	*1667*	0	*102*	*25-137*	0			
Surr: Nitrobenzene-d5	*1149*	0	*1667*	0	*68.9*	*37-107*	0			

LCS Sample ID: **SLCSS1-49922-49922** Units: **µg/Kg** Analysis Date: **7/23/2013 07:49 PM**
Client ID: Run ID: **SVMS6_130723A** SeqNo: **2389348** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	479.3	30	666.7	0	71.9	45-110	0			
Acenaphthylene	514.7	30	666.7	0	77.2	45-105	0			
Anthracene	588.3	30	666.7	0	88.2	55-105	0			
Benzo(a)anthracene	569.3	30	666.7	0	85.4	50-110	0			
Benzo(a)pyrene	626	30	666.7	0	93.9	50-110	0			
Benzo(b)fluoranthene	590	30	666.7	0	88.5	45-115	0			
Benzo(g,h,i)perylene	560	30	666.7	0	84	40-125	0			
Benzo(k)fluoranthene	590.3	30	666.7	0	88.5	45-115	0			
Chrysene	587.7	30	666.7	0	88.1	55-110	0			
Dibenzo(a,h)anthracene	546.7	30	666.7	0	82	40-125	0			
Fluoranthene	597	30	666.7	0	89.5	55-115	0			
Fluorene	494.3	30	666.7	0	74.1	50-110	0			
Indeno(1,2,3-cd)pyrene	621.3	30	666.7	0	93.2	40-120	0			
Naphthalene	471.3	30	666.7	0	70.7	40-105	0			
Pyrene	575	30	666.7	0	86.2	45-125	0			
Surr: 2-Fluorobiphenyl	*1187*	0	*1667*	0	*71.2*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1681*	0	*1667*	0	*101*	*25-137*	0			
Surr: Nitrobenzene-d5	*1233*	0	*1667*	0	*74*	*37-107*	0			

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49922** Instrument ID **SVMS6** Method: **SW8270**

MS Sample ID: **1307778-01A MS** Units: **µg/Kg** Analysis Date: **7/23/2013 08:09 PM**
Client ID: Run ID: **SVMS6_130723A** SeqNo: **2389353** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1313	84	1875	0	70	45-110	0			
Acenaphthylene	1450	84	1875	0	77.3	45-105	0			
Anthracene	1677	84	1875	0	89.4	55-105	0			
Benzo(a)anthracene	1642	84	1875	88.72	82.8	50-110	0			
Benzo(a)pyrene	1828	84	1875	104.1	91.9	50-110	0			
Benzo(b)fluoranthene	1766	84	1875	121.5	87.7	45-115	0			
Benzo(g,h,i)perylene	1717	84	1875	101.3	86.1	40-125	0			
Benzo(k)fluoranthene	1577	84	1875	0	84.1	45-115	0			
Chrysene	1624	84	1875	48.22	84	55-110	0			
Dibenzo(a,h)anthracene	1543	84	1875	125.4	75.6	40-125	0			
Fluoranthene	1701	84	1875	87.75	86	55-115	0			
Fluorene	1392	84	1875	0	74.2	50-110	0			
Indeno(1,2,3-cd)pyrene	1897	84	1875	124.4	94.6	40-120	0			
Naphthalene	1031	84	1875	0	55	40-105	0			
Pyrene	1827	84	1875	107	91.7	45-125	0			
Surr: 2-Fluorobiphenyl	*3070*	0	*4687*	0	*65.5*	*12-100*	0			
Surr: 4-Terphenyl-d14	*4729*	0	*4687*	0	*101*	*25-137*	0			
Surr: Nitrobenzene-d5	*2775*	0	*4687*	0	*59.2*	*37-107*	0			

MSD Sample ID: **1307778-01A MSD** Units: **µg/Kg** Analysis Date: **7/23/2013 08:28 PM**
Client ID: Run ID: **SVMS6_130723A** SeqNo: **2389354** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1301	84	1857	0	70	45-110	1313	0.942	30	
Acenaphthylene	1456	84	1857	0	78.4	45-105	1450	0.406	30	
Anthracene	1709	84	1857	0	92	55-105	1677	1.87	30	
Benzo(a)anthracene	1683	84	1857	88.72	85.8	50-110	1642	2.48	30	
Benzo(a)pyrene	1859	84	1857	104.1	94.5	50-110	1828	1.69	30	
Benzo(b)fluoranthene	1790	84	1857	121.5	89.9	45-115	1766	1.37	30	
Benzo(g,h,i)perylene	1707	84	1857	101.3	86.4	40-125	1717	0.561	30	
Benzo(k)fluoranthene	1606	84	1857	0	86.4	45-115	1577	1.81	30	
Chrysene	1659	84	1857	48.22	86.7	55-110	1624	2.13	30	
Dibenzo(a,h)anthracene	1543	84	1857	125.4	76.3	40-125	1543	0.0352	30	
Fluoranthene	1733	84	1857	87.75	88.6	55-115	1701	1.88	30	
Fluorene	1445	84	1857	0	77.8	50-110	1392	3.73	30	
Indeno(1,2,3-cd)pyrene	1862	84	1857	124.4	93.5	40-120	1897	1.89	30	
Naphthalene	1088	84	1857	0	58.6	40-105	1031	5.4	30	
Pyrene	1915	84	1857	107	97.3	45-125	1827	4.69	30	
Surr: 2-Fluorobiphenyl	*3024*	0	*4643*	0	*65.1*	*12-100*	3070	*1.52*	*40*	
Surr: 4-Terphenyl-d14	*4885*	0	*4643*	0	*105*	*25-137*	4729	*3.25*	*40*	
Surr: Nitrobenzene-d5	*2893*	0	*4643*	0	*62.3*	*37-107*	2775	*4.16*	*40*	

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49922** Instrument ID **SVMS6** Method: **SW8270**

The following samples were analyzed in this batch:

1307798-01B	1307798-02B	1307798-03B
1307798-04B	1307798-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49929** Instrument ID **VMS9** Method: **SW8260B**

MBLK Sample ID: **MBLK-49929-49929** Units: **µg/Kg** Analysis Date: **7/23/2013 05:19 PM**
Client ID: Run ID: **VMS9_130723A** SeqNo: **2388879** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	*1038*	0	*1000*	0	*104*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*977*	0	*1000*	0	*97.7*	*70-130*	0			
Surr: Dibromofluoromethane	*947.5*	0	*1000*	0	*94.8*	*70-130*	0			
Surr: Toluene-d8	*1034*	0	*1000*	0	*103*	*70-130*	0			

LCS Sample ID: **LCS-49929-49929** Units: **µg/Kg** Analysis Date: **7/23/2013 04:11 PM**
Client ID: Run ID: **VMS9_130723A** SeqNo: **2388878** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	971.5	30	1000	0	97.2	75-125	0			
Ethylbenzene	1046	30	1000	0	105	75-125	0			
m,p-Xylene	2062	60	2000	0	103	80-125	0			
o-Xylene	1004	30	1000	0	100	75-125	0			
Toluene	1006	30	1000	0	101	70-125	0			
Xylenes, Total	3066	90	3000	0	102	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1042*	0	*1000*	0	*104*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*981*	0	*1000*	0	*98.1*	*70-130*	0			
Surr: Dibromofluoromethane	*1028*	0	*1000*	0	*103*	*70-130*	0			
Surr: Toluene-d8	*1028*	0	*1000*	0	*103*	*70-130*	0			

MS Sample ID: **1307762-16A MS** Units: **µg/Kg** Analysis Date: **7/25/2013 09:19 PM**
Client ID: Run ID: **VMS7_130725A** SeqNo: **2391245** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	864.5	30	1000	0	86.4	75-125	0			
Ethylbenzene	898	30	1000	14	88.4	75-125	0			
m,p-Xylene	1785	60	2000	43	87.1	80-125	0			
o-Xylene	877	30	1000	13	86.4	75-125	0			
Toluene	841	30	1000	9	83.2	70-125	0			
Xylenes, Total	2662	90	3000	56	86.9	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1009*	0	*1000*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1017*	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*1008*	0	*1000*	0	*101*	*70-130*	0			
Surr: Toluene-d8	*952.5*	0	*1000*	0	*95.2*	*70-130*	0			

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49929** Instrument ID **VMS9** Method: **SW8260B**

MSD Sample ID: **1307762-16A MSD** Units: **µg/Kg** Analysis Date: **7/25/2013 09:44 PM**
Client ID: Run ID: **VMS7_130725A** SeqNo: **2391246** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	847	30	1000	0	84.7	75-125	864.5	2.04	30	
Ethylbenzene	886	30	1000	14	87.2	75-125	898	1.35	30	
m,p-Xylene	1806	60	2000	43	88.2	80-125	1785	1.17	30	
o-Xylene	900.5	30	1000	13	88.8	75-125	877	2.64	30	
Toluene	854	30	1000	9	84.5	70-125	841	1.53	30	
Xylenes, Total	2706	90	3000	56	88.4	75-125	2662	1.66	30	
Surr: 1,2-Dichloroethane-d4	*1006*	0	*1000*	0	*101*	*70-130*	1009	*0.347*	*30*	
Surr: 4-Bromofluorobenzene	*1054*	0	*1000*	0	*105*	*70-130*	1017	*3.53*	*30*	
Surr: Dibromofluoromethane	*999.5*	0	*1000*	0	*100*	*70-130*	1008	*0.896*	*30*	
Surr: Toluene-d8	*990.5*	0	*1000*	0	*99*	*70-130*	952.5	*3.91*	*30*	

The following samples were analyzed in this batch: 1307798-01A 1307798-02A 1307798-03A 1307798-04A 1307798-05A

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49915** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP Sample ID: **1307634-01B DUP** Units: **mmhos/cm @25°** Analysis Date: **7/25/2013 03:10 PM**
Client ID: Run ID: **WETCHEM_130725J** SeqNo: **2390794** Prep Date: **7/25/2013** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturatio	1.583	0.050	0	0	0		1.847	15.4	50	

The following samples were analyzed in this batch:

1307798-01C	1307798-02C	1307798-03C
1307798-04C	1307798-05C	

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49934** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-49934-49934** Units: **s.u.** Analysis Date: **7/23/2013 11:00 AM**
Client ID: Run ID: **WETCHEM_130723L** SeqNo: **2388161** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.53	0	4.4	0	103	90-110	0			

DUP Sample ID: **1307798-01B DUP** Units: **s.u.** Analysis Date: **7/23/2013 11:00 AM**
Client ID: **North Wall, 3'** Run ID: **WETCHEM_130723L** SeqNo: **2388163** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.13	0	0	0	0	0-0	9.13	0	20	

The following samples were analyzed in this batch:

1307798-01B	1307798-02B	1307798-03B
1307798-04B	1307798-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **49954** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-49954-49954** Units: **mg/Kg** Analysis Date: **7/24/2013 10:00 AM**
Client ID: Run ID: **WETCHEM_130724E** SeqNo: **2388516** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.50								

LCS Sample ID: **LCS-49954-49954** Units: **mg/Kg** Analysis Date: **7/24/2013 10:00 AM**
Client ID: Run ID: **WETCHEM_130724E** SeqNo: **2388515** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.772	0.50	2	0	88.6	75-110	0			

MS Sample ID: **1307634-01A MS** Units: **mg/Kg** Analysis Date: **7/24/2013 10:00 AM**
Client ID: Run ID: **WETCHEM_130724E** SeqNo: **2388508** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.41	0.50	1.992	0	70.8	60-130	0			

MSD Sample ID: **1307634-01A MSD** Units: **mg/Kg** Analysis Date: **7/24/2013 10:00 AM**
Client ID: Run ID: **WETCHEM_130724E** SeqNo: **2388509** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.61	0.50	1.992	0	80.8	60-130	1.41	13.2	30	

The following samples were analyzed in this batch:

1307798-01B	1307798-02B	1307798-03B
1307798-04B	1307798-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307798
Project: PDC Caerus Chevron 41.8D 7/22/13

QC BATCH REPORT

Batch ID: **R124049** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R124049** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388372** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS Sample ID: **LCS-R124049** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388371** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1307776-06A DUP** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388357** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	48.63	0.050	0	0	0	0-0	49.35	1.47	20	

DUP Sample ID: **1307798-01B DUP** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: **North Wall, 3'** Run ID: **MOIST_130723A** SeqNo: **2388365** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.99	0.050	0	0	0	0-0	20.28	1.44	20	

The following samples were analyzed in this batch:

1307798-01B	1307798-02B	1307798-03B
1307798-04B	1307798-05B	

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

ALS Laboratory Group

3352 128th Ave. Holland, MI 49424
TF: (800) 443-1511 PH: (616) 399-6070 FX: (616) 399-6185

Chain-of-Custody

Form 202r8

WORKORDER # 1307798

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

PROJECT NAME	CAERUS CHEVRON 41-8D	SAMPLER	Casey Richardson
PROJECT No.		SITE ID	
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HCSI	BILL TO COMPANY	PDC Energy
SEND REPORT TO	Herman Lucero	INVOICE ATTN TO	Ed Winters
ADDRESS	2385 F 1/2 Road	ADDRESS	120 Railroad Ave. Suite D
CITY / STATE / ZIP	Grand Junction, CO. 81505	CITY / STATE / ZIP	Parachute, CO 81635
PHONE	970-243-3271	PHONE	970-285-9606
FAX	970-243-3280	FAX	
E-MAIL	hlucero@hrlcomp.com crichardson@hrlcomp.com	E-MAIL	ewinters@pdce.com

DATE 7-22-13

TURNAROUND 24 HR

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO	GRO	BTEX	TOTAL METALS - TABEL 910-1	SEMI VOLS - PAH	SAR	EC	pH
1	NORTH WALL, 3'	SOIL	7-22-13	1500	3	8		X	X	X	X	X	X	X	X
2	SOUTH WALL, 3'	↓		1508	↓	↓		↓	↓	↓	↓	↓	↓	↓	↓
3	EAST WALL, 3'			1515											
4	WEST WALL, 3'			1505											
5	FOOTPRINT, 5.5'	↓		1457	↓	↓		↓	↓	↓	↓	↓	↓	↓	↓

*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: 5.0'

QC PACKAGE (check below)	
x	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	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Casey Richardson	7-22-13	1625
RECEIVED BY		Colby Koerner	7/22/13	1625
RELINQUISHED BY		Colby Koerner	7/22/13	1625
RECEIVED BY	FedEx			
RELINQUISHED BY				
RECEIVED BY		Diane Shea	7/23/13	1000

From: (970) 424-4749
Lab Hub, LLC

127 E First Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J1311302120326

Ship Date: 22JUL13
ActWgt: 80.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-072213-3
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070 BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

TUE - 23 JUL 3:00P
STANDARD OVERNIGHT

TRK# 0201 7962 8879 8431

XX GRRA

49424
MI-US
GRR

518G1/AA04/83AB

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **23-Jul-13 10:00**

Work Order: **1307798** Received by: **DS**

Checklist completed by Ashley Beard eSignature 23-Jul-13 Date Reviewed by: Ann Preston eSignature 24-Jul-13 Date

Matrices: Soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	5.0 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/23/2013 10:54:39 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

30-Jul-2013

Herman Lucero
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Caerus Chevron 41-8D 13-199 7/22/13** Work Order: **1307799**

Dear Herman,

ALS Environmental received 3 samples on 23-Jul-2013 10:00 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.

Sample results are compliant with NELAP standard requirements and QC results achieved 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 14.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 30-Jul-13

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13
Work Order: **1307799**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1307799-01	BKGD 1	Soil		7/22/2013 13:45	7/23/2013 10:00	☐
1307799-02	BKGD 2	Soil		7/22/2013 13:35	7/23/2013 10:00	☐
1307799-03	BKGD 3	Soil		7/22/2013 13:30	7/23/2013 10:00	☐

ALS Group USA, Corp

Date: 30-Jul-13

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13
WorkOrder: **1307799**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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 is present at an estimated concentration between the MDL and Report 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

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: *30-Jul-13*

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13 **Work Order:** 1307799
Sample ID: BKGD 1 **Lab ID:** 1307799-01
Collection Date: 7/22/2013 01:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **ML**
Arsenic	**39**		**9.2**	**mg/Kg-dry**	5	7/27/2013 02:20 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **RH**
Calcium	**81**		**10**	**mg/L**	20	7/26/2013 03:49 PM
Magnesium	**28**		**4.0**	**mg/L**	20	7/26/2013 03:49 PM
Sodium	**120**		**4.0**	**mg/L**	20	7/26/2013 03:49 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **RH**
Sodium Adsorption Ratio	**2.8**		**0.010**	**none**	1	7/26/2013
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **JB**
Electrical Conductivity @ Saturation	**1.2**		**0.050**	**mmhos/cm @25**	10	7/25/2013 03:10 PM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**82**		**0.050**	**% of sample**	1	7/23/2013 12:40 PM
PH			**SW9045D**		Prep Date: **7/23/2013**	Analyst: **JB**
pH	**9.1**			**s.u.**	1	7/23/2013 11:00 AM

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

ALS Group USA, Corp

Date: *30-Jul-13*

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13 **Work Order:** 1307799
Sample ID: BKGD 2 **Lab ID:** 1307799-02
Collection Date: 7/22/2013 01:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **ML**
Arsenic	**8.3**		**2.0**	**mg/Kg-dry**	5	7/27/2013 02:44 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**7.3**		**0.050**	**% of sample**	1	7/23/2013

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

ALS Group USA, Corp

Date: *30-Jul-13*

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13
Work Order: 1307799
Sample ID: BKGD 3
Lab ID: 1307799-03
Collection Date: 7/22/2013 01:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **ML**
Arsenic	**8.6**		**1.8**	**mg/Kg-dry**	5	7/27/2013 02:50 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**5.2**		**0.050**	**% of sample**	1	7/23/2013

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

QC BATCH REPORT

Batch ID: **50013** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-50013-50013** Units: **mg/Kg** Analysis Date: **7/26/2013 02:01 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392468** Prep Date: **7/25/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.03916	0.25								J

LCS Sample ID: **LCS-50013-50013** Units: **mg/Kg** Analysis Date: **7/26/2013 02:07 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392469** Prep Date: **7/25/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.799	0.25	5	0	96	80-120	0			

MS Sample ID: **1307769-02BMS** Units: **mg/Kg** Analysis Date: **7/26/2013 02:19 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392471** Prep Date: **7/25/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.8	1.9	7.418	5.276	101	75-125	0			

MSD Sample ID: **1307769-02BMSD** Units: **mg/Kg** Analysis Date: **7/26/2013 02:25 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392472** Prep Date: **7/25/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.82	1.9	7.645	5.276	112	75-125	12.8	7.68	25	

The following samples were analyzed in this batch: 1307799-01A 1307799-02A 1307799-03A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **49915** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP Sample ID: **1307634-01B DUP** Units: **mmhos/cm @25°C** Analysis Date: **7/25/2013 03:10 PM**
Client ID: Run ID: **WETCHEM_130725J** SeqNo: **2390794** Prep Date: **7/25/2013** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.583	0.050	0	0	0		1.847	15.4	50	

The following samples were analyzed in this batch: 1307799-01B

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **49934** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-49934-49934** Units: **s.u.** Analysis Date: **7/23/2013 11:00 AM**
Client ID: Run ID: **WETCHEM_130723L** SeqNo: **2388161** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.53	0	4.4	0	103	90-110	0			

DUP Sample ID: **1307798-01B DUP** Units: **s.u.** Analysis Date: **7/23/2013 11:00 AM**
Client ID: Run ID: **WETCHEM_130723L** SeqNo: **2388163** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.13	0	0	0	0	0-0	9.13	0	20	

The following samples were analyzed in this batch: 1307799-01A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **R124049** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R124049** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388372** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS Sample ID: **LCS-R124049** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388371** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1307776-06A DUP** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388357** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	48.63	0.050	0	0	0	0-0	49.35	1.47	20	

DUP Sample ID: **1307798-01B DUP** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388365** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.99	0.050	0	0	0	0-0	20.28	1.44	20	

The following samples were analyzed in this batch: 1307799-01A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **R124058** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R124058** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388576** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS Sample ID: **LCS-R124058** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388574** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1307794-01B DUP** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388528** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.1	0.050	0	0	0	0-0	15.45	2.29	20	

DUP Sample ID: **1307801-04A DUP** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388551** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	32.26	0.050	0	0	0	0-0	31.81	1.4	20	

The following samples were analyzed in this batch: 1307799-02A 1307799-03A

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

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1307799

PAGE 1 of 1

PROJECT NAME	CAERUS CHEVRON 41-8D	SAMPLER	Casey Richardson	DATE	7-22-13
PROJECT No.	13-199	SITE ID		TURNAROUND	5 DAY
		EDD FORMAT		DISPOSAL	~~Return to Lab~~ or Return to Client
COMPANY NAME	HCSI	PURCHASE ORDER			
SEND REPORT TO	Herman Lucero	BILL TO COMPANY	PDC Energy		
ADDRESS	2385 F 1/2 Road	INVOICE ATTN TO	Ed Winters		
CITY / STATE / ZIP	Grand Junction, CO. 81505	ADDRESS	120 Railroad Ave. Suite D		
PHONE	970-243-3271	CITY / STATE / ZIP	Parachute, CO 81635		
FAX	970-243-3280	PHONE	970-285-9606		
E-MAIL	hlucero@hrlcomp.com	FAX			
		E-MAIL	ewinters@petd.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	SAR/ECL/pH	ARSENIC
1	BKGD 1	SOIL	7-22-13	1345	2	8		X	X
2	BKGD 2	SOIL	7-22-13	1335	1	8			X
3	BKGD 3	SOIL	7-22-13	1330	1	8			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: 5.0C

QC PACKAGE (check below)	
x	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	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Casey Richardson	7-22-13	1625
RECEIVED BY		Colby Koerner	7/22/13	1625
RELINQUISHED BY		Colby Koerner	7/22/13	1625
RECEIVED BY	Fed Ex			
RELINQUISHED BY				
RECEIVED BY		Diane F Shea	7/23/13	1000

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **23-Jul-13 10:00**

Work Order: **1307799** Received by: **DS**

Checklist completed by Diane Shaw eSignature 23-Jul-13 Date Reviewed by: Ann Preston eSignature 28-Jul-13 Date

Matrices: Soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	5.0 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/23/2013 10:56:26 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC

127 E First Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J13111302120326

Ship Date: 22JUL13
ActWgt: 80.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-072213-3
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070 BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

TUE - 23 JUL 3:00P
STANDARD OVERNIGHT

TRK# 0201 **7962 8879 8431**

XX GRRA

49424
MI-US
GRR

518G1/AA04/93AB

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