



23-Sep-2014

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Koch Expl Federal A-30-2-96-N 9.16.14**

Work Order: **1409878**

Dear Kris,

ALS Environmental received 8 samples on 18-Sep-2014 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.

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 36.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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Environmental 

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Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Work Order: 1409878

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>
1409878-01	BKGD01	Soil		9/16/2014 13:19	9/18/2014 09:30	<input type="checkbox"/>
1409878-02	BKGD02	Soil		9/16/2014 13:22	9/18/2014 09:30	<input type="checkbox"/>
1409878-03	BKGD03	Soil		9/16/2014 13:27	9/18/2014 09:30	<input type="checkbox"/>
1409878-04	Confirmation 10'	Soil		9/16/2014 13:03	9/18/2014 09:30	<input type="checkbox"/>
1409878-05	North Wall 5'	Soil		9/16/2014 01:06	9/18/2014 09:30	<input type="checkbox"/>
1409878-06	East Wall 5'	Soil		9/16/2014 13:10	9/18/2014 09:30	<input type="checkbox"/>
1409878-07	South Wall 5'	Soil		9/16/2014 13:13	9/18/2014 09:30	<input type="checkbox"/>
1409878-08	West Wall 5'	Soil		9/16/2014 13:16	9/18/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Work Order: 1409878

Case Narrative

Batch 62900 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 629401 MS/MSD data for GRO is not related to this project's samples. No data requires qualification.

Batch 62980 sample South Wall 5' MS/MSD recoveries for Hexavalent Chromium were below the lower control limit. The corresponding result in the parent sample may be biased low for Hexavalent Chromium.

<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 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

<u>Acronym</u>	<u>Description</u>
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
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% 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: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: BKGD01
Collection Date: 9/16/2014 01:19 PM

Work Order: 1409878
Lab ID: 1409878-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Calcium	110		5.0	mg/L	10	9/22/2014 11:33 AM
Magnesium	18		2.0	mg/L	10	9/22/2014 11:33 AM
Sodium	9.3		2.0	mg/L	10	9/22/2014 11:33 AM
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 9/18/14	Analyst: ML
Arsenic	5.7		2.0	mg/Kg-dry	5	9/18/2014 07:09 PM
SODIUM ADSORPTION RATIO			USDA H60 METHOD		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Sodium Adsorption Ratio	0.21		0.010	none	1	9/22/2014
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD		Prep: USDA Method 20B / 9/22/14	Analyst: JB
Electrical Conductivity @ Saturation	0.75		0.050	mmhos/cm @25	10	9/22/2014 03:15 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	3.7		0.050	% of sample	1	9/18/2014 03:30 PM
PH			SW9045D		Prep: EXTRACT / 9/18/14	Analyst: JB
pH	7.8			s.u.	1	9/19/2014 09:00 AM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: BKGD02
Collection Date: 9/16/2014 01:22 PM

Work Order: 1409878
Lab ID: 1409878-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 9/18/14	Analyst: ML
Arsenic	5.1		2.1	mg/Kg-dry	5	9/18/2014 07:15 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	5.0		0.050	% of sample	1	9/18/2014 03:30 PM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: BKGD03
Collection Date: 9/16/2014 01:27 PM

Work Order: 1409878
Lab ID: 1409878-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 9/18/14	Analyst: ML
Arsenic	4.1		1.9	mg/Kg-dry	5	9/18/2014 07:22 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	4.7		0.050	% of sample	1	9/18/2014 03:30 PM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: Confirmation 10'
Collection Date: 9/16/2014 01:03 PM

Work Order: 1409878
Lab ID: 1409878-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	ND		SW8015M 4.4	mg/Kg-dry	Prep: SW3541 / 9/18/14 1	Analyst: IT 9/19/2014 02:08 AM
Surr: 4-Terphenyl-d14	77.4		39-133	%REC	1	9/19/2014 02:08 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015 2.7	mg/Kg-dry	Prep: SW5035 / 9/18/14 1	Analyst: IT 9/19/2014 12:45 PM
Surr: Toluene-d8	101		50-150	%REC	1	9/19/2014 12:45 PM
MERCURY BY CVAA						
Mercury	0.018		SW7471 0.016	mg/Kg-dry	Prep: SW7471 / 9/18/14 1	Analyst: LR 9/18/2014 06:43 PM
SOLUBLE CATIONS FOR SAR						
Calcium	91		SW846 6010C 5.0	mg/L	Prep: USDA Method 20B / 9/22/14 10	Analyst: JEC 9/22/2014 12:02 PM
Magnesium	110		2.0	mg/L	10	9/22/2014 12:02 PM
Sodium	1,300		2.0	mg/L	10	9/22/2014 12:02 PM
METALS BY ICP-MS						
Arsenic	6.4		SW6020A 1.8	mg/Kg-dry	Prep: SW3050B / 9/18/14 5	Analyst: ML 9/18/2014 08:04 PM
Barium	250		1.8	mg/Kg-dry	5	9/18/2014 08:04 PM
Cadmium	ND		0.72	mg/Kg-dry	5	9/18/2014 08:04 PM
Chromium	9.5		1.8	mg/Kg-dry	5	9/18/2014 08:04 PM
Copper	12		1.8	mg/Kg-dry	5	9/18/2014 08:04 PM
Lead	9.9		1.8	mg/Kg-dry	5	9/18/2014 08:04 PM
Nickel	13		1.8	mg/Kg-dry	5	9/18/2014 08:04 PM
Selenium	ND		1.8	mg/Kg-dry	5	9/18/2014 08:04 PM
Silver	ND		1.8	mg/Kg-dry	5	9/18/2014 08:04 PM
Zinc	45		3.6	mg/Kg-dry	5	9/18/2014 08:04 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	22		USDA H60 METHOD 0.010	none	Prep: USDA Method 20B / 9/22/14 1	Analyst: JEC 9/22/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW846 8270D 7.1	µg/Kg-dry	Prep: SW3541 / 9/18/14 1	Analyst: RM 9/19/2014 03:52 PM
Acenaphthylene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Anthracene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Benzo(a)anthracene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Benzo(a)pyrene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Benzo(b)fluoranthene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Benzo(g,h,i)perylene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Benzo(k)fluoranthene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Chrysene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: Confirmation 10'
Collection Date: 9/16/2014 01:03 PM

Work Order: 1409878
Lab ID: 1409878-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Fluoranthene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Fluorene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Indeno(1,2,3-cd)pyrene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Naphthalene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Pyrene	ND		7.1	µg/Kg-dry	1	9/19/2014 03:52 PM
Surr: 2-Fluorobiphenyl	72.1		12-100	%REC	1	9/19/2014 03:52 PM
Surr: 4-Terphenyl-d14	83.9		25-137	%REC	1	9/19/2014 03:52 PM
Surr: Nitrobenzene-d5	69.4		37-107	%REC	1	9/19/2014 03:52 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 9/18/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	9/18/2014 06:00 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	9/18/2014 06:00 PM
m,p-Xylene	ND		66	µg/Kg-dry	1	9/18/2014 06:00 PM
o-Xylene	ND		33	µg/Kg-dry	1	9/18/2014 06:00 PM
Toluene	ND		33	µg/Kg-dry	1	9/18/2014 06:00 PM
Xylenes, Total	ND		99	µg/Kg-dry	1	9/18/2014 06:00 PM
Surr: 1,2-Dichloroethane-d4	97.6		70-130	%REC	1	9/18/2014 06:00 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	9/18/2014 06:00 PM
Surr: Dibromofluoromethane	96.8		70-130	%REC	1	9/18/2014 06:00 PM
Surr: Toluene-d8	91.0		70-130	%REC	1	9/18/2014 06:00 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/22/14		Analyst: JB
Electrical Conductivity @ Saturation	8.0		0.050	mmhos/cm @25	10	9/22/2014 03:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	9.3		0.55	mg/Kg-dry	1	9/22/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/19/14		Analyst: MB
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	9/19/2014 04:00 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	8.8		0.050	% of sample	1	9/18/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 9/18/14		Analyst: JB
pH	8.7			s.u.	1	9/19/2014 09:00 AM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: North Wall 5'
Collection Date: 9/16/2014 01:06 AM

Work Order: 1409878
Lab ID: 1409878-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	120		SW8015M		Prep: SW3541 / 9/18/14	Analyst: IT
Surr: 4-Terphenyl-d14	72.6		4.3	mg/Kg-dry	1	9/19/2014 02:36 AM
			39-133	%REC	1	9/19/2014 02:36 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 9/18/14	Analyst: IT
Surr: Toluene-d8	98.6		2.6	mg/Kg-dry	1	9/19/2014 01:10 AM
			50-150	%REC	1	9/19/2014 01:10 AM
MERCURY BY CVAA						
Mercury	0.019		SW7471		Prep: SW7471 / 9/18/14	Analyst: LR
			0.015	mg/Kg-dry	1	9/18/2014 06:46 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Calcium	31		5.0	mg/L	10	9/22/2014 12:07 PM
Magnesium	9.8		2.0	mg/L	10	9/22/2014 12:07 PM
Sodium	170		2.0	mg/L	10	9/22/2014 12:07 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 9/18/14	Analyst: ML
Arsenic	6.3		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Barium	210		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Cadmium	ND		0.78	mg/Kg-dry	5	9/18/2014 08:10 PM
Chromium	12		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Copper	14		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Lead	12		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Nickel	16		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Selenium	2.7		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Silver	ND		1.9	mg/Kg-dry	5	9/18/2014 08:10 PM
Zinc	55		3.9	mg/Kg-dry	5	9/18/2014 08:10 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Sodium Adsorption Ratio	6.8		0.010	none	1	9/22/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 9/18/14	Analyst: RM
Acenaphthene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Acenaphthylene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Anthracene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Benzo(a)anthracene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Benzo(a)pyrene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Benzo(b)fluoranthene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Benzo(g,h,i)perylene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Benzo(k)fluoranthene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Chrysene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: North Wall 5'
Collection Date: 9/16/2014 01:06 AM

Work Order: 1409878
Lab ID: 1409878-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Fluoranthene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Fluorene	13		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Indeno(1,2,3-cd)pyrene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Naphthalene	54		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Pyrene	ND		6.9	µg/Kg-dry	1	9/19/2014 04:13 PM
Surr: 2-Fluorobiphenyl	63.6		12-100	%REC	1	9/19/2014 04:13 PM
Surr: 4-Terphenyl-d14	72.8		25-137	%REC	1	9/19/2014 04:13 PM
Surr: Nitrobenzene-d5	62.3		37-107	%REC	1	9/19/2014 04:13 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 9/18/14		Analyst: AK
Benzene	ND		32	µg/Kg-dry	1	9/19/2014 08:42 AM
Ethylbenzene	ND		32	µg/Kg-dry	1	9/19/2014 08:42 AM
m,p-Xylene	84		63	µg/Kg-dry	1	9/19/2014 08:42 AM
o-Xylene	34		32	µg/Kg-dry	1	9/19/2014 08:42 AM
Toluene	ND		32	µg/Kg-dry	1	9/19/2014 08:42 AM
Xylenes, Total	120		95	µg/Kg-dry	1	9/19/2014 08:42 AM
Surr: 1,2-Dichloroethane-d4	93.7		70-130	%REC	1	9/19/2014 08:42 AM
Surr: 4-Bromofluorobenzene	97.2		70-130	%REC	1	9/19/2014 08:42 AM
Surr: Dibromofluoromethane	97.6		70-130	%REC	1	9/19/2014 08:42 AM
Surr: Toluene-d8	90.6		70-130	%REC	1	9/19/2014 08:42 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/22/14		Analyst: JB
Electrical Conductivity @ Saturation	0.96		0.050	mmhos/cm @25	10	9/22/2014 03:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	12		0.53	mg/Kg-dry	1	9/22/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/19/14		Analyst: MB
Chromium, Hexavalent	ND		0.52	mg/Kg-dry	1	9/19/2014 04:00 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	5.4		0.050	% of sample	1	9/18/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 9/18/14		Analyst: JB
pH	8.4			s.u.	1	9/19/2014 09:00 AM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: East Wall 5'
Collection Date: 9/16/2014 01:10 PM

Work Order: 1409878
Lab ID: 1409878-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 9/18/14	Analyst: IT
DRO (C10-C28)	ND		4.6	mg/Kg-dry	1	9/19/2014 03:03 AM
Surr: 4-Terphenyl-d14	75.8		39-133	%REC	1	9/19/2014 03:03 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 9/18/14	Analyst: IT
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	9/19/2014 02:01 AM
Surr: Toluene-d8	109		50-150	%REC	1	9/19/2014 02:01 AM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 9/18/14	Analyst: LR
Mercury	0.021		0.015	mg/Kg-dry	1	9/18/2014 06:48 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Calcium	330		5.0	mg/L	10	9/22/2014 03:52 PM
Magnesium	260		2.0	mg/L	10	9/22/2014 03:52 PM
Sodium	1,300		2.0	mg/L	10	9/22/2014 03:52 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 9/18/14	Analyst: ML
Arsenic	4.1		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Barium	330		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Cadmium	ND		0.83	mg/Kg-dry	5	9/18/2014 08:16 PM
Chromium	8.7		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Copper	10		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Lead	8.3		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Nickel	12		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Selenium	ND		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Silver	ND		2.1	mg/Kg-dry	5	9/18/2014 08:16 PM
Zinc	38		4.1	mg/Kg-dry	5	9/18/2014 08:16 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Sodium Adsorption Ratio	13		0.010	none	1	9/22/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 9/18/14	Analyst: RM
Acenaphthene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Acenaphthylene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Anthracene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Benzo(a)anthracene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Benzo(a)pyrene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Benzo(b)fluoranthene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Benzo(g,h,i)perylene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Benzo(k)fluoranthene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Chrysene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: East Wall 5'
Collection Date: 9/16/2014 01:10 PM

Work Order: 1409878
Lab ID: 1409878-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Fluoranthene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Fluorene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Indeno(1,2,3-cd)pyrene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Naphthalene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Pyrene	ND		7.4	µg/Kg-dry	1	9/19/2014 04:33 PM
Surr: 2-Fluorobiphenyl	67.7		12-100	%REC	1	9/19/2014 04:33 PM
Surr: 4-Terphenyl-d14	81.0		25-137	%REC	1	9/19/2014 04:33 PM
Surr: Nitrobenzene-d5	67.2		37-107	%REC	1	9/19/2014 04:33 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 9/18/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	9/18/2014 06:25 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	9/18/2014 06:25 PM
m,p-Xylene	ND		67	µg/Kg-dry	1	9/18/2014 06:25 PM
o-Xylene	ND		33	µg/Kg-dry	1	9/18/2014 06:25 PM
Toluene	ND		33	µg/Kg-dry	1	9/18/2014 06:25 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	9/18/2014 06:25 PM
Surr: 1,2-Dichloroethane-d4	96.8		70-130	%REC	1	9/18/2014 06:25 PM
Surr: 4-Bromofluorobenzene	93.0		70-130	%REC	1	9/18/2014 06:25 PM
Surr: Dibromofluoromethane	96.8		70-130	%REC	1	9/18/2014 06:25 PM
Surr: Toluene-d8	90.4		70-130	%REC	1	9/18/2014 06:25 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/22/14		Analyst: JB
Electrical Conductivity @ Saturation	10		0.050	mmhos/cm @25	10	9/22/2014 03:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	8.7		0.56	mg/Kg-dry	1	9/22/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/19/14		Analyst: MB
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	9/19/2014 04:00 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	10		0.050	% of sample	1	9/18/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 9/18/14		Analyst: JB
pH	8.1			s.u.	1	9/19/2014 09:00 AM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: South Wall 5'
Collection Date: 9/16/2014 01:13 PM

Work Order: 1409878
Lab ID: 1409878-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	8.5		SW8015M		Prep: SW3541 / 9/18/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	71.6		4.7	mg/Kg-dry	1	9/19/2014 03:30 AM
			39-133	%REC	1	9/19/2014 03:30 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 9/18/14	Analyst: IT
<i>Surr: Toluene-d8</i>	115		2.9	mg/Kg-dry	1	9/19/2014 02:26 AM
			50-150	%REC	1	9/19/2014 02:26 AM
MERCURY BY CVAA						
Mercury	0.021		SW7471		Prep: SW7471 / 9/18/14	Analyst: LR
			0.017	mg/Kg-dry	1	9/18/2014 06:50 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Calcium	24		5.0	mg/L	10	9/22/2014 03:57 PM
Magnesium	19		2.0	mg/L	10	9/22/2014 03:57 PM
Sodium	700		2.0	mg/L	10	9/22/2014 03:57 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 9/18/14	Analyst: ML
Arsenic	6.1		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Barium	240		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Cadmium	ND		0.84	mg/Kg-dry	5	9/18/2014 08:22 PM
Chromium	13		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Copper	15		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Lead	12		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Nickel	18		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Selenium	2.3		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Silver	ND		2.1	mg/Kg-dry	5	9/18/2014 08:22 PM
Zinc	54		4.2	mg/Kg-dry	5	9/18/2014 08:22 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Sodium Adsorption Ratio	26		0.010	none	1	9/22/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 9/18/14	Analyst: RM
Acenaphthene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Anthracene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Benzo(a)anthracene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Chrysene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: South Wall 5'
Collection Date: 9/16/2014 01:13 PM

Work Order: 1409878
Lab ID: 1409878-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Fluorene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Naphthalene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Pyrene	ND		7.5	µg/Kg-dry	1	9/19/2014 04:54 PM
Surr: 2-Fluorobiphenyl	63.7		12-100	%REC	1	9/19/2014 04:54 PM
Surr: 4-Terphenyl-d14	75.4		25-137	%REC	1	9/19/2014 04:54 PM
Surr: Nitrobenzene-d5	59.0		37-107	%REC	1	9/19/2014 04:54 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 9/18/14		Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	9/18/2014 06:50 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	9/18/2014 06:50 PM
m,p-Xylene	ND		70	µg/Kg-dry	1	9/18/2014 06:50 PM
o-Xylene	ND		35	µg/Kg-dry	1	9/18/2014 06:50 PM
Toluene	ND		35	µg/Kg-dry	1	9/18/2014 06:50 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	9/18/2014 06:50 PM
Surr: 1,2-Dichloroethane-d4	97.8		70-130	%REC	1	9/18/2014 06:50 PM
Surr: 4-Bromofluorobenzene	93.5		70-130	%REC	1	9/18/2014 06:50 PM
Surr: Dibromofluoromethane	98.9		70-130	%REC	1	9/18/2014 06:50 PM
Surr: Toluene-d8	88.6		70-130	%REC	1	9/18/2014 06:50 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/22/14		Analyst: JB
Electrical Conductivity @ Saturation	3.9		0.050	mmhos/cm @25	10	9/22/2014 03:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	13		0.58	mg/Kg-dry	1	9/22/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/19/14		Analyst: MB
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	9/19/2014 04:00 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	14		0.050	% of sample	1	9/18/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 9/18/14		Analyst: JB
pH	8.7			s.u.	1	9/19/2014 09:00 AM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: West Wall 5'
Collection Date: 9/16/2014 01:16 PM

Work Order: 1409878
Lab ID: 1409878-08
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	21		SW8015M		Prep: SW3541 / 9/18/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	68.6		4.5	mg/Kg-dry	1	9/19/2014 03:58 AM
			39-133	%REC	1	9/19/2014 03:58 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 9/18/14	Analyst: IT
<i>Surr: Toluene-d8</i>	109		2.8	mg/Kg-dry	1	9/19/2014 02:52 AM
			50-150	%REC	1	9/19/2014 02:52 AM
MERCURY BY CVAA						
Mercury	0.021		SW7471		Prep: SW7471 / 9/18/14	Analyst: LR
			0.016	mg/Kg-dry	1	9/18/2014 06:53 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Calcium	31		5.0	mg/L	10	9/22/2014 04:02 PM
Magnesium	20		2.0	mg/L	10	9/22/2014 04:02 PM
Sodium	540		2.0	mg/L	10	9/22/2014 04:02 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 9/18/14	Analyst: ML
Arsenic	6.0		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Barium	230		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Cadmium	ND		0.82	mg/Kg-dry	5	9/18/2014 08:29 PM
Chromium	11		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Copper	13		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Lead	12		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Nickel	16		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Selenium	2.5		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Silver	ND		2.0	mg/Kg-dry	5	9/18/2014 08:29 PM
Zinc	53		4.1	mg/Kg-dry	5	9/18/2014 08:29 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 9/22/14	Analyst: JEC
Sodium Adsorption Ratio	18		0.010	none	1	9/22/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 9/18/14	Analyst: RM
Acenaphthene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Acenaphthylene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Anthracene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Benzo(a)anthracene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Benzo(a)pyrene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Benzo(b)fluoranthene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Benzo(g,h,i)perylene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Benzo(k)fluoranthene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Chrysene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Project: Koch Expl Federal A-30-2-96-N 9.16.14
Sample ID: West Wall 5'
Collection Date: 9/16/2014 01:16 PM

Work Order: 1409878
Lab ID: 1409878-08
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Fluoranthene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Fluorene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Naphthalene	7.6		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Pyrene	ND		7.2	µg/Kg-dry	1	9/19/2014 05:14 PM
Surr: 2-Fluorobiphenyl	63.6		12-100	%REC	1	9/19/2014 05:14 PM
Surr: 4-Terphenyl-d14	81.0		25-137	%REC	1	9/19/2014 05:14 PM
Surr: Nitrobenzene-d5	61.9		37-107	%REC	1	9/19/2014 05:14 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 9/18/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	9/19/2014 09:07 AM
Ethylbenzene	ND		33	µg/Kg-dry	1	9/19/2014 09:07 AM
m,p-Xylene	ND		67	µg/Kg-dry	1	9/19/2014 09:07 AM
o-Xylene	ND		33	µg/Kg-dry	1	9/19/2014 09:07 AM
Toluene	ND		33	µg/Kg-dry	1	9/19/2014 09:07 AM
Xylenes, Total	ND		100	µg/Kg-dry	1	9/19/2014 09:07 AM
Surr: 1,2-Dichloroethane-d4	94.2		70-130	%REC	1	9/19/2014 09:07 AM
Surr: 4-Bromofluorobenzene	97.4		70-130	%REC	1	9/19/2014 09:07 AM
Surr: Dibromofluoromethane	96.9		70-130	%REC	1	9/19/2014 09:07 AM
Surr: Toluene-d8	88.4		70-130	%REC	1	9/19/2014 09:07 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/22/14		Analyst: JB
Electrical Conductivity @ Saturation	3.3		0.050	mmhos/cm @25	10	9/22/2014 03:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	11		0.55	mg/Kg-dry	1	9/22/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/19/14		Analyst: MB
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	9/19/2014 04:00 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	9.8		0.050	% of sample	1	9/18/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 9/18/14		Analyst: JB
pH	8.6			s.u.	1	9/19/2014 09:00 AM

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

ALS Group USA, Corp

Date: 23-Sep-14

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62901** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: DBLKS1-62901-62901				Units: mg/Kg		Analysis Date: 9/18/2014 06:47 PM		
Client ID:		Run ID: GC8_140918A				SeqNo: 2942820		Prep Date: 9/18/2014		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	1.59	0	2	0	79.5	39-133	0			

LCS		Sample ID: DLCSS1-62901-62901				Units: mg/Kg		Analysis Date: 9/18/2014 07:15 PM		
Client ID:		Run ID: GC8_140918A				SeqNo: 2942822		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	162.5	5.0	200	0	81.3	61-109	0			
Surr: 4-Terphenyl-d14	1.542	0	2	0	77.1	39-133	0			

MS		Sample ID: 1409642-01B MS				Units: mg/Kg		Analysis Date: 9/18/2014 07:43 PM		
Client ID:		Run ID: GC8_140918A				SeqNo: 2942824		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	253.1	8.1	325.9	6.942	75.5	48-110	0			
Surr: 4-Terphenyl-d14	2.38	0	3.259	0	73	39-133	0			

MSD		Sample ID: 1409642-01B MSD				Units: mg/Kg		Analysis Date: 9/18/2014 08:10 PM		
Client ID:		Run ID: GC8_140918A				SeqNo: 2942826		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	260.7	8.1	323.6	6.942	78.4	48-110	253.1	2.98	30	
Surr: 4-Terphenyl-d14	2.403	0	3.236	0	74.3	39-133	2.38	0.976	30	

The following samples were analyzed in this batch:

1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62940** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-62940-62940				Units: µg/Kg		Analysis Date: 9/19/2014 12:19 PM		
Client ID:		Run ID: GC9_140918A				SeqNo: 2942931		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5206	0	5000	0	104	50-150	0			

LCS		Sample ID: LCS-62940-62940				Units: µg/Kg		Analysis Date: 9/18/2014 11:53 PM		
Client ID:		Run ID: GC9_140918A				SeqNo: 2942920		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	427200	2,500	500000	0	85.4	70-130	0			
<i>Surr: Toluene-d8</i>	5006	0	5000	0	100	50-150	0			

MS		Sample ID: 1409876-04A MS				Units: µg/Kg		Analysis Date: 9/19/2014 01:38 PM		
Client ID:		Run ID: GC9_140919A				SeqNo: 2945594		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	419100	2,500	500000	0	83.8	70-130	0			
<i>Surr: Toluene-d8</i>	5828	0	5000	0	117	50-150	0			

MSD		Sample ID: 1409876-04A MSD				Units: µg/Kg		Analysis Date: 9/19/2014 02:04 PM		
Client ID:		Run ID: GC9_140919A				SeqNo: 2945597		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	569500	2,500	500000	0	114	70-130	419100	30.4	30	R
<i>Surr: Toluene-d8</i>	4370	0	5000	0	87.4	50-150	5828	28.6	30	

The following samples were analyzed in this batch:

1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62944** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-62944-62944				Units: mg/Kg		Analysis Date: 9/18/2014 05:43 PM		
Client ID:		Run ID: HG1_140918A				SeqNo: 2942059		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001833	0.020								J

LCS		Sample ID: LCS-62944-62944				Units: mg/Kg		Analysis Date: 9/18/2014 05:45 PM		
Client ID:		Run ID: HG1_140918A				SeqNo: 2942060		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1872	0.020	0.1665	0	112	80-120	0			

MS		Sample ID: 1409698-03BMS				Units: mg/Kg		Analysis Date: 9/18/2014 06:14 PM		
Client ID:		Run ID: HG1_140918A				SeqNo: 2942071		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1259	0.013	0.1054	0.01173	108	75-125	0			

MSD		Sample ID: 1409698-03BMSD				Units: mg/Kg		Analysis Date: 9/18/2014 06:16 PM		
Client ID:		Run ID: HG1_140918A				SeqNo: 2942072		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1272	0.013	0.1052	0.01173	110	75-125	0.1259	0.955	35	

The following samples were analyzed in this batch:

1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62942** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 1409878-01B DUP				Units: mg/L		Analysis Date: 9/22/2014 11:38 AM		
Client ID: BKGD01		Run ID: ICP2_140922A				SeqNo: 2946048		Prep Date: 9/22/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	108.8	5.0	0	0	0	0-0	0			
Magnesium	17.56	2.0	0	0	0	0-0	0			
Sodium	8.548	2.0	0	0	0	0-0	0			

The following samples were analyzed in this batch:

1409878-01B	1409878-04B	1409878-05A
1409878-06A	1409878-07A	1409878-08A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62938** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK				Sample ID: MBLK-62938-62938				Units:mg/Kg			Analysis Date: 9/18/2014 06:57 PM			
Client ID:				Run ID: ICPMS1_140918A				SeqNo:2942709			Prep Date: 9/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	ND	0.25												
Cadmium	ND	0.10												
Chromium	ND	0.25												
Copper	ND	0.25												
Lead	ND	0.25												
Nickel	ND	0.25												
Selenium	ND	0.25												
Silver	ND	0.25												
Zinc	0.1126	0.50								J				

LCS				Sample ID: LCS-62938-62938				Units:mg/Kg			Analysis Date: 9/18/2014 07:03 PM		
Client ID:			Run ID: ICPMS1_140918A			SeqNo:2942711		Prep Date: 9/18/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Arsenic	4.353	0.25	5	0	87.1	80-120	0						
Barium	4.589	0.25	5	0	91.8	80-120	0						
Cadmium	4.69	0.10	5	0	93.8	80-120	0						
Chromium	4.858	0.25	5	0	97.2	80-120	0						
Copper	4.63	0.25	5	0	92.6	80-120	0						
Lead	4.654	0.25	5	0	93.1	80-120	0						
Nickel	4.817	0.25	5	0	96.3	80-120	0						
Selenium	4.58	0.25	5	0	91.6	80-120	0						
Silver	4.672	0.25	5	0	93.4	80-120	0						
Zinc	4.643	0.50	5	0	92.9	80-120	0						

MS				Sample ID: 1409878-03AMS			Units:mg/Kg		Analysis Date: 9/18/2014 07:28 PM		
Client ID: BKGD03			Run ID: ICPMS1_140918A			SeqNo:2942715		Prep Date: 9/18/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.22	1.8	7.194	3.914	87.6	75-125	0				
Barium	127.3	1.8	7.194	112.1	212	75-125	0			SO	
Cadmium	7.291	0.72	7.194	0.3405	96.6	75-125	0				
Chromium	18.46	1.8	7.194	9.217	128	75-125	0			S	
Copper	16.6	1.8	7.194	10.29	87.7	75-125	0				
Lead	16.32	1.8	7.194	9.271	98	75-125	0				
Nickel	18.96	1.8	7.194	12.07	95.9	75-125	0				
Selenium	8.018	1.8	7.194	2.538	76.2	75-125	0				
Silver	6.41	1.8	7.194	0.02575	88.7	75-125	0				
Zinc	43.56	3.6	7.194	34.28	129	75-125	0			SO	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62938** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1409878-03AMSD				Units: mg/Kg		Analysis Date: 9/18/2014 07:52 PM		
Client ID: BKGD03		Run ID: ICPMS1_140918A				SeqNo: 2942719		Prep Date: 9/18/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.07	1.8	7.205	3.914	85.4	75-125	10.22	1.45	25	
Barium	127.2	1.8	7.205	112.1	209	75-125	127.3	0.139	25	SO
Cadmium	7.251	0.72	7.205	0.3405	95.9	75-125	7.291	0.549	25	
Chromium	17.72	1.8	7.205	9.217	118	75-125	18.46	4.07	25	
Copper	16.64	1.8	7.205	10.29	88	75-125	16.6	0.209	25	
Lead	16.24	1.8	7.205	9.271	96.8	75-125	16.32	0.497	25	
Nickel	19.37	1.8	7.205	12.07	101	75-125	18.96	2.1	25	
Selenium	6.981	1.8	7.205	2.538	61.7	75-125	8.018	13.8	25	S
Silver	6.513	1.8	7.205	0.02575	90	75-125	6.41	1.59	25	
Zinc	44.16	3.6	7.205	34.28	137	75-125	43.56	1.38	25	SO

The following samples were analyzed in this batch:

1409878-01A	1409878-02A	1409878-03A
1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62942** Instrument ID **SAR** Method: **USDA H60 Method**

DUP		Sample ID: 1409878-01B DUP				Units: none		Analysis Date: 9/22/2014		
Client ID: BKGD01		Run ID: SAR_140922A				SeqNo: 2946563		Prep Date: 9/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.2005	0.010	0	0	0		0.2142	6.57	50	

The following samples were analyzed in this batch:

1409878-01B	1409878-04B	1409878-05A
1409878-06A	1409878-07A	1409878-08A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62900** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-62900-62900				Units: µg/Kg		Analysis Date: 9/19/2014 10:58 AM		
Client ID:		Run ID: SVMS4_140919A				SeqNo: 2944294		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	6.333	6.7								J
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1011	0	1667	0	60.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1549	0	1667	0	93	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	667.3	0	1667	0	40	37-107	0			

LCS		Sample ID: SLCSS1-62900-62900				Units: µg/Kg		Analysis Date: 9/19/2014 11:23 AM		
Client ID:		Run ID: SVMS4_140919A				SeqNo: 2944470		Prep Date: 9/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	568.7	6.7	666.7	0	85.3	45-110	0			
Acenaphthylene	578	6.7	666.7	0	86.7	45-105	0			
Anthracene	686.3	6.7	666.7	0	103	55-105	0			
Benzo(a)anthracene	705.3	6.7	666.7	0	106	50-110	0			
Benzo(a)pyrene	674.7	6.7	666.7	0	101	50-110	0			
Benzo(b)fluoranthene	642	6.7	666.7	0	96.3	45-115	0			
Benzo(g,h,i)perylene	804	6.7	666.7	0	121	40-125	0			
Benzo(k)fluoranthene	655.3	6.7	666.7	0	98.3	45-115	0			
Chrysene	709.7	6.7	666.7	0	106	55-110	0			
Dibenzo(a,h)anthracene	811.7	6.7	666.7	0	122	40-125	0			
Fluoranthene	706.7	6.7	666.7	0	106	55-115	0			
Fluorene	684.7	6.7	666.7	0	103	50-110	0			
Indeno(1,2,3-cd)pyrene	778	6.7	666.7	0	117	40-120	0			
Naphthalene	536	6.7	666.7	0	80.4	40-105	0			
Pyrene	741	6.7	666.7	0	111	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1213	0	1667	0	72.8	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1667	0	1667	0	100	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	806.7	0	1667	0	48.4	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62900** Instrument ID **SVMS4** Method: **SW846 8270D**

MS				Sample ID: 1409642-04B MS			Units: µg/Kg		Analysis Date: 9/19/2014 12:36 PM	
Client ID:				Run ID: SVMS4_140919A			SeqNo: 2944296		Prep Date: 9/18/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1067	13	1292	0	82.6	45-110	0			
Acenaphthylene	1119	13	1292	0	86.6	45-105	0			
Anthracene	1381	13	1292	0	107	55-105	0			S
Benzo(a)anthracene	1292	13	1292	0	100	50-110	0			
Benzo(a)pyrene	1256	13	1292	0	97.2	50-110	0			
Benzo(b)fluoranthene	1178	13	1292	0	91.2	45-115	0			
Benzo(g,h,i)perylene	1455	13	1292	0	113	40-125	0			
Benzo(k)fluoranthene	1205	13	1292	0	93.2	45-115	0			
Chrysene	1440	13	1292	0	111	55-110	0			S
Dibenzo(a,h)anthracene	1450	13	1292	0	112	40-125	0			
Fluoranthene	1271	13	1292	0	98.3	55-115	0			
Fluorene	1315	13	1292	0	102	50-110	0			
Indeno(1,2,3-cd)pyrene	1614	13	1292	0	125	40-120	0			S
Naphthalene	1039	13	1292	0	80.4	40-105	0			
Pyrene	1294	13	1292	0	100	45-125	0			
Surr: 2-Fluorobiphenyl	2320	0	3230	0	71.8	12-100	0			
Surr: 4-Terphenyl-d14	2931	0	3230	0	90.8	25-137	0			
Surr: Nitrobenzene-d5	1508	0	3230	0	46.7	37-107	0			

MSD				Sample ID: 1409642-04B MSD			Units: µg/Kg		Analysis Date: 9/19/2014 01:01 PM	
Client ID:				Run ID: SVMS4_140919A			SeqNo: 2944297		Prep Date: 9/18/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1052	13	1309	0	80.4	45-110	1067	1.38	30	
Acenaphthylene	1095	13	1309	0	83.6	45-105	1119	2.2	30	
Anthracene	1325	13	1309	0	101	55-105	1381	4.11	30	
Benzo(a)anthracene	1274	13	1309	0	97.3	50-110	1292	1.37	30	
Benzo(a)pyrene	1230	13	1309	0	93.9	50-110	1256	2.13	30	
Benzo(b)fluoranthene	1176	13	1309	0	89.8	45-115	1178	0.227	30	
Benzo(g,h,i)perylene	1389	13	1309	0	106	40-125	1455	4.67	30	
Benzo(k)fluoranthene	1229	13	1309	0	93.9	45-115	1205	2.01	30	
Chrysene	1434	13	1309	0	110	55-110	1440	0.4	30	
Dibenzo(a,h)anthracene	1403	13	1309	0	107	40-125	1450	3.33	30	
Fluoranthene	1248	13	1309	0	95.3	55-115	1271	1.78	30	
Fluorene	1196	13	1309	0	91.4	50-110	1315	9.45	30	
Indeno(1,2,3-cd)pyrene	1508	13	1309	0	115	40-120	1614	6.76	30	
Naphthalene	1076	13	1309	0	82.2	40-105	1039	3.53	30	
Pyrene	1260	13	1309	0	96.2	45-125	1294	2.65	30	
Surr: 2-Fluorobiphenyl	2318	0	3273	0	70.8	12-100	2320	0.054	40	
Surr: 4-Terphenyl-d14	2837	0	3273	0	86.7	25-137	2931	3.28	40	
Surr: Nitrobenzene-d5	1537	0	3273	0	47	37-107	1508	1.92	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62900** Instrument ID **SVMS4** Method: **SW846 8270D**

The following samples were analyzed in this batch:

1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62941** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-62941-62941				Units: µg/Kg			Analysis Date: 9/18/2014 05:36 PM		
Client ID:			Run ID: VMS8_140918A				SeqNo: 2942528			Prep Date: 9/18/2014		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	954	0	1000	0	95.4	70-130		0					
Surr: 4-Bromofluorobenzene	965	0	1000	0	96.5	70-130		0					
Surr: Dibromofluoromethane	967	0	1000	0	96.7	70-130		0					
Surr: Toluene-d8	882.5	0	1000	0	88.2	70-130		0					

LCS				Sample ID: LCS-62941-62941			Units: µg/Kg		Analysis Date: 9/18/2014 03:08 PM		
Client ID:		Run ID: VMS8_140918A			SeqNo:2942525		Prep Date: 9/18/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	942	30	1000	0	94.2	75-125	0				
Ethylbenzene	996	30	1000	0	99.6	75-125	0				
m,p-Xylene	1958	60	2000	0	97.9	80-125	0				
o-Xylene	997	30	1000	0	99.7	75-125	0				
Toluene	930.5	30	1000	0	93	70-125	0				
Xylenes, Total	2956	90	3000	0	98.5	75-125	0				
Surr: 1,2-Dichloroethane-d4	978.5	0	1000	0	97.8	70-130	0				
Surr: 4-Bromofluorobenzene	969.5	0	1000	0	97	70-130	0				
Surr: Dibromofluoromethane	1038	0	1000	0	104	70-130	0				
Surr: Toluene-d8	927.5	0	1000	0	92.8	70-130	0				

MS					Sample ID: 1409878-07A MS		Units: µg/Kg		Analysis Date: 9/19/2014 12:58 PM		
Client ID: South Wall 5'			Run ID: VMS8_140918A			SeqNo:2942547		Prep Date: 9/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	948.5	30	1000	0	94.8	75-125	0				
Ethylbenzene	977.5	30	1000	0	97.8	75-125	0				
m,p-Xylene	1995	60	2000	19	98.8	80-125	0				
o-Xylene	980	30	1000	0	98	75-125	0				
Toluene	905.5	30	1000	0	90.6	70-125	0				
Xylenes, Total	2975	90	3000	0	99.2	75-125	0				
Surr: 1,2-Dichloroethane-d4	946.5	0	1000	0	94.6	70-130	0				
Surr: 4-Bromofluorobenzene	1016	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	979.5	0	1000	0	98	70-130	0				
Surr: Toluene-d8	929	0	1000	0	92.9	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62941** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 1409878-07A MSD			Units: µg/Kg		Analysis Date: 9/19/2014 01:23 AM	
Client ID: South Wall 5'				Run ID: VMS8_140918A			SeqNo: 2942544		Prep Date: 9/18/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	914.5	30	1000	0	91.4	75-125	948.5	3.65	30	
Ethylbenzene	929	30	1000	0	92.9	75-125	977.5	5.09	30	
m,p-Xylene	1940	60	2000	19	96	80-125	1995	2.8	30	
o-Xylene	946	30	1000	0	94.6	75-125	980	3.53	30	
Toluene	863.5	30	1000	0	86.4	70-125	905.5	4.75	30	
Xylenes, Total	2886	90	3000	0	96.2	75-125	2975	3.04	30	
Surr: 1,2-Dichloroethane-d4	963.5	0	1000	0	96.4	70-130	946.5	1.78	30	
Surr: 4-Bromofluorobenzene	1012	0	1000	0	101	70-130	1016	0.345	30	
Surr: Dibromofluoromethane	1019	0	1000	0	102	70-130	979.5	3.95	30	
Surr: Toluene-d8	899	0	1000	0	89.9	70-130	929	3.28	30	

The following samples were analyzed in this batch:

1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62942** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 1409878-01B DUP				Units: mmhos/cm @25°C		Analysis Date: 9/22/2014 03:15 PM		
Client ID: BKGD01		Run ID: WETCHEM_140922M				SeqNo: 2946586		Prep Date: 9/22/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.745	0.050	0	0	0		0.749	0.535	50	

The following samples were analyzed in this batch:

1409878-01B	1409878-04B	1409878-05A
1409878-06A	1409878-07A	1409878-08A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62950** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-62950-62950					Units:s.u.			Analysis Date: 9/19/2014 09:00 AM				
Client ID:					Run ID: WETCHEM_140919B					SeqNo:2942753			Prep Date: 9/18/2014			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					3.98		0	4	0	99.5		90-110	0				

DUP					Sample ID: 1409897-01B DUP					Units:s.u.			Analysis Date: 9/19/2014 09:00 AM		
Client ID:				Run ID: WETCHEM_140919B				SeqNo:2942769			Prep Date: 9/18/2014			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH		7.71	0	0	0	0	0-0	7.77	0.775	20					

Sample ID: 1409878-07A DUP					Units: s.u.		Analysis Date: 9/19/2014 09:00 AM			
Client ID: South Wall 5'			Run ID: WETCHEM_140919B		SeqNo: 2942792		Prep Date: 9/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.9	0	0	0	0	0-0	8.73	1.93	20	

The following samples were analyzed in this batch:

1409878-01A	1409878-04A	1409878-05A
1409878-06A	1409878-07A	1409878-08A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **62980** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-62980-62980				Units: mg/Kg		Analysis Date: 9/19/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140919P				SeqNo: 2944345		Prep Date: 9/19/2014		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-62980-62980				Units: mg/Kg		Analysis Date: 9/19/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140919P				SeqNo: 2944344		Prep Date: 9/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.72 0.50 2 0 86 80-120 0

MS		Sample ID: 1409878-07A MS				Units: mg/Kg		Analysis Date: 9/19/2014 04:00 PM		
Client ID: South Wall 5'		Run ID: WETCHEM_140919P				SeqNo: 2944333		Prep Date: 9/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.304 0.49 1.976 0.06375 62.8 75-125 0 S

MS		Sample ID: 1409878-07A MSI				Units: mg/Kg		Analysis Date: 9/19/2014 04:00 PM		
Client ID: South Wall 5'		Run ID: WETCHEM_140919P				SeqNo: 2944335		Prep Date: 9/19/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 978.3 49 992.1 0.06375 98.6 75-125 0

MSD		Sample ID: 1409878-07A MSD				Units: mg/Kg		Analysis Date: 9/19/2014 04:00 PM		
Client ID: South Wall 5'		Run ID: WETCHEM_140919P				SeqNo: 2944334		Prep Date: 9/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.46 0.50 1.984 0.06375 70.4 75-125 1.304 11.3 20 S

The following samples were analyzed in this batch:

1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409878
Project: Koch Expl Federal A-30-2-96-N 9.16.14

QC BATCH REPORT

Batch ID: **R148487** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R148487				Units: % of sample		Analysis Date: 9/18/2014 03:30 PM		
Client ID:		Run ID: MOIST_140918C				SeqNo: 2942969		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-R148487				Units: % of sample		Analysis Date: 9/18/2014 03:30 PM		
Client ID:		Run ID: MOIST_140918C				SeqNo: 2942967		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: 1409878-01A DUP				Units: % of sample		Analysis Date: 9/18/2014 03:30 PM		
Client ID: BKGD01		Run ID: MOIST_140918C				SeqNo: 2942951		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 3.61 0.050 0 0 0 0-0 3.68 1.92 20

DUP		Sample ID: 1409886-03A DUP				Units: % of sample		Analysis Date: 9/18/2014 03:30 PM		
Client ID:		Run ID: MOIST_140918C				SeqNo: 2942963		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 17.37 0.050 0 0 0 0-0 17.29 0.462 20

The following samples were analyzed in this batch:

1409878-01A	1409878-02A	1409878-03A
1409878-04A	1409878-05A	1409878-06A
1409878-07A	1409878-08A	

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



ALS Environmental

3352 128th Avenue Holland, MI 49424
PH: (616) 309-6070

Chain-of-Custody

WORKORDER #

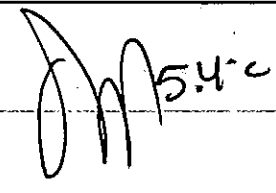
1409878


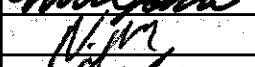
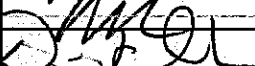
Form 2002a

PROJECT NAME		Koch Expl. Federal #A-30-2-96-N		SAMPLER		Mike Lobato		DATE		9/16/14		PAGE		1 of 1			
PROJECT No.				SITE ID		Federal #A-30-2-96-N		TURNAROUND		5-DAY 2 Day		DISPOSAL		By Lab or Return to Client			
COMPANY NAME		HRL Compliance Solutions, Inc.		EDD FORMAT		COGCC, CSEV		COGCC Table 910-1 (complete)		SAR		EC		PH		ARSENIC	
SEND REPORT TO		Kris Rowe		PURCHASE ORDER													
ADDRESS		2385 F 1/2 Road		BILL TO COMPANY		HRL Compliance Solutions, Inc.											
CITY / STATE / ZIP		Grand Junction, CO 81505		INVOICE ATTN TO		Kris Rowe											
PHONE		970-243-3271		ADDRESS		2385 F 1/2 Road											
FAX		970-243-3280		CITY / STATE / ZIP		Grand Junction, CO 81505		PHONE		970-243-3271							
E-MAIL		krowe@hrlcomp.com		FAX		970-243-3280		E-MAIL		krowe@hrlcomp.com							
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC										
1	BKGD01	Soil	9/16/14	1319	2	8			X	X	X	X					
2	BKGD02	Soil	9/16/14	1322	1	8						X					
3	BKGD03	Soil	9/16/14	1327	1	8						X					
4	Confirmation 10'	Soil	9/16/14	1303	2	8		X									
5	North Well 5'			1306	1	8		X									
6	East Well 5'			1310	1	8		X									
7	South Well 5'			1313	1	8		X									
8	West Well 5'			1316	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:		QC PACKAGE (check below)	
		X	LEVEL II (Standard QC)
			LEVEL III (Std QC + forms)
			LEVEL IV (Std QC + forms + raw data)

SIGNATURE	PRINTED NAME	DATE	TIME
	Mike Lobato	9/16/14	1515
	N.M.	9/16/14	1515
	Diane F. Shen	9/18/14	0930
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **18-Sep-14 09:30**

Work Order: **1409878**

Received by: **DS**

Checklist completed by <u>Diane Shaw</u>	18-Sep-14	Reviewed by: <u>Ann Preston</u>	18-Sep-14
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>9/18/2014 2:03:38 PM</u>		
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:

From: (314) 300-0070
 Mark Mordant
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81835

Origin ID: RILA



Ship Date: 16SEP14
 Weight: 55.9 LB
 CAD: 2204840N1ET3350

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



Ref # 091014-1
 Invoice #
 PO # Parachute
 Dept #

SHIP TO: (314) 300-0070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE
 HOLLAND, MI 49424

BILL RENDER

2 of 4

WED - 17 SEP 10:30A
 PRIORITY OVERNIGHT

NP# 7711 7906 2380

Matr# 7711 7906 2132

E291

49424

MI-128

GRR

XX HLMA

5220UC0548AC3

After printing this label:

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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.

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