



08-May-2013

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

Re: **Koch Exploration Fed A-4 Treatment Cell 4/29/13**

Work Order: **1305016**

Dear Kris,

ALS Environmental received 2 samples on 30-Apr-2013 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 27.

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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Client: HRL Compliance Solutions
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13
Work Order: 1305016

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>
1305016-01	East Half	Soil		4/29/2013 12:00	4/30/2013 09:30	<input type="checkbox"/>
1305016-02	West Half	Soil		4/29/2013 11:30	4/30/2013 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13
Work Order: 1305016

Case Narrative

Batch 48106 samples 1305016-01 and 1305016-02 DRO surrogate recoveries were above the upper control limits. The sample results may be biased high due to matrix interference. Sample East Half MS/MSD recoveries for the DRO surrogate were above control limits. The DRO results in the parent sample may be biased high due to matrix interference.

Batch 48124 sample West Half MS/MSD recoveries for Chromium were above control limits. The corresponding result for Chromium in the parent sample may be biased high. The MS/MSD recoveries for Barium and Zinc were outside control limits. The amount of Barium and Zinc in the parent sample were greater than 4x the spiked amount. No data requires qualification for Barium or Zinc.

Batch 48159 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13
WorkOrder: 1305016

QUALIFIERS, ACRONYMS, UNITS

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

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
TDL	Target Detection Limit
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
mmhos/cm @25°F	Microhms-Centimeter at 25 Degrees Fahrenheit
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 08-May-13

Client: HRL Compliance Solutions

Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

Work Order: 1305016

Sample ID: East Half

Lab ID: 1305016-01

Collection Date: 4/29/2013 12:00 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	390		SW8015M		Prep Date: 5/2/2013	Analyst: CW
			4.9	mg/Kg-dry	1	5/2/2013 07:19 PM
Surr: 4-Terphenyl-d14	265	S	39-115	%REC	1	5/2/2013 07:19 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015			Analyst: JD
			3.0	mg/Kg-dry	50	5/3/2013 02:04 PM
Surr: Toluene-d8	110		50-150	%REC	50	5/3/2013 02:04 PM
MERCURY BY CVAA						
Mercury	0.022		SW7471		Prep Date: 5/2/2013	Analyst: LR
			0.017	mg/Kg-dry	1	5/3/2013 02:37 PM
METALS BY ICP-MS						
Arsenic	6.8		SW6020A		Prep Date: 5/2/2013	Analyst: ML
			2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Barium	470		2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Cadmium	ND		0.81	mg/Kg-dry	5	5/4/2013 03:12 AM
Chromium	13		2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Copper	13		2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Lead	13		2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Nickel	16		2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Selenium	ND		2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Silver	ND		2.0	mg/Kg-dry	5	5/4/2013 03:12 AM
Zinc	60		4.0	mg/Kg-dry	5	5/4/2013 03:12 AM
SOLUBLE CATIONS FOR SAR						
Calcium	240		SW6020A		Prep Date: 5/1/2013	Analyst: RH
			12	mg/L-dry	20	5/4/2013 05:30 AM
Magnesium	97		4.8	mg/L-dry	20	5/4/2013 05:30 AM
Sodium	3,300		4.8	mg/L-dry	20	5/4/2013 05:30 AM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	42		USDA H60 METHO		Prep Date: 5/1/2013	Analyst: KK
			0.010	none	1	5/6/2013
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW8270		Prep Date: 5/2/2013	Analyst: HL
			18	µg/Kg-dry	1	5/3/2013 04:04 PM
Acenaphthylene	ND		35	µg/Kg-dry	1	5/3/2013 04:04 PM
Anthracene	ND		18	µg/Kg-dry	1	5/3/2013 04:04 PM
Benzo(a)anthracene	ND		20	µg/Kg-dry	1	5/3/2013 04:04 PM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	5/3/2013 04:04 PM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	5/3/2013 04:04 PM
Benzo(g,h,i)perylene	ND		33	µg/Kg-dry	1	5/3/2013 04:04 PM
Benzo(k)fluoranthene	ND		21	µg/Kg-dry	1	5/3/2013 04:04 PM
Chrysene	ND		18	µg/Kg-dry	1	5/3/2013 04:04 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	5/3/2013 04:04 PM
Fluoranthene	ND		18	µg/Kg-dry	1	5/3/2013 04:04 PM

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

ALS Group USA, Corp

Date: 08-May-13

Client: HRL Compliance Solutions

Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

Work Order: 1305016

Sample ID: East Half

Lab ID: 1305016-01

Collection Date: 4/29/2013 12:00 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	68		18	µg/Kg-dry	1	5/3/2013 04:04 PM
Indeno(1,2,3-cd)pyrene	ND		23	µg/Kg-dry	1	5/3/2013 04:04 PM
Naphthalene	ND		18	µg/Kg-dry	1	5/3/2013 04:04 PM
Pyrene	ND		18	µg/Kg-dry	1	5/3/2013 04:04 PM
Surr: 2-Fluorobiphenyl	71.5		12-100	%REC	1	5/3/2013 04:04 PM
Surr: 4-Terphenyl-d14	105		25-137	%REC	1	5/3/2013 04:04 PM
Surr: Nitrobenzene-d5	63.6		37-107	%REC	1	5/3/2013 04:04 PM
VOLATILE ORGANIC COMPOUNDS			SW8260		Prep Date: 5/2/2013	Analyst: BG
Benzene	ND		36	µg/Kg-dry	1	5/5/2013 09:48 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	5/5/2013 09:48 AM
m,p-Xylene	ND		71	µg/Kg-dry	1	5/5/2013 09:48 AM
o-Xylene	ND		36	µg/Kg-dry	1	5/5/2013 09:48 AM
Toluene	ND		36	µg/Kg-dry	1	5/5/2013 09:48 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	5/5/2013 09:48 AM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	5/5/2013 09:48 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	5/5/2013 09:48 AM
Surr: Dibromofluoromethane	98.2		70-130	%REC	1	5/5/2013 09:48 AM
Surr: Toluene-d8	97.8		70-130	%REC	1	5/5/2013 09:48 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep Date: 5/1/2013	Analyst: JB
Electrical Conductivity @ Saturation	15		0.050	mmhos/cm @25	10	5/3/2013 03:30 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	13		0.59	mg/Kg-dry	1	5/7/2013 08:40 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep Date: 5/3/2013	Analyst: MB
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	5/6/2013 11:00 AM
MOISTURE			A2540 G			Analyst: BAS
Moisture	16		0.050	% of sample	1	5/1/2013 02:00 PM
PH			SW9045D			Analyst: KF
pH	9.4			s.u.	1	5/1/2013 09:00 AM

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

ALS Group USA, Corp

Date: 08-May-13

Client: HRL Compliance Solutions

Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

Work Order: 1305016

Sample ID: West Half

Lab ID: 1305016-02

Collection Date: 4/29/2013 11:30 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	480		SW8015M		Prep Date: 5/2/2013	Analyst: CW
			4.9	mg/Kg-dry	1	5/3/2013 12:55 PM
Surr: 4-Terphenyl-d14	345	S	39-115	%REC	1	5/3/2013 12:55 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep Date: 5/2/2013	Analyst: JD
			3.0	mg/Kg-dry	50	5/3/2013 01:39 PM
Surr: Toluene-d8	108		50-150	%REC	50	5/3/2013 01:39 PM
MERCURY BY CVAA						
Mercury	0.020		SW7471		Prep Date: 5/2/2013	Analyst: LR
			0.018	mg/Kg-dry	1	5/3/2013 02:39 PM
METALS BY ICP-MS						
Arsenic	5.3		SW6020A		Prep Date: 5/2/2013	Analyst: ML
			2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Barium	500		2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Cadmium	ND		0.87	mg/Kg-dry	5	5/3/2013 08:38 AM
Chromium	13		2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Copper	13		2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Lead	12		2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Nickel	15		2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Selenium	ND		2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Silver	ND		2.2	mg/Kg-dry	5	5/3/2013 08:38 AM
Zinc	53		4.4	mg/Kg-dry	5	5/3/2013 08:38 AM
SOLUBLE CATIONS FOR SAR						
Calcium	130		SW6020A		Prep Date: 5/1/2013	Analyst: RH
			12	mg/L-dry	20	5/4/2013 05:36 AM
Magnesium	46		4.8	mg/L-dry	20	5/4/2013 05:36 AM
Sodium	2,300		4.8	mg/L-dry	20	5/4/2013 05:36 AM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	41		USDA H60 METHO		Prep Date: 5/1/2013	Analyst: KK
			0.010	none	1	5/6/2013
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW8270		Prep Date: 5/2/2013	Analyst: HL
			18	µg/Kg-dry	1	5/3/2013 04:36 PM
Acenaphthylene	ND		35	µg/Kg-dry	1	5/3/2013 04:36 PM
Anthracene	ND		18	µg/Kg-dry	1	5/3/2013 04:36 PM
Benzo(a)anthracene	ND		20	µg/Kg-dry	1	5/3/2013 04:36 PM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	5/3/2013 04:36 PM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	5/3/2013 04:36 PM
Benzo(g,h,i)perylene	ND		33	µg/Kg-dry	1	5/3/2013 04:36 PM
Benzo(k)fluoranthene	ND		21	µg/Kg-dry	1	5/3/2013 04:36 PM
Chrysene	ND		18	µg/Kg-dry	1	5/3/2013 04:36 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	5/3/2013 04:36 PM
Fluoranthene	ND		18	µg/Kg-dry	1	5/3/2013 04:36 PM

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

ALS Group USA, Corp

Date: 08-May-13

Client: HRL Compliance Solutions

Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

Work Order: 1305016

Sample ID: West Half

Lab ID: 1305016-02

Collection Date: 4/29/2013 11:30 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	45		18	µg/Kg-dry	1	5/3/2013 04:36 PM
Indeno(1,2,3-cd)pyrene	ND		24	µg/Kg-dry	1	5/3/2013 04:36 PM
Naphthalene	ND		18	µg/Kg-dry	1	5/3/2013 04:36 PM
Pyrene	ND		18	µg/Kg-dry	1	5/3/2013 04:36 PM
Surr: 2-Fluorobiphenyl	72.3		12-100	%REC	1	5/3/2013 04:36 PM
Surr: 4-Terphenyl-d14	108		25-137	%REC	1	5/3/2013 04:36 PM
Surr: Nitrobenzene-d5	62.8		37-107	%REC	1	5/3/2013 04:36 PM
VOLATILE ORGANIC COMPOUNDS			SW8260		Prep Date: 5/2/2013	Analyst: BG
Benzene	ND		36	µg/Kg-dry	1	5/5/2013 10:11 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	5/5/2013 10:11 AM
m,p-Xylene	110		72	µg/Kg-dry	1	5/5/2013 10:11 AM
o-Xylene	45		36	µg/Kg-dry	1	5/5/2013 10:11 AM
Toluene	ND		36	µg/Kg-dry	1	5/5/2013 10:11 AM
Xylenes, Total	150		110	µg/Kg-dry	1	5/5/2013 10:11 AM
Surr: 1,2-Dichloroethane-d4	99.2		70-130	%REC	1	5/5/2013 10:11 AM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	5/5/2013 10:11 AM
Surr: Dibromofluoromethane	95.7		70-130	%REC	1	5/5/2013 10:11 AM
Surr: Toluene-d8	100		70-130	%REC	1	5/5/2013 10:11 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep Date: 5/1/2013	Analyst: JB
Electrical Conductivity @ Saturation	11		0.050	mmhos/cm @25	10	5/3/2013 03:30 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	13		0.60	mg/Kg-dry	1	5/7/2013 08:40 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep Date: 5/3/2013	Analyst: MB
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	5/6/2013 11:00 AM
MOISTURE			A2540 G			Analyst: BAS
Moisture	17		0.050	% of sample	1	5/1/2013 02:00 PM
PH			SW9045D			Analyst: KF
pH	9.6			s.u.	1	5/1/2013 09:00 AM

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

Client: HRL Compliance Solutions

QC BATCH REPORT

Work Order: 1305016

Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

Batch ID: 48106

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-48106-48106				Units: mg/Kg		Analysis Date: 5/2/2013 05:17 PM		
Client ID:		Run ID: GC8_130502B				SeqNo: 2303860		Prep Date: 5/2/2013		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								
Surr: 4-Terphenyl-d14	1.064	0	1.667	0	63.8	39-115	0			

LCS		Sample ID: DLCSS1-48106-48106				Units: mg/Kg		Analysis Date: 5/2/2013 05:47 PM		
Client ID:		Run ID: GC8_130502B				SeqNo: 2303861		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	137.6	4.2	166.7	0	82.6	49-124	0			
Surr: 4-Terphenyl-d14	1.038	0	1.667	0	62.3	39-115	0			

MS		Sample ID: 1305016-01B MS				Units: mg/Kg		Analysis Date: 5/2/2013 06:18 PM		
Client ID: East Half		Run ID: GC8_130502B				SeqNo: 2303862		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	681.5	8.0	318.9	324.2	112	49-130	0			
Surr: 4-Terphenyl-d14	6.633	0	3.189	0	208	39-115	0			S

MSD		Sample ID: 1305016-01B MSD				Units: mg/Kg		Analysis Date: 5/2/2013 06:49 PM		
Client ID: East Half		Run ID: GC8_130502B				SeqNo: 2303863		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	634.7	8.2	327.2	324.2	94.9	49-130	681.5	7.11	30	
Surr: 4-Terphenyl-d14	5.908	0	3.272	0	181	39-115	6.633	11.6	30	S

The following samples were analyzed in this batch: | 1305016-01B | 1305016-02B |

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **R120128** Instrument ID: **GC10** Method: **SW8015**

MBLK		Sample ID: GBLK1-130503-R120128				Units: µg/L		Analysis Date: 5/3/2013 10:46 AM		
Client ID:		Run ID: GC10_130503A				SeqNo: 2304576		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	110	0	100	0	110	70-130	0			

LCS		Sample ID: GLCS1-130503-R120128				Units: µg/L		Analysis Date: 5/3/2013 10:21 AM		
Client ID:		Run ID: GC10_130503A				SeqNo: 2304575		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)	8727	200	10000	0	87.3	70-130	0			
Surr: Toluene-d8	119	0	100	0	119	70-130	0			

MS		Sample ID: 1305035-03A MS				Units: µg/Kg		Analysis Date: 5/3/2013 07:30 PM		
Client ID:		Run ID: GC10_130503A				SeqNo: 2304599		Prep Date:		DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	413100	2,500	500000	0	82.6	70-130	0			
Surr: Toluene-d8	5427	0	5000	0	109	50-150	0			

MSD		Sample ID: 1305035-03A MSD				Units: µg/Kg		Analysis Date: 5/3/2013 07:55 PM		
Client ID:		Run ID: GC10_130503A				SeqNo: 2304600		Prep Date:		DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	384600	2,500	500000	0	76.9	70-130	413100	7.15	30	
Surr: Toluene-d8	5337	0	5000	0	107	50-150	5427	1.67	30	

The following samples were analyzed in this batch:

1305016-01A 1305016-02A

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48122** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-48122-48122				Units: mg/Kg		Analysis Date: 5/3/2013 02:10 PM		
Client ID:		Run ID: HG1_130503A				SeqNo: 2303644		Prep Date: 5/2/2013		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-48122-48122				Units: mg/Kg		Analysis Date: 5/3/2013 02:12 PM		
Client ID:		Run ID: HG1_130503A				SeqNo: 2303645		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1729	0.020	0.1665	0	104	80-120	0			

MS		Sample ID: 1305016-02BMS				Units: mg/Kg		Analysis Date: 5/3/2013 02:41 PM		
Client ID: West Half		Run ID: HG1_130503A				SeqNo: 2303659		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1175	0.013	0.1092	0.01669	92.3	75-125	0			

MSD		Sample ID: 1305016-02BMSD				Units: mg/Kg		Analysis Date: 5/3/2013 02:43 PM		
Client ID: West Half		Run ID: HG1_130503A				SeqNo: 2303660		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.129	0.015	0.125	0.01669	89.8	75-125	0.1175	9.32	35	

The following samples were analyzed in this batch:

1305016-01B	1305016-02B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48103** Instrument ID **ICPMS2** Method: **SW6020A** **(Dissolve)**

DUP		Sample ID: 13041210-04CDUP				Units: mg/L		Analysis Date: 5/4/2013 05:20 AM		
Client ID:		Run ID: ICPMS2_130503B				SeqNo: 2305565		Prep Date: 5/1/2013		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	141.8	10	0	0	0	0-0	180.7	24.1		
Magnesium	59.24	4.0	0	0	0	0-0	75.7	24.4		
Sodium	170.5	4.0	0	0	0	0-0	172.2	0.957		

The following samples were analyzed in this batch:

1305016-01C 1305016-02C

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48124** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-48124-48124				Units: mg/Kg		Analysis Date: 5/3/2013 11:11 PM		
Client ID:		Run ID: ICPMS1_130503A				SeqNo: 2304978		Prep Date: 5/2/2013		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	ND	0.25								
Silver	0.001223	0.25								J
Zinc	ND	0.50								

LCS		Sample ID: LCS-48124-48124				Units: mg/Kg		Analysis Date: 5/3/2013 11:17 PM		
Client ID:		Run ID: ICPMS1_130503A				SeqNo: 2304980		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.43	0.25	5	0	88.6	80-120	0			
Barium	4.738	0.25	5	0	94.8	80-120	0			
Cadmium	4.558	0.10	5	0	91.2	80-120	0			
Chromium	4.747	0.25	5	0	94.9	80-120	0			
Copper	4.75	0.25	5	0	95	80-120	0			
Lead	4.944	0.25	5	0	98.9	80-120	0			
Nickel	4.72	0.25	5	0	94.4	80-120	0			
Selenium	4.02	0.25	5	0	80.4	80-120	0			
Silver	4.506	0.25	5	0	90.1	80-120	0			
Zinc	4.2	0.50	5	0	84	80-120	0			

MS		Sample ID: 1305016-02BMS				Units: mg/Kg		Analysis Date: 5/3/2013 08:44 AM		
Client ID: West Half		Run ID: ICPMS1_130502A				SeqNo: 2302824		Prep Date: 5/2/2013		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.16	1.8	7.133	4.379	109	75-125	0			
Barium	328.7	1.8	7.133	411.8	-1170	75-125	0			SO
Cadmium	7.411	0.71	7.133	0.4296	97.9	75-125	0			
Chromium	19.4	1.8	7.133	10.38	126	75-125	0			S
Copper	17.14	1.8	7.133	10.49	93.2	75-125	0			
Lead	18.31	1.8	7.133	9.942	117	75-125	0			
Nickel	19.45	1.8	7.133	12.02	104	75-125	0			
Selenium	6.969	1.8	7.133	0.392	92.2	75-125	0			
Silver	6.141	1.8	7.133	0.05322	85.4	75-125	0			
Zinc	55.56	3.6	7.133	44.29	158	75-125	0			SO

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48124** Instrument ID **ICPMS1** Method: **SW6020A**

MSD				Sample ID: 1305016-02BMSD			Units: mg/Kg		Analysis Date: 5/3/2013 08:50 AM	
Client ID: West Half				Run ID: ICPMS1_130502A			SeqNo: 2302825		Prep Date: 5/2/2013	
							DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.96	1.8	7.299	4.379	104	75-125	12.16	1.7	25	
Barium	416.1	1.8	7.299	411.8	57.7	75-125	328.7	23.5	25	SO
Cadmium	7.81	0.73	7.299	0.4296	101	75-125	7.411	5.25	25	
Chromium	20.65	1.8	7.299	10.38	141	75-125	19.4	6.25	25	S
Copper	17.18	1.8	7.299	10.49	91.5	75-125	17.14	0.185	25	
Lead	18.4	1.8	7.299	9.942	116	75-125	18.31	0.5	25	
Nickel	19.97	1.8	7.299	12.02	109	75-125	19.45	2.6	25	
Selenium	7.328	1.8	7.299	0.392	95	75-125	6.969	5.03	25	
Silver	6.219	1.8	7.299	0.05322	84.5	75-125	6.141	1.26	25	
Zinc	55.58	3.6	7.299	44.29	155	75-125	55.56	0.0368	25	SO

The following samples were analyzed in this batch: 1305016-01B 1305016-02B

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48105** Instrument ID **SVMS7** Method: **SW8270**

MBLK Sample ID: SBLKS1-48105-48105				Units: µg/Kg			Analysis Date: 5/3/2013 11:56 AM			
Client ID:		Run ID: SVMS7_130503A		SeqNo: 2304968		Prep Date: 5/2/2013		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								
<i>Surr: 2-Fluorobiphenyl</i>	1318	0	1667	0	79.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1619	0	1667	0	97.1	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1125	0	1667	0	67.5	37-107	0			

LCS Sample ID: SLCSS1-48105-48105				Units: µg/Kg			Analysis Date: 5/3/2013 11:23 AM			
Client ID:		Run ID: SVMS7_130503A		SeqNo: 2304965		Prep Date: 5/2/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	513	30	666.7	0	76.9	45-110	0			
Acenaphthylene	531.3	30	666.7	0	79.7	45-105	0			
Anthracene	528.3	30	666.7	0	79.2	55-105	0			
Benzo(a)anthracene	633.7	30	666.7	0	95	50-110	0			
Benzo(a)pyrene	659	30	666.7	0	98.8	50-110	0			
Benzo(b)fluoranthene	669.7	30	666.7	0	100	45-115	0			
Benzo(g,h,i)perylene	684.3	30	666.7	0	103	40-125	0			
Benzo(k)fluoranthene	549	30	666.7	0	82.3	45-115	0			
Chrysene	583.7	30	666.7	0	87.5	55-110	0			
Dibenzo(a,h)anthracene	692	30	666.7	0	104	40-125	0			
Fluoranthene	603.3	30	666.7	0	90.5	55-115	0			
Fluorene	519	30	666.7	0	77.8	50-110	0			
Indeno(1,2,3-cd)pyrene	752	30	666.7	0	113	40-120	0			
Naphthalene	552.3	30	666.7	0	82.8	40-105	0			
Pyrene	683.3	30	666.7	0	102	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1367	0	1667	0	82	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1693	0	1667	0	102	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1225	0	1667	0	73.5	37-107	0			

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48105** Instrument ID **SVMS7** Method: **SW8270**

MS				Units: µg/Kg			Analysis Date: 5/3/2013 02:26 PM			
Client ID:		Run ID: SVMS7_130503A		SeqNo: 2305863		Prep Date: 5/2/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	997.8	59	1313	0	76	45-110	0			
Acenaphthylene	1023	59	1313	0	77.9	45-105	0			
Anthracene	1005	59	1313	0	76.5	55-105	0			
Benzo(a)anthracene	1256	59	1313	0	95.6	50-110	0			
Benzo(a)pyrene	1337	59	1313	0	102	50-110	0			
Benzo(b)fluoranthene	1331	59	1313	0	101	45-115	0			
Benzo(g,h,i)perylene	1256	59	1313	0	95.6	40-125	0			
Benzo(k)fluoranthene	1115	59	1313	0	84.9	45-115	0			
Chrysene	1127	59	1313	0	85.8	55-110	0			
Dibenzo(a,h)anthracene	1295	59	1313	0	98.6	40-125	0			
Fluoranthene	1075	59	1313	0	81.9	55-115	0			
Fluorene	1035	59	1313	0	78.8	50-110	0			
Indeno(1,2,3-cd)pyrene	1453	59	1313	0	111	40-120	0			
Naphthalene	1099	59	1313	0	83.7	40-105	0			
Pyrene	1415	59	1313	0	108	45-125	0			
Surr: 2-Fluorobiphenyl	2758	0	3282	0	84	12-100	0			
Surr: 4-Terphenyl-d14	3614	0	3282	0	110	25-137	0			
Surr: Nitrobenzene-d5	2377	0	3282	0	72.4	37-107	0			

MSD				Units: µg/Kg			Analysis Date: 5/3/2013 02:47 PM			
Client ID:		Run ID: SVMS7_130503A		SeqNo: 2305864		Prep Date: 5/2/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	967	58	1291	0	74.9	45-110	997.8	3.14	30	
Acenaphthylene	1009	58	1291	0	78.1	45-105	1023	1.43	30	
Anthracene	993.4	58	1291	0	76.9	55-105	1005	1.16	30	
Benzo(a)anthracene	1246	58	1291	0	96.5	50-110	1256	0.801	30	
Benzo(a)pyrene	1297	58	1291	0	100	50-110	1337	3.07	30	
Benzo(b)fluoranthene	1299	58	1291	0	101	45-115	1331	2.43	30	
Benzo(g,h,i)perylene	1326	58	1291	0	103	40-125	1256	5.42	30	
Benzo(k)fluoranthene	1048	58	1291	0	81.2	45-115	1115	6.2	30	
Chrysene	1119	58	1291	0	86.6	55-110	1127	0.7	30	
Dibenzo(a,h)anthracene	1326	58	1291	0	103	40-125	1295	2.34	30	
Fluoranthene	1099	58	1291	0	85.1	55-115	1075	2.15	30	
Fluorene	977.9	58	1291	0	75.7	50-110	1035	5.63	30	
Indeno(1,2,3-cd)pyrene	1485	58	1291	0	115	40-120	1453	2.12	30	
Naphthalene	1065	58	1291	0	82.5	40-105	1099	3.13	30	
Pyrene	1370	58	1291	0	106	45-125	1415	3.18	30	
Surr: 2-Fluorobiphenyl	2604	0	3228	0	80.7	12-100	2758	5.74	40	
Surr: 4-Terphenyl-d14	3295	0	3228	0	102	25-137	3614	9.22	40	
Surr: Nitrobenzene-d5	2377	0	3228	0	73.6	37-107	2377	0.0154	40	

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

Client: HRL Compliance Solutions

Work Order: 1305016

Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48105**

Instrument ID **SVMS7**

Method: **SW8270**

The following samples were analyzed in this batch:

1305016-01B	1305016-02B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48111** Instrument ID **VMS9** Method: **SW8260**

MBLK		Sample ID: MBLK-48111-48111				Units: µg/Kg		Analysis Date: 5/3/2013 03:49 AM		
Client ID:		Run ID: VMS9_130502A				SeqNo: 2303480		Prep Date: 5/2/2013		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	987	0	1000	0	98.7	70-130	0			
Surr: 4-Bromofluorobenzene	947	0	1000	0	94.7	70-130	0			
Surr: Dibromofluoromethane	941.5	0	1000	0	94.2	70-130	0			
Surr: Toluene-d8	1024	0	1000	0	102	70-130	0			

MBLK		Sample ID: MBLK-48111-48111				Units: µg/Kg		Analysis Date: 5/3/2013 11:34 AM		
Client ID:		Run ID: VMS7_130503A				SeqNo: 2304320		Prep Date: 5/2/2013		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	1028	0	1000	0	103	70-130	0			
Surr: 4-Bromofluorobenzene	855.5	0	1000	0	85.6	70-130	0			
Surr: Dibromofluoromethane	1028	0	1000	0	103	70-130	0			
Surr: Toluene-d8	992	0	1000	0	99.2	70-130	0			

MBLK		Sample ID: MBLK-48111-48111				Units: µg/Kg		Analysis Date: 5/5/2013 03:09 AM		
Client ID:		Run ID: VMS5_130504B				SeqNo: 2304565		Prep Date: 5/2/2013		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	1011	0	1000	0	101	70-130	0			
Surr: 4-Bromofluorobenzene	967	0	1000	0	96.7	70-130	0			
Surr: Dibromofluoromethane	1009	0	1000	0	101	70-130	0			
Surr: Toluene-d8	1012	0	1000	0	101	70-130	0			

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48111** Instrument ID **VMS9** Method: **SW8260**

MBLK		Sample ID: MBLK-48111-48111				Units: µg/Kg		Analysis Date: 5/7/2013 01:08 AM		
Client ID:		Run ID: VMS5_130506B				SeqNo: 2307571		Prep Date: 5/2/2013		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	1004	0	1000	0	100	70-130		0		
Surr: 4-Bromofluorobenzene	1006	0	1000	0	101	70-130		0		
Surr: Dibromofluoromethane	988	0	1000	0	98.8	70-130		0		
Surr: Toluene-d8	1002	0	1000	0	100	70-130		0		

LCS		Sample ID: LCS-48111-48111				Units: µg/Kg		Analysis Date: 5/3/2013 02:32 AM		
Client ID:		Run ID: VMS9_130502A				SeqNo: 2303479		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1086	30	1000	0	109	75-125		0		
Ethylbenzene	1154	30	1000	0	115	75-125		0		
m,p-Xylene	2128	60	2000	0	106	80-125		0		
o-Xylene	1150	30	1000	0	115	75-125		0		
Toluene	1108	30	1000	0	111	70-125		0		
Xylenes, Total	3279	90	3000	0	109	75-125		0		
Surr: 1,2-Dichloroethane-d4	990	0	1000	0	99	70-130		0		
Surr: 4-Bromofluorobenzene	1006	0	1000	0	101	70-130		0		
Surr: Dibromofluoromethane	1024	0	1000	0	102	70-130		0		
Surr: Toluene-d8	1004	0	1000	0	100	70-130		0		

LCS		Sample ID: LCS-48111-48111				Units: µg/Kg		Analysis Date: 5/3/2013 10:18 AM		
Client ID:		Run ID: VMS7_130503A				SeqNo: 2304319		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	951	30	1000	0	95.1	75-125		0		
Ethylbenzene	947	30	1000	0	94.7	75-125		0		
m,p-Xylene	1936	60	2000	0	96.8	80-125		0		
o-Xylene	947.5	30	1000	0	94.8	75-125		0		
Toluene	953	30	1000	0	95.3	70-125		0		
Xylenes, Total	2884	90	3000	0	96.1	75-125		0		
Surr: 1,2-Dichloroethane-d4	1039	0	1000	0	104	70-130		0		
Surr: 4-Bromofluorobenzene	898.5	0	1000	0	89.8	70-130		0		
Surr: Dibromofluoromethane	1094	0	1000	0	109	70-130		0		
Surr: Toluene-d8	1019	0	1000	0	102	70-130		0		

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48111** Instrument ID **VMS9** Method: **SW8260**

LCS		Sample ID: LCS-48111-48111				Units: µg/Kg		Analysis Date: 5/5/2013 01:59 AM		
Client ID:		Run ID: VMS5_130504B				SeqNo: 2304564		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	910	30	1000	0	91	75-125	0			
Ethylbenzene	964	30	1000	0	96.4	75-125	0			
m,p-Xylene	1930	60	2000	0	96.5	80-125	0			
o-Xylene	965.5	30	1000	0	96.6	75-125	0			
Toluene	918.5	30	1000	0	91.8	70-125	0			
Xylenes, Total	2896	90	3000	0	96.5	75-125	0			
Surr: 1,2-Dichloroethane-d4	984.5	0	1000	0	98.4	70-130	0			
Surr: 4-Bromofluorobenzene	1016	0	1000	0	102	70-130	0			
Surr: Dibromofluoromethane	996.5	0	1000	0	99.6	70-130	0			
Surr: Toluene-d8	991.5	0	1000	0	99.2	70-130	0			

LCS		Sample ID: LCS-48111-48111				Units: µg/Kg		Analysis Date: 5/6/2013 11:58 PM		
Client ID:		Run ID: VMS5_130506B				SeqNo: 2307569		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	962.5	30	1000	0	96.2	75-125	0			
Ethylbenzene	958	30	1000	0	95.8	75-125	0			
m,p-Xylene	1901	60	2000	0	95	80-125	0			
o-Xylene	974	30	1000	0	97.4	75-125	0			
Toluene	930	30	1000	0	93	70-125	0			
Xylenes, Total	2875	90	3000	0	95.8	75-125	0			
Surr: 1,2-Dichloroethane-d4	987	0	1000	0	98.7	70-130	0			
Surr: 4-Bromofluorobenzene	991.5	0	1000	0	99.2	70-130	0			
Surr: Dibromofluoromethane	1011	0	1000	0	101	70-130	0			
Surr: Toluene-d8	996.5	0	1000	0	99.6	70-130	0			

MS		Sample ID: 1305054-01A MS				Units: µg/Kg		Analysis Date: 5/7/2013 09:20 AM		
Client ID:		Run ID: VMS5_130506B				SeqNo: 2307574		Prep Date: 5/2/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	881.5	30	1000	0	88.2	75-125	0			
Ethylbenzene	905.5	30	1000	0	90.6	75-125	0			
m,p-Xylene	1799	60	2000	0	90	80-125	0			
o-Xylene	911.5	30	1000	0	91.2	75-125	0			
Toluene	888	30	1000	0	88.8	70-125	0			
Xylenes, Total	2710	90	3000	0	90.4	75-125	0			
Surr: 1,2-Dichloroethane-d4	1012	0	1000	0	101	70-130	0			
Surr: 4-Bromofluorobenzene	1028	0	1000	0	103	70-130	0			
Surr: Dibromofluoromethane	970.5	0	1000	0	97	70-130	0			
Surr: Toluene-d8	1001	0	1000	0	100	70-130	0			

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48111** Instrument ID **VMS9** Method: **SW8260**

MSD				Sample ID: 1305054-01A MSD				Units: µg/Kg		Analysis Date: 5/7/2013 09:43 AM	
Client ID:			Run ID: VMS5_130506B			SeqNo: 2307576		Prep Date: 5/2/2013		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	879.5	30	1000	0	88	75-125	881.5	0.227	30		
Ethylbenzene	911.5	30	1000	0	91.2	75-125	905.5	0.66	30		
m,p-Xylene	1782	60	2000	0	89.1	80-125	1799	0.978	30		
o-Xylene	917.5	30	1000	0	91.8	75-125	911.5	0.656	30		
Toluene	872.5	30	1000	0	87.2	70-125	888	1.76	30		
Xylenes, Total	2699	90	3000	0	90	75-125	2710	0.425	30		
Surr: 1,2-Dichloroethane-d4	990	0	1000	0	99	70-130	1012	2.15	30		
Surr: 4-Bromofluorobenzene	1028	0	1000	0	103	70-130	1028	0	30		
Surr: Dibromofluoromethane	981	0	1000	0	98.1	70-130	970.5	1.08	30		
Surr: Toluene-d8	998	0	1000	0	99.8	70-130	1001	0.3	30		

The following samples were analyzed in this batch: 1305016-01A 1305016-02A

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48103** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 13041210-04C DUP				Units: mmhos/cm @25°F		Analysis Date: 5/3/2013 03:30 PM		
Client ID:		Run ID: WETCHEM_130503B				SeqNo: 2303514		Prep Date: 5/1/2013		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.26	0.050	0	0	0		2.53	11.3	50	

The following samples were analyzed in this batch:

1305016-01C	1305016-02C
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **48159** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-48159-48159				Units: mg/Kg		Analysis Date: 5/6/2013 11:00 AM		
Client ID:		Run ID: WETCHEM_130506B				SeqNo: 2305706		Prep Date: 5/3/2013		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-48159-48159				Units: mg/Kg		Analysis Date: 5/6/2013 11:00 AM		
Client ID:		Run ID: WETCHEM_130506B				SeqNo: 2305707		Prep Date: 5/3/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.869 0.50 1.984 0 94.2 75-110 0

MS		Sample ID: 1305035-01B MS				Units: mg/Kg		Analysis Date: 5/6/2013 11:00 AM		
Client ID:		Run ID: WETCHEM_130506B				SeqNo: 2305711		Prep Date: 5/3/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.202 0.49 1.976 0.03984 58.8 60-130 0 S

MSD		Sample ID: 1305035-01B MSD				Units: mg/Kg		Analysis Date: 5/6/2013 11:00 AM		
Client ID:		Run ID: WETCHEM_130506B				SeqNo: 2305712		Prep Date: 5/3/2013		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.159 0.50 1.984 0.03984 56.4 60-130 1.202 3.63 30 S

The following samples were analyzed in this batch:

1305016-01B 1305016-02B

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **R119926** Instrument ID **WETCHEM** Method: **SW9045D**

LCS				Sample ID: LCS-R119926-R119926				Units: s.u.			Analysis Date: 5/1/2013 09:00 AM			
Client ID:				Run ID: WETCHEM_130501D				SeqNo: 2299196			Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		4.32	0	4.4	0	98.2	90-110	0						

DUP				Sample ID: 13041209-01B DUP				Units: s.u.			Analysis Date: 5/1/2013 09:00 AM		
Client ID:				Run ID: WETCHEM_130501D				SeqNo: 2299198		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
pH		8.39	0	0	0	0	0-0	8.39	0	20			

The following samples were analyzed in this batch:

1305016-01B 1305016-02B

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

Client: HRL Compliance Solutions
Work Order: 1305016
Project: Koch Exploration Fed A-4 Treatment Cell 4/29/13

QC BATCH REPORT

Batch ID: **R119999** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R119999				Units: % of sample			Analysis Date: 5/1/2013 02:00 PM		
Client ID:	Run ID: MOIST_130501C				SeqNo: 2301263		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-R119999				Units: % of sample			Analysis Date: 5/1/2013 02:00 PM		
Client ID:	Run ID: MOIST_130501C				SeqNo: 2301255		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: 13041210-04BDUP				Units: % of sample			Analysis Date: 5/1/2013 02:00 PM		
Client ID:	Run ID: MOIST_130501C				SeqNo: 2301238		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 22.92 0.050 0 0 0 0-0 22.88 0.175 20

DUP	Sample ID: 1305016-01B DUP				Units: % of sample			Analysis Date: 5/1/2013 02:00 PM		
Client ID: East Half	Run ID: MOIST_130501C				SeqNo: 2301249		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.35 0.050 0 0 0 0-0 15.94 3.77 20

The following samples were analyzed in this batch:

1305016-01B 1305016-02B

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

Form 202r8

WORKORDER
#

1305016

• PAGE

1 of 1

DISPOSAL



By Lab or Return to Client

[illegible]

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

For metals or anions, please detail analytes below.

Comments: 	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		Dan Pinegar	4/29/2013	5:00 PM
RECEIVED BY		Keith Wierencia	4/30/13	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **30-Apr-13 09:30**

Work Order: **1305016**

Received by: **KRW**

Checklist completed by Keith Wurenga 01-May-13
eSignature Date

Reviewed by: Ann Preston 01-May-13
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/1/2013 8:48:10 AM</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: