



22-Dec-2014

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

Re: **Koch Exploration WRD Federal 30-34-D 12.15.14**

Work Order: **1412826**

Dear Kris,

ALS Environmental received 4 samples on 16-Dec-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 26.

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

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

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Environmental 

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RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: Koch Exploration WRD Federal 30-34-D 12.15.14
Work Order: 1412826

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>
1412826-01	WRD Federal 30-34-D Drill Cuttings (Composite)	Soil		12/15/2014 13:00	12/16/2014 09:30	<input type="checkbox"/>
1412826-02	Background 1	Soil		12/15/2014 12:15	12/16/2014 09:30	<input type="checkbox"/>
1412826-03	Background 2	Soil		12/15/2014 12:35	12/16/2014 09:30	<input type="checkbox"/>
1412826-04	Background 3	Soil		12/15/2014 12:48	12/16/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: Koch Exploration WRD Federal 30-34-D 12.15.14
Work Order: 1412826

Case Narrative

Batch 66038 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 66054 sample 1412826-01 reporting limit for Magnesium was elevated due to dilution for high concentrations of non-target analytes.

Batch 66071 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 66111 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Sample 1412826-01 DRO surrogate was slightly above control limits. No data requires qualification.

<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	Milligrams per Kilogram
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: 22-Dec-14

Client: HRL Compliance Solutions, Inc
Project: Koch Exploration WRD Federal 30-34-D 12.15.14
Sample ID: WRD Federal 30-34-D Drill Cuttings (Composite)
Collection Date: 12/15/2014 01:00 PM

Work Order: 1412826
Lab ID: 1412826-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/17/14	Analyst: IT
DRO (C10-C28)	240		5.4	mg/Kg-dry	1	12/18/2014 11:14 AM
Surr: 4-Terphenyl-d14	139	S	39-133	%REC	1	12/18/2014 11:14 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/18/14	Analyst: IT
GRO (C6-C10)	8.9		3.3	mg/Kg-dry	1	12/18/2014 03:56 PM
Surr: Toluene-d8	131		50-150	%REC	1	12/18/2014 03:56 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 12/16/14	Analyst: LR
Mercury	0.069		0.019	mg/Kg-dry	1	12/16/2014 05:27 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 12/16/14	Analyst: JEC
Arsenic	7.9		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Barium	1,900		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Cadmium	ND		0.34	mg/Kg-dry	1	12/16/2014 05:36 PM
Chromium	19		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Copper	41		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Lead	16		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Nickel	16		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Selenium	2.4		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Silver	ND		0.43	mg/Kg-dry	1	12/16/2014 05:36 PM
Zinc	66		0.86	mg/Kg-dry	1	12/16/2014 05:36 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/18/14	Analyst: JEC
Calcium	280		5.0	mg/L	10	12/18/2014 01:01 PM
Magnesium	ND		2.0	mg/L	10	12/18/2014 01:01 PM
Sodium	1,600		2.0	mg/L	10	12/18/2014 01:01 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 12/18/14	Analyst: JEC
Sodium Adsorption Ratio	26		0.010	none	1	12/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/17/14	Analyst: RM
Acenaphthene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Acenaphthylene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Anthracene	44		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Benzo(a)anthracene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Benzo(a)pyrene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Benzo(b)fluoranthene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Benzo(g,h,i)perylene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Benzo(k)fluoranthene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Chrysene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM

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

ALS Group USA, Corp

Date: 22-Dec-14

Client: HRL Compliance Solutions, Inc
Project: Koch Exploration WRD Federal 30-34-D 12.15.14
Sample ID: WRD Federal 30-34-D Drill Cuttings (Composite)
Collection Date: 12/15/2014 01:00 PM

Work Order: 1412826
Lab ID: 1412826-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Fluoranthene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Fluorene	30		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Indeno(1,2,3-cd)pyrene	ND		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Naphthalene	140		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Pyrene	44		8.7	µg/Kg-dry	1	12/19/2014 01:21 AM
Surr: 2-Fluorobiphenyl	75.9		12-100	%REC	1	12/19/2014 01:21 AM
Surr: 4-Terphenyl-d14	87.9		25-137	%REC	1	12/19/2014 01:21 AM
Surr: Nitrobenzene-d5	78.8		37-107	%REC	1	12/19/2014 01:21 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/18/14 Analyst: AK		
Benzene	120		39	µg/Kg-dry	1	12/18/2014 04:22 PM
Ethylbenzene	68		39	µg/Kg-dry	1	12/18/2014 04:22 PM
m,p-Xylene	180		79	µg/Kg-dry	1	12/18/2014 04:22 PM
o-Xylene	92		39	µg/Kg-dry	1	12/18/2014 04:22 PM
Toluene	230		39	µg/Kg-dry	1	12/18/2014 04:22 PM
Xylenes, Total	260		120	µg/Kg-dry	1	12/18/2014 04:22 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	12/18/2014 04:22 PM
Surr: 4-Bromofluorobenzene	103		70-130	%REC	1	12/18/2014 04:22 PM
Surr: Dibromofluoromethane	95.8		70-130	%REC	1	12/18/2014 04:22 PM
Surr: Toluene-d8	96.4		70-130	%REC	1	12/18/2014 04:22 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 12/18/14 Analyst: JB		
Electrical Conductivity @ Saturation	9.3		0.050	mmhos/cm @25	10	12/18/2014 03:45 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	19		0.66	mg/Kg-dry	1	12/17/2014 04:30 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/16/14 Analyst: MB		
Chromium, Hexavalent	ND		0.66	mg/Kg-dry	1	12/17/2014 03:30 PM
MOISTURE			E160.3M	Analyst: EVB		
Moisture	24		0.050	% of sample	1	12/16/2014 07:15 PM
PH			SW9045D	Prep: EXTRACT / 12/17/14 Analyst: AXL		
pH	12			s.u.	1	12/17/2014 03:00 PM

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

ALS Group USA, Corp

Date: 22-Dec-14

Client: HRL Compliance Solutions, Inc

Project: Koch Exploration WRD Federal 30-34-D 12.15.14

Work Order: 1412826

Sample ID: Background 1

Lab ID: 1412826-02

Collection Date: 12/15/2014 12:15 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	7.5		SW846 6010C 0.37	mg/Kg	Prep: SW3050B / 12/16/14 1	Analyst: JEC 12/16/2014 05:42 PM
SOLUBLE CATIONS FOR SAR						
Calcium	41		SW846 6010C 5.0	mg/L	Prep: USDA Method 20B / 12/18/14 10	Analyst: JEC 12/18/2014 01:06 PM
Magnesium	12		2.0	mg/L	10	12/18/2014 01:06 PM
Sodium	150		2.0	mg/L	10	12/18/2014 01:06 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	5.4		USDA H60 METHOD 0.010	none	Prep: USDA Method 20B / 12/18/14 1	Analyst: JEC 12/18/2014
ELECTRICAL CONDUCTIVITY (SAR)						
Electrical Conductivity @ Saturation	0.97		USDA H60 METHOD 0.050	mmhos/cm @25	Prep: USDA Method 20B / 12/18/14 10	Analyst: JB 12/18/2014 03:45 PM
PH						
pH	8.1		SW9045D	s.u.	Prep: EXTRACT / 12/17/14 1	Analyst: AXL 12/17/2014 03:00 PM

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

ALS Group USA, Corp**Date:** 22-Dec-14**Client:** HRL Compliance Solutions, Inc**Project:** Koch Exploration WRD Federal 30-34-D 12.15.14**Work Order:** 1412826**Sample ID:** Background 2**Lab ID:** 1412826-03**Collection Date:** 12/15/2014 12:35 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 12/16/14	Analyst: JEC
Arsenic	11		0.38	mg/Kg-dry	1	12/16/2014 05:47 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	11		0.050	% of sample	1	12/17/2014 10:20 AM

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

ALS Group USA, Corp

Date: 22-Dec-14

Client: HRL Compliance Solutions, Inc**Project:** Koch Exploration WRD Federal 30-34-D 12.15.14**Work Order:** 1412826**Sample ID:** Background 3**Lab ID:** 1412826-04**Collection Date:** 12/15/2014 12:48 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	9.3		SW846 6010C 0.37	mg/Kg-dry	1	Prep: SW3050B / 12/16/14 Analyst: JEC 12/16/2014 05:53 PM
MOISTURE						
Moisture	14		E160.3M 0.050	% of sample	1	Analyst: EVB 12/17/2014 10:20 AM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1412826

Project: Koch Exploration WRD Federal 30-34-D 12.15.14

Batch ID: 66073

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-66073-66073				Units: mg/Kg		Analysis Date: 12/18/2014 09:23 AM		
Client ID:		Run ID: GC8_141218A				SeqNo: 3082613		Prep Date: 12/17/2014		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	1.677	0	2	0	83.8	39-133	0			

LCS		Sample ID: DLCSS1-66073-66073				Units: mg/Kg		Analysis Date: 12/18/2014 09:51 AM		
Client ID:		Run ID: GC8_141218A				SeqNo: 3082614		Prep Date: 12/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	151.8	5.0	200	0	75.9	61-109	0			
Surr: 4-Terphenyl-d14	1.462	0	2	0	73.1	39-133	0			

MS		Sample ID: 1412826-01A MS				Units: mg/Kg		Analysis Date: 12/18/2014 10:19 AM		
Client ID: WRD Federal 30-34-D Drill Cuttings (Composite)		Run ID: GC8_141218A				SeqNo: 3082615		Prep Date: 12/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	413.4	7.8	313.6	179.5	74.6	48-110	0			
Surr: 4-Terphenyl-d14	3.479	0	3.136	0	111	39-133	0			

MSD		Sample ID: 1412826-01A MSD				Units: mg/Kg		Analysis Date: 12/18/2014 10:46 AM		
Client ID: WRD Federal 30-34-D Drill Cuttings (Composite)		Run ID: GC8_141218A				SeqNo: 3082616		Prep Date: 12/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	466.2	8.2	326.5	179.5	87.8	48-110	413.4	12	30	
Surr: 4-Terphenyl-d14	3.974	0	3.265	0	122	39-133	3.479	13.3	30	

The following samples were analyzed in this batch:

1412826-01A

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66128** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-66128-66128				Units: µg/Kg		Analysis Date: 12/18/2014 03:31 PM		
Client ID:		Run ID: GC9_141218A				SeqNo: 3083001		Prep Date: 12/18/2014		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>	<i>5778</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>116</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-66128-66128				Units: µg/Kg		Analysis Date: 12/18/2014 03:07 PM		
Client ID:		Run ID: GC9_141218A				SeqNo: 3083000		Prep Date: 12/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	476600	2,500	500000	0	95.3	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4682</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>93.6</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 1412826-01A MS				Units: µg/Kg		Analysis Date: 12/18/2014 04:21 PM		
Client ID: WRD Federal 30-34-D Drill Cuttings (Composite)		Run ID: GC9_141218A				SeqNo: 3083003		Prep Date: 12/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	522900	2,500	500000	6774	103	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4746</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>94.9</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 1412826-01A MSD				Units: µg/Kg		Analysis Date: 12/18/2014 04:46 PM		
Client ID: WRD Federal 30-34-D Drill Cuttings (Composite)		Run ID: GC9_141218A				SeqNo: 3083004		Prep Date: 12/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	516000	2,500	500000	6774	102	70-130	522900	1.34	30	
<i>Surr: Toluene-d8</i>	<i>4760</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>95.2</i>	<i>50-150</i>	<i>4746</i>	<i>0.295</i>	<i>30</i>	

The following samples were analyzed in this batch: | 1412826-01A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66040** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-66040-66040				Units: mg/Kg		Analysis Date: 12/16/2014 03:57 PM		
Client ID:		Run ID: HG1_141216A				SeqNo: 3078959		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-66040-66040				Units: mg/Kg		Analysis Date: 12/16/2014 03:59 PM		
Client ID:		Run ID: HG1_141216A				SeqNo: 3078961		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1838 0.020 0.1665 0 110 80-120 0

MS		Sample ID: 1412733-08BMS				Units: mg/Kg		Analysis Date: 12/16/2014 04:04 PM		
Client ID:		Run ID: HG1_141216A				SeqNo: 3078964		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1319 0.013 0.1085 0.01287 110 75-125 0

MSD		Sample ID: 1412733-08BMSD				Units: mg/Kg		Analysis Date: 12/16/2014 04:06 PM		
Client ID:		Run ID: HG1_141216A				SeqNo: 3078966		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1261 0.013 0.1046 0.01287 108 75-125 0.1319 4.49 35

The following samples were analyzed in this batch:

1412826-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66038** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-66038-66038				Units: mg/Kg		Analysis Date: 12/16/2014 04:18 PM		
Client ID:		Run ID: ICP2_141216A				SeqNo: 3079296		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.1465	0.50								J

LCS		Sample ID: LCS-66038-66038				Units: mg/Kg		Analysis Date: 12/16/2014 04:24 PM		
Client ID:		Run ID: ICP2_141216A				SeqNo: 3079297		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.746	0.25	5	0	94.9	80-120	0			
Barium	4.713	0.25	5	0	94.3	80-120	0			
Cadmium	4.449	0.50	5	0	89	80-120	0			
Chromium	4.764	0.25	5	0	95.3	80-120	0			
Copper	4.891	0.50	5	0	97.8	80-120	0			
Lead	4.81	0.25	5	0	96.2	80-120	0			
Nickel	4.743	0.25	5	0	94.9	80-120	0			
Selenium	4.805	0.50	5	0	96.1	80-120	0			
Silver	5.621	0.25	5	0	112	80-120	0			
Zinc	4.838	0.50	5	0	96.8	80-120	0			

MS		Sample ID: 1412801-02AMS				Units: mg/Kg		Analysis Date: 12/16/2014 04:46 PM		
Client ID:		Run ID: ICP2_141216A				SeqNo: 3079301		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.191	0.32	6.337	2.938	98.7	75-125	0			
Barium	239.8	0.32	6.337	233.6	99	75-125	0			O
Cadmium	5.663	0.63	6.337	-0.01413	89.6	75-125	0			
Chromium	36.86	0.32	6.337	29.34	119	75-125	0			O
Copper	20.74	0.63	6.337	15.12	88.7	75-125	0			
Lead	21.48	0.32	6.337	16.36	80.8	75-125	0			
Nickel	22.92	0.32	6.337	17.53	85	75-125	0			
Selenium	9.733	0.63	6.337	3.205	103	75-125	0			
Silver	7.708	0.32	6.337	-0.2704	126	75-125	0			S
Zinc	56.07	0.63	6.337	51.28	75.6	75-125	0			O

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66038** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 1412801-02AMSD				Units: mg/Kg		Analysis Date: 12/16/2014 04:52 PM		
Client ID:		Run ID: ICP2_141216A				SeqNo: 3079302		Prep Date: 12/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.544	0.31	6.258	2.938	106	75-125	9.191	3.77	20	
Barium	255.5	0.31	6.258	233.6	351	75-125	239.8	6.34	20	SO
Cadmium	5.603	0.63	6.258	-0.01413	89.8	75-125	5.663	1.08	20	
Chromium	37.53	0.31	6.258	29.34	131	75-125	36.86	1.79	20	SO
Copper	20.98	0.63	6.258	15.12	93.7	75-125	20.74	1.14	20	
Lead	22.32	0.31	6.258	16.36	95.4	75-125	21.48	3.88	20	
Nickel	23.39	0.31	6.258	17.53	93.7	75-125	22.92	2.05	20	
Selenium	9.718	0.63	6.258	3.205	104	75-125	9.733	0.151	20	
Silver	7.579	0.31	6.258	-0.2704	125	75-125	7.708	1.69	20	S
Zinc	58.25	0.63	6.258	51.28	111	75-125	56.07	3.81	20	O

The following samples were analyzed in this batch:

1412826-01A	1412826-02A	1412826-03A
1412826-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66054** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 1412806-02CDUP				Units: mg/L		Analysis Date: 12/18/2014 12:55 PM		
Client ID:		Run ID: ICP2_141218A				SeqNo: 3082373		Prep Date: 12/18/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	233.7	5.0	0	0	0	0-0	222.5	4.9		
Magnesium	61.3	2.0	0	0	0	0-0	58.46	4.74		
Sodium	707.9	2.0	0	0	0	0-0	732.3	3.39		

DUP		Sample ID: 1412806-02CDUP				Units: none		Analysis Date: 12/18/2014		
Client ID:		Run ID: SAR_141218A				SeqNo: 3082458		Prep Date: 12/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	10.65	0.010	0	0	0		11.29	5.82	50	

The following samples were analyzed in this batch: | 1412826-01C 1412826-02A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66071** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-66071-66071				Units: µg/Kg		Analysis Date: 12/18/2014 05:26 PM		
Client ID:		Run ID: SVMS8_141218A				SeqNo: 3084947		Prep Date: 12/17/2014		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	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1398	0	1667	0	83.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1727	0	1667	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1355	0	1667	0	81.3	37-107	0			

LCS		Sample ID: SLCSS1-66071-66071				Units: µg/Kg		Analysis Date: 12/18/2014 05:46 PM		
Client ID:		Run ID: SVMS8_141218A				SeqNo: 3084948		Prep Date: 12/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	433.3	6.7	666.7	0	65	45-110	0			
Acenaphthylene	427.7	6.7	666.7	0	64.1	45-105	0			
Anthracene	486	6.7	666.7	0	72.9	55-105	0			
Benzo(a)anthracene	557	6.7	666.7	0	83.5	50-110	0			
Benzo(a)pyrene	556.3	6.7	666.7	0	83.4	50-110	0			
Benzo(b)fluoranthene	556.3	6.7	666.7	0	83.4	45-115	0			
Benzo(g,h,i)perylene	616	6.7	666.7	0	92.4	40-125	0			
Benzo(k)fluoranthene	540.7	6.7	666.7	0	81.1	45-115	0			
Chrysene	572.7	6.7	666.7	0	85.9	55-110	0			
Dibenzo(a,h)anthracene	594.3	6.7	666.7	0	89.1	40-125	0			
Fluoranthene	515	6.7	666.7	0	77.2	55-115	0			
Fluorene	454.7	6.7	666.7	0	68.2	50-110	0			
Indeno(1,2,3-cd)pyrene	618.7	6.7	666.7	0	92.8	40-120	0			
Naphthalene	416.7	6.7	666.7	0	62.5	40-105	0			
Pyrene	617	6.7	666.7	0	92.5	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1127	0	1667	0	67.6	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1606	0	1667	0	96.3	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1216	0	1667	0	73	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66071** Instrument ID **SVMS8** Method: **SW846 8270D**

MS					Sample ID: 1412733-09B MS			Units: µg/Kg		Analysis Date: 12/18/2014 07:57 PM	
Client ID:			Run ID: SVMS8_141218A			SeqNo:3084950		Prep Date: 12/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1066	13	1268	0	84	45-110	0				
Acenaphthylene	845.4	13	1268	0	66.6	45-105	0				
Anthracene	919.6	13	1268	0	72.5	55-105	0				
Benzo(a)anthracene	1023	13	1268	0	80.6	50-110	0				
Chrysene	1148	13	1268	0	90.5	55-110	0				
Fluoranthene	1085	13	1268	0	85.5	55-115	0				
Fluorene	988.7	13	1268	0	77.9	50-110	0				
Naphthalene	1101	13	1268	294.2	63.6	40-105	0				
Pyrene	1006	13	1268	0	79.3	45-125	0				
Surr: 2-Fluorobiphenyl	2565	0	3171	0	80.9	12-100	0				
Surr: 4-Terphenyl-d14	2841	0	3171	0	89.6	25-137	0				
Surr: Nitrobenzene-d5	3323	0	3171	0	105	37-107	0				

MSD				Sample ID: 1412733-09B MSD				Units: µg/Kg		Analysis Date: 12/18/2014 08:18 PM	
Client ID:			Run ID: SVMS8_141218A			SeqNo:3084951		Prep Date: 12/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1150	13	1277	0	90.1	45-110	1066	7.6	30		
Acenaphthylene	937.7	13	1277	0	73.4	45-105	845.4	10.4	30		
Anthracene	927.5	13	1277	0	72.6	55-105	919.6	0.856	30		
Benzo(a)anthracene	1019	13	1277	0	79.8	50-110	1023	0.411	30		
Chrysene	1107	13	1277	0	86.7	55-110	1148	3.58	30		
Fluoranthene	1067	13	1277	0	83.5	55-115	1085	1.72	30		
Fluorene	1024	13	1277	0	80.2	50-110	988.7	3.49	30		
Naphthalene	1270	13	1277	294.2	76.4	40-105	1101	14.3	30		
Pyrene	1005	13	1277	0	78.7	45-125	1006	0.174	30		
Surr: 2-Fluorobiphenyl	3095	0	3192	0	97	12-100	2565	18.7	40		
Surr: 4-Terphenyl-d14	2774	0	3192	0	86.9	25-137	2841	2.41	40		
Surr: Nitrobenzene-d5	4449	0	3192	0	139	37-107	3323	29	40	S	

The following samples were analyzed in this batch: 1412826-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66124** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: MBLK-66124-66124				Units: µg/Kg		Analysis Date: 12/19/2014 06:38 AM		
Client ID:		Run ID: VMS5_141218B				SeqNo: 3084556		Prep Date: 12/18/2014		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								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1020</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>966</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>96.6</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1034</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>979</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.9</i>	<i>70-130</i>	<i>0</i>			

LCS		Sample ID: LCS-66124-66124				Units: µg/Kg		Analysis Date: 12/19/2014 04:55 AM		
Client ID:		Run ID: VMS5_141218B				SeqNo: 3084555		Prep Date: 12/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1014	30	1000	0	101	75-125	0			
Ethylbenzene	1038	30	1000	0	104	75-125	0			
m,p-Xylene	2074	60	2000	0	104	80-125	0			
o-Xylene	1038	30	1000	0	104	75-125	0			
Toluene	1066	30	1000	0	107	70-125	0			
Xylenes, Total	3111	90	3000	0	104	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>996.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.6</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>992.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.2</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1019</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1068</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>107</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

1412826-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66054** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 1412806-02C DUP				Units: mmhos/cm @25°C		Analysis Date: 12/18/2014 03:45 PM		
Client ID:		Run ID: WETCHEM_141218P				SeqNo: 3082736		Prep Date: 12/18/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	6.02	0.050	0	0	0		6.25	3.75	50	

The following samples were analyzed in this batch:

1412826-01C	1412826-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66108** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-66108-66108				Units: s.u.		Analysis Date: 12/17/2014 03:00 PM			
Client ID:		Run ID: WETCHEM_141217J				SeqNo:3080612		Prep Date: 12/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	3.94	0	4	0	98.5	90-110	0				

DUP		Sample ID: 1412820-02B DUP					Units: s.u.		Analysis Date: 12/17/2014 03:00 PM		
Client ID:		Run ID: WETCHEM_141217J			SeqNo: 3080620		Prep Date: 12/17/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	7.48	0	0	0	0	0-0	7.67	2.51	20		

The following samples were analyzed in this batch:

1412826-01A 1412826-02A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **66111** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK				Sample ID: MBLK-66111-66111				Units:mg/Kg			Analysis Date: 12/17/2014 03:30 PM			
Client ID:				Run ID: WETCHEM_141217K				SeqNo:3080906			Prep Date: 12/16/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Chromium, Hexavalent	0.264	0.50								J				

LCS				Sample ID: LCS-66111-66111				Units:mg/Kg			Analysis Date: 12/17/2014 03:30 PM			
Client ID:				Run ID: WETCHEM_141217K				SeqNo:3080905			Prep Date: 12/16/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Chromium, Hexavalent		1.972	0.50	2	0	98.6	80-120	0						

MS				Sample ID: 1412799-01B MS				Units:mg/Kg			Analysis Date: 12/17/2014 03:30 PM				
Client ID:				Run ID: WETCHEM_141217K				SeqNo:3080898			Prep Date: 12/16/2014			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Chromium, Hexavalent		0.4661	0.50	1.992	0.164	15.2	75-125	0			JS				

MS				Sample ID: 1412799-01B MSI				Units:mg/Kg			Analysis Date: 12/17/2014 03:30 PM			
Client ID:				Run ID: WETCHEM_141217K				SeqNo:3080900			Prep Date: 12/16/2014		DF: 100	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Chromium, Hexavalent		1080	50	2	0.164	54000	75-125	0			S			

MSD					Sample ID: 1412799-01B MSD				Units:mg/Kg			Analysis Date: 12/17/2014 03:30 PM			
Client ID:				Run ID: WETCHEM_141217K				SeqNo:3080899			Prep Date: 12/16/2014			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Chromium, Hexavalent		0.416	0.50	2	0.164	12.6	75-125	0.4661	0	20	JS				

The following samples were analyzed in this batch:

1412826-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **R154497** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R154497				Units: % of sample		Analysis Date: 12/16/2014 07:15 PM		
Client ID:		Run ID: MOIST_141216E				SeqNo: 3080995		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-R154497				Units: % of sample		Analysis Date: 12/16/2014 07:15 PM		
Client ID:		Run ID: MOIST_141216E				SeqNo: 3080994		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: 1412750-01A DUP				Units: % of sample		Analysis Date: 12/16/2014 07:15 PM		
Client ID:		Run ID: MOIST_141216E				SeqNo: 3080978		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 2.23 0.050 0 0 0 0-0 2.41 7.76 20

DUP		Sample ID: 1412826-01A DUP				Units: % of sample		Analysis Date: 12/16/2014 07:15 PM		
Client ID: WRD Federal 30-34-D Drill Cuttings (Composite)		Run ID: MOIST_141216E				SeqNo: 3080993		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 21.62 0.050 0 0 0 0-0 23.73 9.31 20

The following samples were analyzed in this batch:

1412826-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1412826
Project: Koch Exploration WRD Federal 30-34-D 12.15.14

QC BATCH REPORT

Batch ID: **R154582** Instrument ID **MOIST** Method: **E160.3M**

MBLK				Sample ID: WBLKS-R154582				Units: % of sample			Analysis Date: 12/17/2014 10:20 AM			
Client ID:				Run ID: MOIST_141217A				SeqNo: 3082497			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-R154582					Units: % of sample		Analysis Date: 12/17/2014 10:20 AM		
Client ID:			Run ID: MOIST_141217A			SeqNo: 3082496		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: 1412733-02B DUP					Units: % of sample		Analysis Date: 12/17/2014 10:20 AM		
Client ID:			Run ID: MOIST_141217A			SeqNo: 3082474		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 12.28 0.050 0 0 0 0-0 12.11 1.39 20

DUP		Sample ID: 1412859-01B DUP				Units: % of sample		Analysis Date: 12/17/2014 10:20 AM		
Client ID:			Run ID: MOIST_141217A			SeqNo: 3082486		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 8.97 0.050 0 0 0 0-0 9.01 0.445 20

The following samples were analyzed in this batch:

1412826-01A	1412826-03A	1412826-04A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group

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

Chain-of-Custody

Form 20218

WORKORDER #

1412826

DATE

12/15/2014

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PROJECT NAME Koch Exploration

SAMPLER

Jordan Carlo

SITE ID

WRD Federal 30-34-D

TURNAROUND

3-DAY

DISPOSAL

By Lab or Return to Client

PROJECT No.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME HCSI

BILL TO COMPANY HCSI

SEND REPORT TO HCSI- Krls Rowe

INVOICE ATTN TO Missy Delrose

ADDRESS 2385 F 1/2 Road

ADDRESS 2385 F 1/2 Road

CITY / STATE / ZIP Grand Junction, CO, 81505

CITY / STATE / ZIP Grand Junction, CO, 81505

PHONE 970-243-3271

PHONE 970-243-3271

FAX 970-243-3280

FAX 970-243-3280

E-MAIL krowe@hrlcomp.com

E-MAIL mdelrose@hrl.com

COGCC Table 910-1 Parameters

SAR

EC/pH

Arsenic

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

1

WRD Federal 30-34-D Drill Cuttings (Composite)

S

12/15/2014

13:00

2

8

X

2

Background 1

S

12/15/2014

12:15

1

8

X

X

X

3

Background 2

S

12/15/2014

12:35

1

8

X

4

Background 3

S

12/15/2014

12:48

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:

3-DAY TURN AROUND

3,3C

QC PACKAGE (check below)

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Jordan Carlo

12/15/2014

15:00

RECEIVED BY

RELINQUISHED BY

N.M.

12-15

15:00

RECEIVED BY

RELINQUISHED BY

N.M.

12-15

15:00

RECEIVED BY

11.3.3 AM 12/14

12/14/14

0930

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **16-Dec-14 09:30**

Work Order: **1412826**

Received by: **TBB**

Checklist completed by <u>Diane Shaw</u>	16-Dec-14	Reviewed by: <u>Ann Preston</u>	16-Dec-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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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>3.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>12/16/2014 1:15:19 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: (616) 399-6070
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81835

Origin ID: RLA



Ship Date: 15DEC14
 Act/Wgt: 70.0 LB
 CAD: 2264840/NET3550

Dim: 24 X 15 X 15 IN

SHIP TO: (616) 399-6070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL SENDER

HOLLAND, MI 49424

Delivery Address Bar Code



Ref # 121214-1
 Invoice #
 PO # Parachute
 Dept #

2 of 3

TUE - 16 DEC 10:30A
 PRIORITY OVERNIGHT

MP# 7722 4580 5643

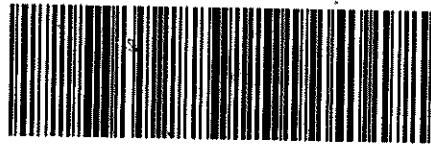
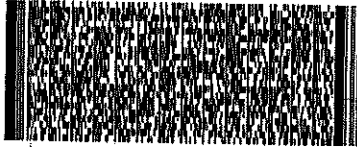
0263

Met# 7722 4580 6113

0281

XX HLMA

49424
 MI-US
 GRR



52221007518A03

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