

WPXENERGY Sample Location Map

Clough 2-A

39.505732 -107.897825
 Section 21, Township 6 South, Range 94 West

Sample Location	Transportation	Hydrography
Impacted Area	CO Highways	Ditch
PLSS	County Roads	Intermittent Stream
Township	Local Streets	Perennial Stream
Section	WPX Access	Waterbody
		Watershed

HCSI
 ENVIRONMENTAL CONSULTANTS
 H. COMPLIANCE SOLUTIONS, INC.

Author: B. Hall
Revision: 0
Date: 6/4/2014



30-May-2014

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Clough 2-A Confirmation Sample 5.20.14**

Work Order: **14051129**

Dear Mark,

ALS Environmental received 1 sample on 22-May-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 23.

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

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

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Work Order: 14051129

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>
14051129-01	Impacted Area	Soil		5/20/2014 12:20	5/22/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Work Order: 14051129

Case Narrative

Batch 58934 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58945 MS/MSD data for Hexavalent Chromium is not related to this project's samples. 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-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Sample ID: Impacted Area
Collection Date: 5/20/2014 12:20 PM

Work Order: 14051129
Lab ID: 14051129-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
DRO (C10-C28)	240		4.3	mg/Kg-dry	1	5/28/2014 03:09 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>94.0</i>		<i>39-133</i>	<i>%REC</i>	1	5/28/2014 03:09 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 5/22/14	Analyst: IT
GRO (C6-C10)	ND		2.6	mg/Kg-dry	1	5/29/2014 12:40 PM
<i>Surr: Toluene-d8</i>	<i>109</i>		<i>50-150</i>	<i>%REC</i>	1	5/29/2014 12:40 PM
MERCURY BY CVAA			SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
Mercury	0.064		0.014	mg/Kg-dry	1	5/27/2014 07:02 PM
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	7.2		2.0	mg/Kg-dry	5	5/24/2014 03:59 AM
Barium	4,100		20	mg/Kg-dry	50	5/25/2014 12:34 AM
Cadmium	ND		0.79	mg/Kg-dry	5	5/24/2014 03:59 AM
Chromium	11		2.0	mg/Kg-dry	5	5/24/2014 03:59 AM
Copper	14		2.0	mg/Kg-dry	5	5/24/2014 03:59 AM
Lead	10		2.0	mg/Kg-dry	5	5/24/2014 03:59 AM
Nickel	13		2.0	mg/Kg-dry	5	5/24/2014 03:59 AM
Selenium	ND		2.0	mg/Kg-dry	5	5/24/2014 03:59 AM
Silver	ND		2.0	mg/Kg-dry	5	5/24/2014 03:59 AM
Zinc	58		40	mg/Kg-dry	50	5/25/2014 12:34 AM
SOLUBLE CATIONS FOR SAR			SW6020A		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Calcium	560		10	mg/L	20	5/28/2014 01:43 AM
Magnesium	190		4.0	mg/L	20	5/28/2014 01:43 AM
Sodium	530		4.0	mg/L	20	5/28/2014 01:43 AM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Sodium Adsorption Ratio	5.0		0.010	none	1	5/27/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Acenaphthylene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Anthracene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Benzo(a)anthracene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Benzo(a)pyrene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Benzo(b)fluoranthene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Benzo(g,h,i)perylene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Benzo(k)fluoranthene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Chrysene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Sample ID: Impacted Area
Collection Date: 5/20/2014 12:20 PM

Work Order: 14051129
Lab ID: 14051129-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Fluoranthene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Fluorene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Indeno(1,2,3-cd)pyrene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Naphthalene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Pyrene	ND		6.9	µg/Kg-dry	1	5/28/2014 06:35 PM
Surr: 2-Fluorobiphenyl	71.2		12-100	%REC	1	5/28/2014 06:35 PM
Surr: 4-Terphenyl-d14	78.0		25-137	%REC	1	5/28/2014 06:35 PM
Surr: Nitrobenzene-d5	61.6		37-107	%REC	1	5/28/2014 06:35 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 5/22/14	Analyst: RS
Benzene	ND		32	µg/Kg-dry	1	5/29/2014 04:42 AM
Ethylbenzene	ND		32	µg/Kg-dry	1	5/29/2014 04:42 AM
m,p-Xylene	130		63	µg/Kg-dry	1	5/29/2014 04:42 AM
o-Xylene	ND		32	µg/Kg-dry	1	5/29/2014 04:42 AM
Toluene	42		32	µg/Kg-dry	1	5/29/2014 04:42 AM
Xylenes, Total	130		95	µg/Kg-dry	1	5/29/2014 04:42 AM
Surr: 1,2-Dichloroethane-d4	97.6		70-130	%REC	1	5/29/2014 04:42 AM
Surr: 4-Bromofluorobenzene	99.4		70-130	%REC	1	5/29/2014 04:42 AM
Surr: Dibromofluoromethane	97.5		70-130	%REC	1	5/29/2014 04:42 AM
Surr: Toluene-d8	98.8		70-130	%REC	1	5/29/2014 04:42 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 5/27/14	Analyst: JB
Electrical Conductivity @ Saturation	7.6		0.050	mmhos/cm @25	10	5/28/2014 12:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	10		0.53	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 5/23/14	Analyst: JJ
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	5/23/2014 12:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	5.4		0.050	% of sample	1	5/22/2014 04:52 PM
PH			SW9045D		Prep: EXTRACT / 5/23/14	Analyst: AT
pH	8.2			s.u.	1	5/23/2014 03:00 PM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 14051129

Project: Clough 2-A Confirmation Sample 5.20.14

Batch ID: 59015

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-59015-59015				Units: mg/Kg		Analysis Date: 5/27/2014 09:40 PM		
Client ID:		Run ID: GC8_140527A		SeqNo: 2782274		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	1.688	0	1.667	0	101	39-133	0			

LCS		Sample ID: DLCSS1-59015-59015				Units: mg/Kg		Analysis Date: 5/27/2014 10:10 PM		
Client ID:		Run ID: GC8_140527A		SeqNo: 2782275		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	143	4.2	166.7	0	85.8	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	1.37	0	1.667	0	82.2	39-133	0			

MS		Sample ID: 14051288-01B MS				Units: mg/Kg		Analysis Date: 5/27/2014 10:40 PM		
Client ID:		Run ID: GC8_140527A		SeqNo: 2782276		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	300.8	8.0	319.8	30.4	84.5	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	3.026	0	3.198	0	94.6	39-133	0			

MSD		Sample ID: 14051288-01B MSD				Units: mg/Kg		Analysis Date: 5/27/2014 11:10 PM		
Client ID:		Run ID: GC8_140527A		SeqNo: 2782277		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	265.6	7.9	314	30.4	74.9	48-110	300.8	12.4	30	
<i>Surr: 4-Terphenyl-d14</i>	2.707	0	3.14	0	86.2	39-133	3.026	11.1	30	

The following samples were analyzed in this batch:

14051129-01B

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58905** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-58905-58905				Units: µg/Kg		Analysis Date: 5/22/2014 05:19 PM			
Client ID:		Run ID: GC9_140522A				SeqNo: 2776313		Prep Date: 5/22/2014		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>5004</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>100</i>	<i>50-150</i>	<i>0</i>				

LCS		Sample ID: LCS-58905-58905				Units: µg/Kg		Analysis Date: 5/22/2014 04:03 PM			
Client ID:		Run ID: GC9_140522A				SeqNo: 2776312		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	517200	2,500	500000	0	103	70-130	0				
<i>Surr: Toluene-d8</i>	<i>6152</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>123</i>	<i>50-150</i>	<i>0</i>				

MS		Sample ID: 14051082-01A MS				Units: µg/Kg		Analysis Date: 5/22/2014 09:59 PM			
Client ID:		Run ID: GC9_140522A				SeqNo: 2779863		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	514200	2,500	500000	0	103	70-130	0				
<i>Surr: Toluene-d8</i>	<i>5673</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>113</i>	<i>50-150</i>	<i>0</i>				

MSD		Sample ID: 14051082-01A MSD				Units: µg/Kg		Analysis Date: 5/22/2014 10:25 PM			
Client ID:		Run ID: GC9_140522A				SeqNo: 2779864		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	495900	2,500	500000	0	99.2	70-130	514200	3.62	30		
<i>Surr: Toluene-d8</i>	<i>5144</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>103</i>	<i>50-150</i>	<i>5673</i>	<i>9.78</i>	<i>30</i>		

The following samples were analyzed in this batch:

14051129-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **59040** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-59040-59040				Units: mg/Kg		Analysis Date: 5/27/2014 06:57 PM			
Client ID:		Run ID: HG1_140527A				SeqNo: 2782041		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.001167	0.020								J	

LCS		Sample ID: LCS-59040-59040				Units: mg/Kg		Analysis Date: 5/27/2014 07:00 PM			
Client ID:		Run ID: HG1_140527A				SeqNo: 2782042		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.1636	0.020	0.1665		0	98.2	80-120	0			

MS		Sample ID: 14051306-02BMS				Units: mg/Kg		Analysis Date: 5/28/2014 04:42 PM			
Client ID:		Run ID: HG1_140528B				SeqNo: 2784058		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.1298	0.014	0.1173	0.008509	103	75-125		0			

MSD		Sample ID: 14051306-02BMSD				Units: mg/Kg		Analysis Date: 5/28/2014 04:44 PM			
Client ID:		Run ID: HG1_140528B				SeqNo: 2784059		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.138	0.014	0.1196	0.008509	108	75-125	0.1298	6.13	35		

The following samples were analyzed in this batch:

14051129-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:01 AM		
Client ID:		Run ID: ICPMS1_140523A			SeqNo: 2778963		Prep Date: 5/22/2014		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	0.02773	0.50								J

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/25/2014 12:08 AM		
Client ID:		Run ID: ICPMS1_140524A			SeqNo: 2779617		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1674	0.25								J

LCS		Sample ID: LCS-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:08 AM		
Client ID:		Run ID: ICPMS1_140523A			SeqNo: 2778964		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.298	0.25	5	0	86	80-120	0			
Barium	5.05	0.25	5	0	101	80-120	0			B
Cadmium	4.58	0.10	5	0	91.6	80-120	0			
Chromium	5.04	0.25	5	0	101	80-120	0			
Copper	5.045	0.25	5	0	101	80-120	0			
Lead	4.854	0.25	5	0	97.1	80-120	0			
Nickel	5.05	0.25	5	0	101	80-120	0			
Selenium	4.074	0.25	5	0	81.5	80-120	0			
Silver	4.996	0.25	5	0	99.9	80-120	0			
Zinc	4.15	0.50	5	0	83	80-120	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14051129
 Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: 58934 Instrument ID ICPMS1 Method: SW6020A

MS		Sample ID: 14051131-01AMS				Units: mg/Kg		Analysis Date: 5/24/2014 04:17 AM		
Client ID:		Run ID: ICPMS1_140523A			SeqNo: 2778992		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.67	1.8	7.112	5.756	83.2	75-125	0			
Barium	362.4	1.8	7.112	410.3	-673	75-125	0			BSO
Cadmium	7.429	0.71	7.112	0.8057	93.1	75-125	0			
Chromium	19.16	1.8	7.112	10.6	120	75-125	0			
Copper	19.84	1.8	7.112	13.8	85	75-125	0			
Lead	28.97	1.8	7.112	23.21	80.9	75-125	0			
Nickel	17.65	1.8	7.112	11.21	90.6	75-125	0			
Selenium	8.08	1.8	7.112	1.994	85.6	75-125	0			
Silver	6.476	1.8	7.112	0.06483	90.1	75-125	0			

MS		Sample ID: 14051131-01AMS				Units: mg/Kg		Analysis Date: 5/26/2014 09:54 PM		
Client ID:		Run ID: ICPMS1_140526A			SeqNo: 2781092		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	78.38	3.6	7.112	77.28	15.5	75-125	0			SO

MSD		Sample ID: 14051131-01AMSD				Units: mg/Kg		Analysis Date: 5/24/2014 04:23 AM		
Client ID:		Run ID: ICPMS1_140523A			SeqNo: 2778993		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.14	1.8	7.174	5.756	103	75-125	11.67	11.8	25	
Barium	373	1.8	7.174	410.3	-519	75-125	362.4	2.9	25	BSO
Cadmium	7.837	0.72	7.174	0.8057	98	75-125	7.429	5.35	25	
Chromium	20.22	1.8	7.174	10.6	134	75-125	19.16	5.37	25	S
Copper	20.45	1.8	7.174	13.8	92.7	75-125	19.84	3	25	
Lead	30.62	1.8	7.174	23.21	103	75-125	28.97	5.54	25	
Nickel	18.63	1.8	7.174	11.21	104	75-125	17.65	5.42	25	
Selenium	9.024	1.8	7.174	1.994	98	75-125	8.08	11	25	
Silver	6.775	1.8	7.174	0.06483	93.5	75-125	6.476	4.52	25	

MSD		Sample ID: 14051131-01AMSD				Units: mg/Kg		Analysis Date: 5/26/2014 11:37 PM		
Client ID:		Run ID: ICPMS1_140526A			SeqNo: 2781108		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	85.08	3.6	7.174	77.28	109	75-125	78.38	8.2	25	O

The following samples were analyzed in this batch:

14051129-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051131-03BDUP				Units: mg/L		Analysis Date: 5/28/2014 02:01 AM		
Client ID:		Run ID: ICPMS2_140527A				SeqNo: 2782400		Prep Date: 5/27/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	44.9	10	0	0	0	0-0	46.9	4.36		
Magnesium	11.67	4.0	0	0	0	0-0	12.4	6.02		
Sodium	47.98	4.0	0	0	0	0-0	57.48	18		

DUP		Sample ID: 14051131-03BDUP				Units: none		Analysis Date: 5/27/2014		
Client ID:		Run ID: SAR_140527A				SeqNo: 2782921		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.65	0.010	0	0	0		1.929	15.6	50	

The following samples were analyzed in this batch:

14051129-01C

Client: HRL Compliance Solutions, Inc
 Work Order: 14051129
 Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: 59014 Instrument ID SVMS8 Method: SW8270

MBLK		Sample ID: SBLKS1-59014-59014				Units: µg/Kg		Analysis Date: 5/28/2014 10:42 AM		
Client ID:		Run ID: SVMS8_140528A			SeqNo: 2783941		Prep Date: 5/27/2014		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								
Surr: 2-Fluorobiphenyl	1295	0	1667	0	77.7	12-100	0			
Surr: 4-Terphenyl-d14	1727	0	1667	0	104	25-137	0			
Surr: Nitrobenzene-d5	1369	0	1667	0	82.2	37-107	0			

LCS		Sample ID: SLCSS1-59014-59014				Units: µg/Kg		Analysis Date: 5/28/2014 11:03 AM		
Client ID:		Run ID: SVMS8_140528A			SeqNo: 2783942		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	546.7	6.7	666.7	0	82	45-110	0			
Acenaphthylene	540.3	6.7	666.7	0	81	45-105	0			
Anthracene	597.3	6.7	666.7	0	89.6	55-105	0			
Benzo(a)anthracene	612	6.7	666.7	0	91.8	50-110	0			
Benzo(a)pyrene	650.3	6.7	666.7	0	97.5	50-110	0			
Benzo(b)fluoranthene	627	6.7	666.7	0	94	45-115	0			
Benzo(g,h,i)perylene	572	6.7	666.7	0	85.8	40-125	0			
Benzo(k)fluoranthene	611.3	6.7	666.7	0	91.7	45-115	0			
Chrysene	601.3	6.7	666.7	0	90.2	55-110	0			
Dibenzo(a,h)anthracene	581.3	6.7	666.7	0	87.2	40-125	0			
Fluoranthene	608.7	6.7	666.7	0	91.3	55-115	0			
Fluorene	540.7	6.7	666.7	0	81.1	50-110	0			
Indeno(1,2,3-cd)pyrene	617.3	6.7	666.7	0	92.6	40-120	0			
Naphthalene	514.7	6.7	666.7	0	77.2	40-105	0			
Pyrene	617.3	6.7	666.7	0	92.6	45-125	0			
Surr: 2-Fluorobiphenyl	1281	0	1667	0	76.8	12-100	0			
Surr: 4-Terphenyl-d14	1701	0	1667	0	102	25-137	0			
Surr: Nitrobenzene-d5	1474	0	1667	0	88.4	37-107	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14051129
 Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: 59014 Instrument ID SVMS8 Method: SW8270

MS				Sample ID: 14051221-01A MS			Units: µg/Kg		Analysis Date: 5/28/2014 12:53 PM		
Client ID:		Run ID: SVMS8_140528A			SeqNo: 2783945		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1062	13	1272	0	83.5	45-110	0				
Acenaphthylene	1050	13	1272	0	82.5	45-105	0				
Anthracene	1166	13	1272	0	91.7	55-105	0				
Benzo(a)anthracene	1219	13	1272	10.53	95.1	50-110	0				
Benzo(a)pyrene	1265	13	1272	9.218	98.7	50-110	0				
Benzo(b)fluoranthene	1192	13	1272	10.21	92.9	45-115	0				
Benzo(g,h,i)perylene	1214	13	1272	8.889	94.7	40-125	0				
Benzo(k)fluoranthene	1236	13	1272	4.938	96.8	45-115	0				
Chrysene	1187	13	1272	6.584	92.8	55-110	0				
Dibenzo(a,h)anthracene	1188	13	1272	0	93.4	40-125	0				
Fluoranthene	1169	13	1272	13.17	90.9	55-115	0				
Fluorene	1035	13	1272	0	81.4	50-110	0				
Indeno(1,2,3-cd)pyrene	1244	13	1272	8.889	97.1	40-120	0				
Naphthalene	977.2	13	1272	0	76.8	40-105	0				
Pyrene	1252	13	1272	12.84	97.4	45-125	0				
Surr: 2-Fluorobiphenyl	2482	0	3179	0	78.1	12-100	0				
Surr: 4-Terphenyl-d14	3399	0	3179	0	107	25-137	0				
Surr: Nitrobenzene-d5	2748	0	3179	0	86.4	37-107	0				

MSD				Sample ID: 14051221-01A MSD			Units: µg/Kg		Analysis Date: 5/28/2014 01:13 PM		
Client ID:		Run ID: SVMS8_140528A			SeqNo: 2783946		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1083	13	1295	0	83.6	45-110	1062	1.95	30		
Acenaphthylene	1070	13	1295	0	82.6	45-105	1050	1.96	30		
Anthracene	1164	13	1295	0	89.8	55-105	1166	0.203	30		
Benzo(a)anthracene	1228	13	1295	10.53	94	50-110	1219	0.681	30		
Benzo(a)pyrene	1278	13	1295	9.218	98	50-110	1265	1.08	30		
Benzo(b)fluoranthene	1231	13	1295	10.21	94.3	45-115	1192	3.27	30		
Benzo(g,h,i)perylene	1222	13	1295	8.889	93.7	40-125	1214	0.676	30		
Benzo(k)fluoranthene	1208	13	1295	4.938	92.9	45-115	1236	2.31	30		
Chrysene	1178	13	1295	6.584	90.4	55-110	1187	0.769	30		
Dibenzo(a,h)anthracene	1276	13	1295	0	98.5	40-125	1188	7.1	30		
Fluoranthene	1173	13	1295	13.17	89.5	55-115	1169	0.355	30		
Fluorene	1074	13	1295	0	82.9	50-110	1035	3.72	30		
Indeno(1,2,3-cd)pyrene	1260	13	1295	8.889	96.6	40-120	1244	1.27	30		
Naphthalene	986.9	13	1295	0	76.2	40-105	977.2	0.986	30		
Pyrene	1256	13	1295	12.84	96	45-125	1252	0.3	30		
Surr: 2-Fluorobiphenyl	2573	0	3238	0	79.5	12-100	2482	3.59	40		
Surr: 4-Terphenyl-d14	3422	0	3238	0	106	25-137	3399	0.688	40		
Surr: Nitrobenzene-d5	2831	0	3238	0	87.4	37-107	2748	2.99	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **59014** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

14051129- 01B

Client: HRL Compliance Solutions, Inc
 Work Order: 14051129
 Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58904** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: MBLK-58904-58904			Units: µg/Kg		Analysis Date: 5/22/2014 03:54 PM			
Client ID:		Run ID: VMS6_140522A			SeqNo: 2777015		Prep Date: 5/22/2014		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>1048</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>995.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.6</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>929</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>92.9</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>992</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.2</i>	<i>70-130</i>	<i>0</i>			

LCS		Sample ID: LCS-58904-58904			Units: µg/Kg		Analysis Date: 5/22/2014 02:36 PM			
Client ID:		Run ID: VMS6_140522A			SeqNo: 2777014		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1022	30	1000	0	102	75-125	0			
Ethylbenzene	1030	30	1000	0	103	75-125	0			
m,p-Xylene	2038	60	2000	0	102	80-125	0			
o-Xylene	1003	30	1000	0	100	75-125	0			
Toluene	992	30	1000	0	99.2	70-125	0			
Xylenes, Total	3041	90	3000	0	101	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1018</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>1016</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1012</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1004</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

14051129-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Dup	Sample ID: 14051131-03B DUP					Units: mmhos/cm @25°C	Analysis Date: 5/28/2014 12:15 PM			
Client ID:	Run ID: WETCHEM_140528B			SeqNo: 2782946	Prep Date: 5/27/2014	DF: 10				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.564	0.050	0	0	0		0.606	7.18	50	

The following samples were analyzed in this batch:

14051129-01C

Client: HRL Compliance Solutions, Inc
 Work Order: 14051129
 Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58945** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-58945-58945		Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM					
Client ID:	Run ID: WETCHEM_140523A		SeqNo: 2777166		Prep Date: 5/23/2014 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-58945-58945		Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM					
Client ID:	Run ID: WETCHEM_140523A		SeqNo: 2777167		Prep Date: 5/23/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.701 0.50 1.992 0 85.4 80-120 0

MS	Sample ID: 14051124-01BMS		Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM					
Client ID:	Run ID: WETCHEM_140523A		SeqNo: 2777174		Prep Date: 5/23/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.808 0.50 2 0.336 73.6 75-125 0 S

MS	Sample ID: 14051124-01BMSI		Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM					
Client ID:	Run ID: WETCHEM_140523A		SeqNo: 2777176		Prep Date: 5/23/2014 DF: 100					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 882 50 1043 0.336 84.5 75-125 0

MSD	Sample ID: 14051124-01BMSD		Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM					
Client ID:	Run ID: WETCHEM_140523A		SeqNo: 2777175		Prep Date: 5/23/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.756 0.50 2 0.336 71 75-125 1.808 2.92 20 S

The following samples were analyzed in this batch:

14051129-01B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14051129
 Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **R141309** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R141309				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C				SeqNo: 2776941		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-R141309				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C				SeqNo: 2776940		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: 14051122-03B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C				SeqNo: 2776923		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 2.21 0.901 20

DUP	Sample ID: 14051122-10B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C				SeqNo: 2776932		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 3.07 0.050 0 0 0 0-0 2.67 13.9 20

The following samples were analyzed in this batch:

14051129-01B

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



ALS Laboratory Group

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

Chain-of-Custody

Form 282r

WORKORDER #	14051129
-------------	----------

PROJECT NAME	Clough 2-A	SAMPLER	Reed Wold	DATE	5/21/14	PAGE	1 of 1
PROJECT No	Confirmation Sample	SITE ID	Clough 2-A	TURNAROUND	Standard	DISPOSAL	<input checked="" type="radio"/> By Lab or <input type="radio"/> Return to Client

COMPANY NAME	HRL Compliance	BILL TO COMPANY	HRL
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Mark Mumby
ADDRESS	2385 F 1/2 Rd	ADDRESS	
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	
PHONE	970-243-3271	PHONE	
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	

BTEX/GRO
 DRUG/PAH/Metals
 SARI/E/PH

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC												
1	Impacted Area	SO	5/21/14	12:20	3	8		X	X	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: 2.400 	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	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 9-6035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Reed Wold	5/21/14	4:00
RECEIVED BY		W.M.	5-21-14	2:10
RELINQUISHED BY		W.M.	5-21-14	4:00
RECEIVED BY		KEITH WIERENKA	5/22/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **22-May-14 09:30**

Work Order: **14051129**

Received by: **KRW**

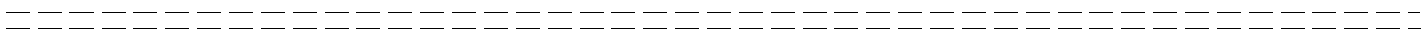
Checklist completed by Keith Warena 22-May-14
eSignature Date

Reviewed by: Ann Preston 22-May-14
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):	<input type="text" value="2.4 C"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="5/22/2014 12:22:22 PM"/>		
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:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

From: (616) 399-6070
Sample Receiving
ALS Laboratory Group
3352 128th Avenue
Holland, MI 49424

Origin ID: GRRR



Ship Date: 21MAY14
ActWgt: 72.0 LB
CAD: 2284840/NET3490
Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



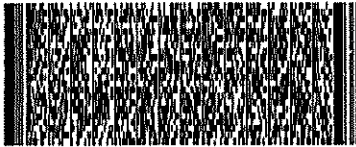
SHIP TO: (616) 399-6070
sample receiving
ALS Laboratory Group
3352 128TH AVE
HOLLAND, MI 49424

BILL SENDER

Ref # 052114-2
Invoice #
PO # Parachute
Dept #

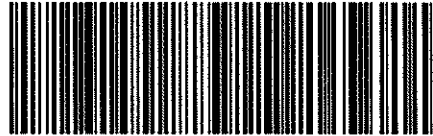
THU - 22 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 7700 5970 9173
0251



68 GRRR

49424
MI-US
GRR



022G140207F220

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29-May-2014

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Clough 2-A Backgrounds 5.20.14**

Work Order: **14051131**

Dear Mark,

ALS Environmental received 3 samples on 22-May-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 13.

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

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

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Work Order: 14051131

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>
14051131-01	Clough 2-A B-1	Soil		5/20/2014 12:30	5/22/2014 09:30	<input type="checkbox"/>
14051131-02	Clough 2-A B-2	Soil		5/20/2014 12:35	5/22/2014 09:30	<input type="checkbox"/>
14051131-03	Clough 2-A B-3	Soil		5/20/2014 12:45	5/22/2014 09:30	<input type="checkbox"/>

<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
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: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-1
Collection Date: 5/20/2014 12:30 PM

Work Order: 14051131
Lab ID: 14051131-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	5.8		1.8	mg/Kg-dry	5	5/24/2014 04:11 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	1.3		0.050	% of sample	1	5/22/2014 04:52 PM

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

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-2
Collection Date: 5/20/2014 12:35 PM

Work Order: 14051131
Lab ID: 14051131-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	8.4		2.0	mg/Kg-dry	5	5/24/2014 04:35 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	7.1		0.050	% of sample	1	5/22/2014 04:52 PM

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

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-3
Collection Date: 5/20/2014 12:45 PM

Work Order: 14051131
Lab ID: 14051131-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS						
Arsenic	7.6		SW6020A 2.0	mg/Kg-dry	Prep: SW3050B / 5/22/14 5	Analyst: ML 5/24/2014 04:41 AM
SOLUBLE CATIONS FOR SAR						
Calcium	47		SW6020A 10	mg/L	Prep: USDA Method 20B / 5/27/14 20	Analyst: RH 5/28/2014 01:55 AM
Magnesium	12		4.0	mg/L	20	5/28/2014 01:55 AM
Sodium	57		4.0	mg/L	20	5/28/2014 01:55 AM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	1.9		USDA H60 METHO 0.010	none	Prep: USDA Method 20B / 5/27/14 1	Analyst: RH 5/27/2014
ELECTRICAL CONDUCTIVITY (SAR)						
Electrical Conductivity @ Saturation	0.61		USDA H60 METHO 0.050	mmhos/cm @25	Prep: USDA Method 20B / 5/27/14 10	Analyst: JB 5/28/2014 12:15 PM
MOISTURE						
Moisture	10		A2540 G 0.050	% of sample	1	Analyst: AT 5/22/2014 04:52 PM
PH						
pH	8.6		SW9045D	s.u.	Prep: EXTRACT / 5/23/14 1	Analyst: AT 5/23/2014 03:00 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:01 AM		
Client ID:		Run ID: ICPMS1_140523A		SeqNo: 2778963		Prep Date: 5/22/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS		Sample ID: LCS-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:08 AM		
Client ID:		Run ID: ICPMS1_140523A		SeqNo: 2778964		Prep Date: 5/22/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.298	0.25	5	0	86	80-120	0			

MS		Sample ID: 14051131-01AMS				Units: mg/Kg		Analysis Date: 5/24/2014 04:17 AM		
Client ID: Clough 2-A B-1		Run ID: ICPMS1_140523A		SeqNo: 2778992		Prep Date: 5/22/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.67	1.8	7.112	5.756	83.2	75-125	0			

MSD		Sample ID: 14051131-01AMSD				Units: mg/Kg		Analysis Date: 5/24/2014 04:23 AM		
Client ID: Clough 2-A B-1		Run ID: ICPMS1_140523A		SeqNo: 2778993		Prep Date: 5/22/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.14	1.8	7.174	5.756	103	75-125	11.67	11.8	25	

The following samples were analyzed in this batch:

14051131-01A	14051131-02A	14051131-03A
--------------	--------------	--------------

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051131-03BDUP				Units: mg/L		Analysis Date: 5/28/2014 02:01 AM		
Client ID: Clough 2-A B-3		Run ID: ICPMS2_140527A				SeqNo: 2782400		Prep Date: 5/27/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	44.9	10	0	0	0	0-0	46.9	4.36		
Magnesium	11.67	4.0	0	0	0	0-0	12.4	6.02		
Sodium	47.98	4.0	0	0	0	0-0	57.48	18		

DUP		Sample ID: 14051131-03BDUP				Units: none		Analysis Date: 5/27/2014		
Client ID: Clough 2-A B-3		Run ID: SAR_140527A				SeqNo: 2782921		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.65	0.010	0	0	0		1.929	15.6	50	

The following samples were analyzed in this batch:

14051131-03B

Batch ID: **58939** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Dup		Sample ID: 14051131-03B DUP				Units: mmhos/cm @25°C		Analysis Date: 5/28/2014 12:15 PM		
Client ID: Clough 2-A B-3		Run ID: WETCHEM_140528B				SeqNo: 2782946		Prep Date: 5/27/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.564	0.050	0	0	0		0.606	7.18	50	

The following samples were analyzed in this batch:

14051131-03B

Client: HRL Compliance Solutions, Inc
 Work Order: 14051131
 Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **R141309** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R141309				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C			SeqNo: 2776941		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-R141309				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C			SeqNo: 2776940		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: 14051122-03B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C			SeqNo: 2776923		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 2.21 0.901 20

DUP	Sample ID: 14051122-10B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM		
Client ID:	Run ID: MOIST_140522C			SeqNo: 2776932		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 3.07 0.050 0 0 0 0-0 2.67 13.9 20

The following samples were analyzed in this batch:

14051131-01A	14051131-02A	14051131-03A
--------------	--------------	--------------

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



ALS Laboratory Group

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

Chain-of-Custody

Form 202r8

WORKORDER #	14051131
-------------	----------

PROJECT NAME	WPX Clough 2-A	SAMPLER	Reed Wold	DATE	5/21/14
PROJECT No.	Ball grounds	SITE ID	clough 2-A	TURNAROUND	Standard
COMPANY NAME	HRL Compliance	EDD FORMAT			
SEND REPORT TO	Mark Mumby	PURCHASE ORDER			
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	HRL		
CITY / STATE / ZIP	Grand Junction, CO 81506	INVOICE ATTN TO	K Mall Mumby		
PHONE	970-243-3271	ADDRESS			
FAX	970-243-3280	CITY / STATE / ZIP			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE			
		E-MAIL			

Arsenic
 SARA/CLP/PL


Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC													
1	clough 2-A B-1	SO	5/20/14	12:30	1			X												
2	clough 2-A B-2	↓	↓	12:35	1			X												
3	clough 2-A B-3	↓	↓	12:45	2			X	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:

2.40L



QC PACKAGE (check below)	
<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
<input type="checkbox"/>	LEVEL III (Std QC + forms)
<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Reed Wold	5/21/14	4:00
RECEIVED BY		Mark Mumby	5/21/14	4:00
RELINQUISHED BY		Mark Mumby	5/21/14	4:00
RECEIVED BY		Kevin W. Ferrera	5/22/14	0930
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: **22-May-14 09:30**

Work Order: **14051131**

Received by: **KRW**

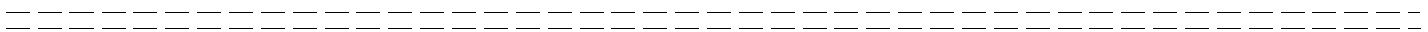
Checklist completed by Keith Warena 22-May-14
eSignature Date

Reviewed by: Ann Preston 22-May-14
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):	<input type="text" value="2.4 C"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="5/22/2014 12:26:50 PM"/>		
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:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

From: (616) 399-6070
Sample Receiving
ALS Laboratory Group
3352 128th Avenue
Holland, MI 49424

Origin ID: GRRR



Ship Date: 21MAY14
AcWgt: 72.0 LB
CAD: 2264840DNET3400
Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



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

BILL SENDER

Ref # 052114-2
Invoice #
PI # Parachute
Dept #

HOLLAND, MI 49424

THU - 22 MAY 10:30A
PRIORITY OVERNIGHT

TRKM 7700 5970 9173
0201



68 GRRR

49424
MI-US
GRR



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